



Switch Catalogue

Issue 9



About Engelking

Engelking Elektronik GmbH is an owner-managed company with a corporate history of 40 years. We are the leading solution provider for waterproof switches and connectors and are known for our broad portfolio.

No matter how challenging your requirements are, we are guaranteed to find the best solution – whether with a standard or a specially developed, individual product.

In this catalogue you will find a wide range of pushbuttons and piezo switches for all applications and uses.

Please feel free to contact us at any time if you have any questions. We look forward to helping you choose the right switches.



Engelking Elektronik GmbH

Albstraße 16
D-78609 Tübingen

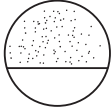
Tel.: +49 (0)7464 9865 0
Fax: +49 (0)7464 9865 71
E-Mail: info@engelking.de
www.engelking.de

Geschäftsführer: Amos Engelking
UST-ID-Nr.: DE 189 714 518
Amtsgericht Freiburg (HRB 602241)



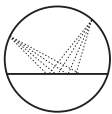
IP Degrees

First Digit

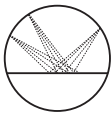


6: Dust tight. No ingress of dust.

Second Digit

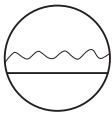


5: Protected against jets of water from any direction.

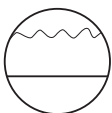


6: Protected against powerful jets of water. Prevents ingress sufficient to cause harm.

Switches that fulfill the requirements of IPX6 also fulfill the requirements for IPX1 to IPX5.

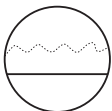


7: Protected against the effects of temporary immersion in water (submerged for 30 minutes at 1m depth).



8: Protected against the effects of continuous immersion in water (submerged for more than 30 minutes at more than 1m depth, to be specified).

Extended IP (eIPxx) for harsh environments



C: Cleaning chemicals added to water, depth and duration to be specified.



O: Duty cycle operated under water, depth to be specified.

Extended IP digits can be combined.

General Information

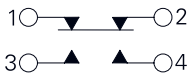
Key

 19mm	Mounting diameter	IP68	IP degree
 21.5mm	Outer diameter	eIPOC	Extended IP degree
 10mm	Depth	LED	LED illuminated switch
	Recommended for engraving (non-rotating button)		

Definition of Terms

- **Circuit:** The contact arrangement with the switch actuator and contacts in their free position.
- **Maintained Switch:** A switch with contacts that sustain in operated position when actuating force is removed.
- **Momentary Switch:** A switch with contacts that return from operated to free position when actuation force is removed
- **Fast Connect Terminals:** A plug-in type terminal designed for quick switch wiring.
- **Normally Closed Contacts (N.C.):** Provide a normally closed circuit when actuator is in free position.
- **Normally Open Contacts (N.O.):** Provide a normally open circuit when actuator is in free position.

Switch Types



Form Z: This breaks the circuit in two places. Also referred to as **Double Break Contacts**.



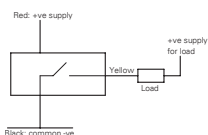
Form C: Switch which may either make or break a circuit, depending on how it is wired. Also referred to as **Single-Pole Double-Throw (SPDT)**.



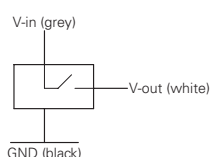
Form A: Normally open (N.O.) switch with only one moving and one stationary contact. Also referred to as **Single-Pole Single-Throw (SPST)**.



Form A: Normally closed (N.C.) switch with only one moving and one stationary contact.



Common Ground (NMOS): Is based on electronic circuitry. Switched output is pulled to ground when operated.



Common Plus (PMOS): Is based on electronic circuitry. Switched output is pulled to plus when operated.

Product Overview

Mechanical Switches

	Series	Depth	Mounting Diameter	Outer Diameter	IP Degree	LED	Switch Function	Termination	Button Type	Circuit	
	CM12	12.3mm	12mm	13.8mm	IP67		Momentary	2.0×0.5mm	Flat	Form A	10
	CMI12	12.3mm	12mm	13.8mm	IP67	Ring	Momentary	2.0×0.5mm	Flat	Form A	12
	CM08	18mm	12mm	14mm	IP67		Momentary	2.0×0.5mm	Flat, raised	Form A	14
	CMI08	19.1mm	12mm	14mm	IP67	Ring, dot	Momentary	2.0×0.5mm	Flat, raised	Form A	16
	CM18	13.7mm	16mm	18mm	IP67		Momentary	2.0×0.5mm	Flat	Form A	18
	CMI18	13.7mm	16mm	18mm	IP67	Ring	Momentary	2.0×0.5mm	Flat	Form A	20
	CM10	17.5mm, 20.1mm	16mm	18mm	IP65		Momentary	Screw, 2.0×0.5mm	Flat, raised, domed	Form A, Form B	22
	CMI10	20mm, 22.5mm	16mm	18mm	IP65	Ring, dot, power	Momentary	Screw, 2.0×0.5mm	Flat, raised, domed	Form A	24
	CM11	20.1mm	16mm	18mm	IP65		Momentary	Screw, 2.0×0.5mm	Flat, raised	Form A, Form B	26
	CMI11	20mm	16mm	18mm	IP65	Ring, dot	Momentary	2.0×0.5mm	Flat, raised	Form A	28
	CM57	19.7mm	16mm	18.5mm	IP67		Momentary, maintained	50cm leads, PC pins, 2.8×0.5mm	Flat	Form A	30
	CMI57	21mm	16mm	18.5mm	IP67	Ring, dot, power	Momentary, maintained	50cm leads, PC pins, 2.8×0.5mm	Flat	Form A	32
	CM15	36.6mm, 36.8mm	16mm	18mm	IP65		Momentary, maintained	2.8×0.5mm	Flat, raised	Form C	34
	CMI15	36.6mm, 36.8mm	16mm	18mm	IP65	Ring, dot, power	Momentary, maintained	2.8×0.5mm	Flat, raised	Form C	36
	CM16	36.6mm, 36.8mm	16mm	18mm	IP65		Momentary, maintained	2.8×0.5mm	Flat, raised	Form C	38
	CMI16	36.6mm, 36.8mm	16mm	18mm	IP65	Ring, dot, power	Momentary, maintained	2.8×0.5mm	Flat, raised	Form C	40
	ES06	7.8mm, 10mm	19mm	21.5mm	IP68, eIPOC		Momentary	15cm leads, PC pins	Flat	Form A	42
	ESI11	16.5mm	19mm	21.5mm		Ring	Momentary	15cm leads	Flat	Form A	44
	CM28	12.7mm	19mm	22mm	IP67		Momentary	2.0×0.5mm	Flat	Form A	46
	CMI28	12.7mm	19mm	22mm	IP67	Ring	Momentary	2.0×0.5mm	Flat	Form A	48
	CM19	40mm	19mm	22mm	IP68		Momentary, maintained	Screw, 2.8×0.4mm	Flat	Form A	50
	CMI19	40mm	19mm	22mm	IP68	Ring, dot, power	Momentary, maintained	Screw, 2.8×0.4mm	Flat	Form A	52
	CM20	24mm, 25.3mm	19mm	22mm	IP65		Momentary	Screw, 2.8×0.5mm	Flat, raised, domed	Form A	54
	CMI20	27.3mm, 27.4mm	19mm	22mm	IP65	Ring, dot	Momentary	Screw, 2.8×0.5mm	Flat	Form A	56

	Series	Depth	Mounting Diameter	Outer Diameter	IP Degree	LED	Switch Function	Termination	Button Type	Circuit	
	CM21	24mm, 25.3mm	19mm	22mm	IP65		Momentary	Screw, 2.8×0.5mm	Flat, raised	Form A	58
	CMI21	27.3mm	19mm	22mm	IP65	Ring, dot	Momentary	Screw	Flat	Form A	60
	CM22	17.2mm, 19.1mm	19mm	22mm	IP65		Momentary	Screw, 2.0×0.5mm	Flat, raised, domed	Form A, Form B	62
	CM23	17.2mm, 19.1mm	19mm	22mm	IP65		Momentary	Screw, 2.0×0.5mm	Flat, raised	Form A, Form B	64
	CM25	33.5mm - 41mm	19mm	22mm	IP65, IP67		Momentary, maintained	Screw, 2.8×0.5mm	Flat	Form Z	66
	CMI25	34.5mm - 41mm	19mm	22mm	IP65, IP67	Ring, dot, power	Momentary, maintained	Screw, 2.8×0.5mm	Flat, raised	Form Z	68
	CM26	33.5mm - 41mm	19mm	22mm	IP65, IP67		Momentary, maintained	Screw, 2.8×0.5mm	Flat	Form Z	70
	CMI26	34.5mm - 41mm	19mm	22mm	IP65, IP67	Ring, dot	Momentary, maintained	Screw, 2.8×0.5mm	Flat, raised	Form Z	72
	CM02	32.1mm, 36mm	19mm	22mm	IP65		Momentary	Screw, 2.8×0.8mm	Flat	Form Z	74
	CMI02	32.1mm, 36mm	19mm	22mm	IP65	Ring, dot	Momentary	Screw, 2.8×0.8mm	Flat	Form Z	76
	CM30	36.7mm	19mm	22mm	IP67		Momentary, maintained	2.8×0.5mm	Flat	Form C, 2x Form C	78
	CMI30	38mm	19mm	22mm	IP67	Ring, dot, power	Momentary, maintained	2.8×0.5mm	Flat	Form C, 2x Form C	80
	CM31	36.7mm	19mm	22mm	IP67		Momentary, maintained	2.8×0.5mm	Flat	Form C, 2x Form C	82
	CMI31	38mm	19mm	22mm	IP67	Ring, dot	Momentary, maintained	2.8×0.5mm	Flat	Form C, 2x Form C	84
	CM27	44.9mm, 51.2mm	19mm	22mm	IP65, IP67		Momentary, maintained	4.8×0.5mm	Flat	Form C, 2x Form C	86
	CMI27	44.9mm, 51.2mm	19mm	22mm	IP65, IP67	Ring, dot	Momentary, maintained	4.8×0.5mm, 2.8×0.5mm	Flat	Form C	88
	CM32	13.2mm	22mm	25mm	IP67		Momentary	2.0×0.5mm	Flat	Form A	90
	CMI32	13.2mm	22mm	25mm	IP67	Ring	Momentary	2.0×0.5mm	Flat	Form A	92
	CM58	23,5mm	22mm	25mm	IP67		Momentary, maintained	50cm leads	Flat	Form A	94
	CMI58	23,5mm	22mm	25mm	IP67	Ring, power	Momentary, maintained	50cm leads	Flat	Form A	96
	CM35	34.8mm - 41mm	22mm	25mm	IP65, IP67		Momentary, maintained	Screw, 2.8×0.5mm	Flat	Form Z	98
	CMI35	34.8mm - 41mm	22mm	25mm	IP65, IP67	Ring, dot, power	Momentary, maintained	Screw, 2.8×0.5mm	Flat	Form Z	100
	CM36	35.3mm, 40.3mm	22mm	25mm	IP65, IP67		Momentary, maintained	2.8×0.5mm	Flat	Form Z	102
	CMI36	35.3mm, 40.3mm	22mm	25mm	IP65, IP67	Ring, dot	Momentary, maintained	2.8×0.5mm	Flat	Form Z	104

Product Overview

Mechanical Switches

	Series	Depth	Mounting Diameter	Outer Diameter	IP Degree	LED	Switch Function	Termination	Button Type	Circuit	
	CM37	25.3mm	22mm	25mm	IP65		Momentary	2.8×0.5mm	Flat	Form A	106
	CM42	12.5mm	25mm	28mm	IP67		Momentary	2.0×0.5mm	Flat	Form A	108
	CMI42	12.5mm	25mm	28mm	IP67	Ring	Momentary	2.0×0.5mm	Flat	Form A	110
	CM40	34.8mm - 41mm	25mm	28mm	IP65, IP67		Momentary, maintained	Screw, 2.8×0.5mm	Flat	Form Z, 2x Form Z	112
	CMI40	34.8mm - 41mm	25mm	28mm	IP65, IP67	Ring, dot, power	Momentary, maintained	Screw, 2.8×0.5mm	Flat	Form Z, 2x Form Z	114
	CM41	38.5mm, 40.8mm	25mm	28mm	IP65, IP67		Momentary, maintained	2.8×0.5mm	Flat	Form Z, 2x Form Z	116
	CMI41	38.5mm, 40.8mm	25mm	28mm	IP65, IP67	Ring, dot	Momentary, maintained	2.8×0.5mm	Flat	Form Z, 2x Form Z	118
	CM45	35mm, 38.4mm	28mm	32mm	IP65, IP67		Momentary, maintained	2.8×0.5mm	Flat	Form Z, 2x Form Z	120
	CMI45	35mm - 40.9mm	28mm	32mm	IP65, IP67	Ring, dot	Momentary, maintained	2.8×0.5mm	Flat	Form Z, 2x Form Z	122
	CM46	38.4mm, 40.8mm	28mm	32mm	IP65, IP67		Momentary, maintained	2.8×0.5mm	Flat	Form Z, 2x Form Z	124
	CMI46	38.4mm, 40.8mm	28mm	32mm	IP65, IP67	Ring, dot	Momentary, maintained	2.8×0.5mm	Flat	Form Z, 2x Form Z	126
	CM50	35mm - 40.9mm	30mm	35mm	IP65, IP67		Momentary, maintained	Screw, 2.8×0.5mm	Flat	Form Z, 2x Form Z	128
	CMI50	35mm - 40.9mm	30mm	35mm	IP65, IP67	Ring, dot	Momentary, maintained	Screw, 2.8×0.5mm	Flat	Form Z, 2x Form Z	130
	CM51	38.4mm, 40.8mm	30mm	35mm	IP65, IP67		Momentary, maintained	2.8×0.5mm	Flat	Form Z, 2x Form Z	132
	CMI51	38.4mm, 40.8mm	30mm	35mm	IP65, IP67	Ring, dot	Momentary, maintained	2.8×0.5mm	Flat	Form Z, 2x Form Z	134
	CM60	41.1mm	40mm	46mm	IP65		Momentary, maintained	2.8×0.5mm	Flat	Form Z, 2x Form Z	136
	CMI60	41.1mm	40mm	46mm	IP65	Ring	Momentary, maintained	2.8×0.5mm	Flat	Form Z, 2x Form Z	138

Plastic Switches

	Series	Depth	Mounting Diameter	Outer Diameter	IP Degree	LED	Switch Function	Termination	Button Type	Circuit	
	CM7X	17.6mm	12mm	17.5mm	IP67		Momentary, maintained	see datasheet	Domed, Flat, Raised		140
	CMI7X	17.6mm	12mm	17.5mm	IP67	Dot	Momentary, maintained	see datasheet	Flat		142
	CMI92	18.5mm	16mm	19.8mm	IP67		Momentary	15cm leads	Flat	Form A, Form B	144

	Series	Depth	Mounting Diameter	Outer Diameter	IP Degree	LED	Switch Function	Termination	Button Type	Circuit	
	CM90	37.3mm	22mm	25mm	IP65		Momentary, maintained	2.8×0.5mm	Flat	Form C, 2x Form C	146
	CMI90	38.5mm	22mm	25mm	IP65	Power, surface	Momentary, maintained	2.8×0.5mm	Flat	Form C, 2x Form C	148

Non-moving Switches

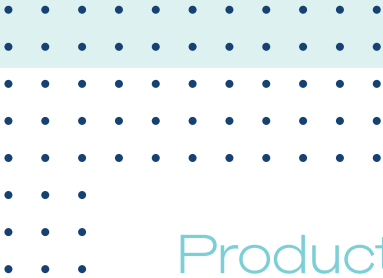
	Series	Depth	Mounting Diameter	Outer Diameter	IP Degree	LED	Switch Function	Termination	Button Type	Circuit	
	EP03	10mm	16mm	20mm	IP68, IP69K		Momentary	15cm leads	Guided	Form A	150
	EPI03	10mm	16mm	20mm	IP68	Dot	Momentary	15cm leads	Guided	Form A	152
	NK03	10mm	16mm	20mm	IP68, IP69K		Momentary, maintained	15cm leads	Guided	NMOS	154
	EP06	10mm	19mm	21.5mm	IP68, IP69K		Momentary	15cm leads	Flat	Form A	156
	NK02	10mm	19mm	21.5mm	IP68, IP69K		Momentary, toggle	15cm leads	Flat	NMOS	158
	EP70	9mm	20mm	20mm	IP68, IP69K		Momentary	15cm leads	Flat	Form A	160
	EP15	17.8mm, 19.7mm	22mm	25mm, 26mm	IP68, IP69K		Momentary	15cm leads	Flat, guided	Form A	162
	NK15	17.8mm, 19.7mm	22mm	26mm, 28mm	IP68, IP69K		Momentary, toggle	15cm leads	Flat, guided	NMOS	164
	EPI16	10.5mm, 14mm	22mm	26mm, 28mm	IP68	Ring	Momentary	15cm leads	Flat, raised	Form A	166
	NKI16	10.5mm, 14mm	22mm	26mm	IP68	Ring	Momentary, toggle	15cm leads	Flat, raised	NMOS	168
	EPI50	17.5mm	30mm	33.5mm	IP68	Ring, dot	Momentary	20cm leads	Flat	Form A	170
	NKI50	17.5mm	30mm	33.5mm	IP68	Ring, dot	Momentary, toggle	20cm leads	Flat	NMOS	172

Capacitive Switches

	Series	Depth	Mounting Diameter	Outer Diameter	IP Degree	LED	Switch Function	Termination	Button Type	Circuit	
	CKI21	32mm	19mm	22mm	IP68, IP69K	Ring	Momentary, maintained	30cm leads	Flat, guided	PMOS	174
	CKI35	32mm	22mm	25mm	IP68, IP69K	Ring	Momentary, maintained	30cm leads	Flat	PMOS	176
	CKI36	32mm	22mm	25mm	IP68, IP69K	Ring	Momentary, maintained	30cm leads	Flat, guided	PMOS	178

Keypads

	Series	Depth	Mounting Diameter	Outer Diameter	IP Degree	LED	Switch Function	Termination	Button Type	Circuit	
	EPK10	4.5mm, 6.3mm	3×4	73×93mm, 78×97mm	(IP68)		Momentary	Pin header, cable			180
	EPK15	4.5mm, 6.3mm	4×4	97×97mm	(IP68)		Momentary	Pin header, cable			182



Product Overview

Indicators

	Series	Depth	Mounting Diameter	Outer Diameter	IP Degree	LED	Switch Function	Termination	Button Type	Circuit
	CI04	26mm	8mm	11mm	IP67	Dot		1.8×0.4mm	Flat	184
	CI05	39mm	8mm	9.5mm	IP67	Dot		2.8×0.5mm	Flat	186
	CI08	27.4mm	12mm	15mm	IP67	Dot		1.8×0.4mm	Flat	188

Accessories

	Series	Depth	Mounting Diameter	Outer Diameter	IP Degree	LED	Switch Function	Termination	Button Type	Circuit
	MPI-VSG	14.5mm						Spring loaded		190
	AC									192



CM12 12mm Vandalproof Pushbutton



12mm



13.8mm



12.3mm

IP67

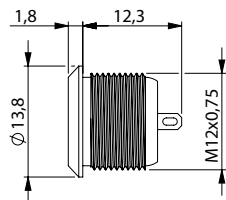
Specification

Termination	2.0×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	50mA, 24VDC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	5-14Nm
Panel thickness	1.0mm to 3.0mm
Body & button material	See ordering information
Contact material	Gold plated brass

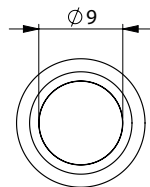
Product Dimensions

All dimensions in mm

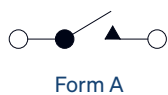
Flat



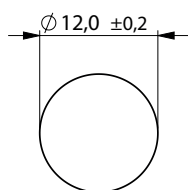
Front View (all versions)



Circuit Diagram



Mounting Dimensions



Ordering Information



Material

V2: Stainless steel¹

AS: Black aluminium

CM12 / / F / M / S / 20

¹ 1.4301



CM112 12mm Vandalproof Pushbutton

 12mm

 13.8mm

 12.3mm

IP67

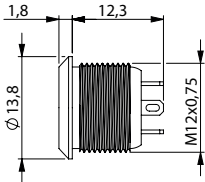
Specification

Termination	2.0×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	50mA, 24VDC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	5-14Nm
Panel thickness	1.0mm to 3.0mm
Body & button material	See ordering information
Contact material	Gold plated brass

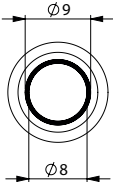
Product Dimensions

All dimensions in mm

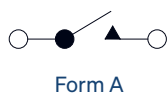
Flat



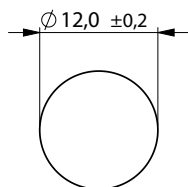
Front View (all versions)



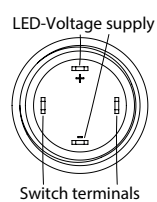
Circuit Diagram



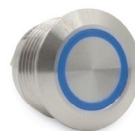
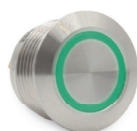
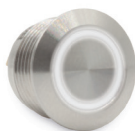
Mounting Dimensions



Wiring Instructions



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White

LED Voltage

00: No resistor²
06: 6 volt
12: 12 volt
24: 24 volt

CM12 / / F / R / / / M / S / 20

¹ 1.4301

² Red, yellow: 1.8V | Green, blue, white: 2.8V (20mA)



CMO8 12mm Vandalproof Pushbutton

12mm

14mm

18mm

IP67

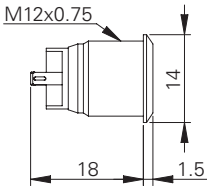
Specification

Termination	2.0x0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	2A, 36VDC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Duty cycle	200,000 (min)
Operating force	1.5N
Nut mounting torque	~ 0.3Nm
Panel thickness	1.0mm to 7.0mm
Body & button material	See ordering information
Contact material	Silver plated brass

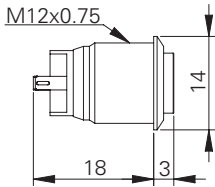
Product Dimensions

All dimensions in mm

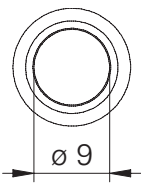
Flat

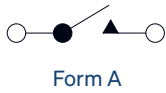
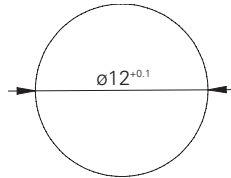


Raised



Front View (all versions)



Circuit Diagram**Mounting Dimensions****Ordering Information****Material**

V2: Stainless steel¹
AS: Black aluminium

Button

F: Flat
R: Raised

CM08 / / / M / S / 20

¹ 14301



CMIO8 12mm Vandalproof Pushbutton

12mm

14mm

19.1mm

IP67

LED

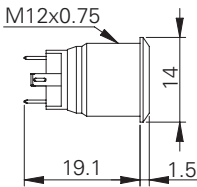
Specification

Termination	2.0×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	2A, 36VDC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Duty cycle	200,000 (min)
Operating force	1.5N
Nut mounting torque	~ 0.3Nm
Panel thickness	1.0mm to 7.0mm
Body & button material	See ordering information
Contact material	Silver plated brass

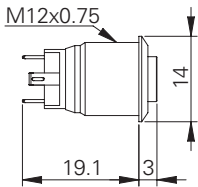
Product Dimensions

All dimensions in mm

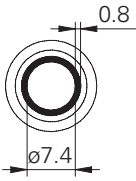
Flat



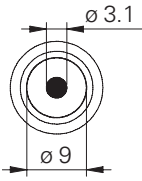
Raised



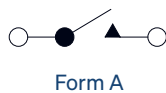
Front View (ring)



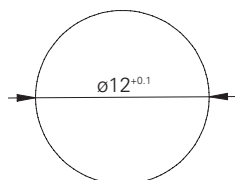
Front View (dot)



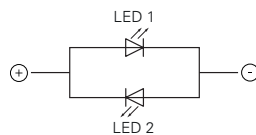
Circuit Diagram



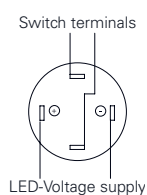
Mounting Dimensions



LED Circuit Diagram



Wiring Instructions



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

Button

F: Flat
R: Raised

LED

R: Ring
D: Dot
P: Power²

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
OR: Orange
GR: Green/red³
BR: Blue/red³
GB: Green/blue³

LED Voltage¹

00: No resistor⁴
06: 6 volt
12: 12 volt
24: 24 volt

CM108 / / / / / / M / S / 20

¹ 14301

² Only available with flat button

³ 2 pins, colour change by swapping polarity

⁴ Red, yellow, orange: 1.8V | Green, blue, white: 2.8V (15mA)



CM18 16mm Vandalproof Pushbutton

 16mm

 18mm

 13.7mm

IP67

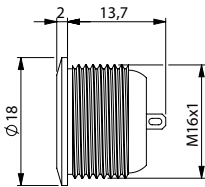
Specification

Termination	2.0×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	50mA, 24VDC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	5-14Nm
Panel thickness	1.0mm to 3.0mm
Body & button material	See ordering information
Contact material	Gold plated brass

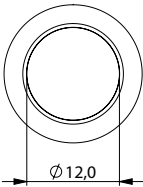
Product Dimensions

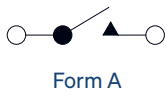
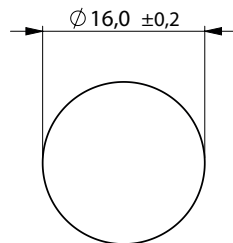
All dimensions in mm

Flat



Front View (all versions)



Circuit Diagram**Mounting Dimensions****Ordering Information****Material**

V2: Stainless steel¹

AS: Black aluminium

CM18 / / F / M / S / 20

¹ 1.4301



CM118 16mm Vandalproof Pushbutton

 16mm

 18mm

 13.7mm

IP67

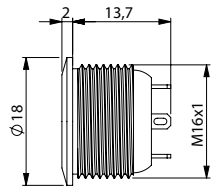
Specification

Termination	2.0×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	50mA, 24VDC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	5-14Nm
Panel thickness	1.0mm to 3.0mm
Body & button material	See ordering information
Contact material	Gold plated brass

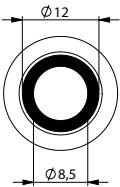
Product Dimensions

All dimensions in mm

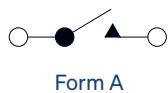
Flat



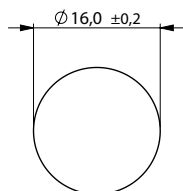
Front View (all versions)



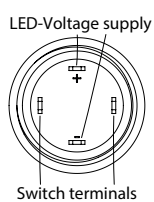
Circuit Diagram



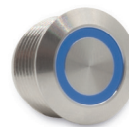
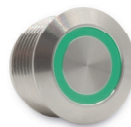
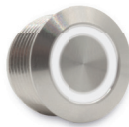
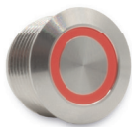
Mounting Dimensions



Wiring Instructions



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White

LED Voltage

00: No resistor²
06: 6 volt
12: 12 volt
24: 24 volt

CM18 / / F / R / / / M / S / 20

¹ 1.4301

² Red, yellow: 1.8V | Green, blue, white: 2.8V (20mA)

CM10 16mm Vandalproof Pushbutton



16mm



18mm



17.5mm

IP65



20.1mm

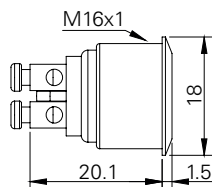
Specification

Termination	Screw or 2.0×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	2A, 36VDC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 6.0mm
Body & button material	See ordering information
Contact material	Silver plated brass

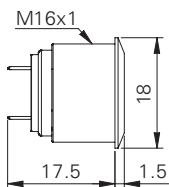
Product Dimensions

All dimensions in mm

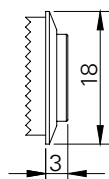
Screw Terminals Flat



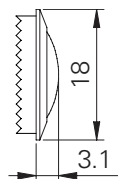
2.0mm Terminals Flat



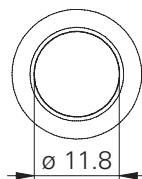
Raised



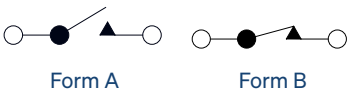
Domed



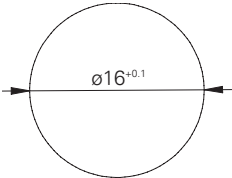
Front View (all versions)



Circuit Diagram



Mounting Dimensions



Ordering Information



Material

- V2: Stainless steel¹
- AB: Blue aluminium
- AG: Green aluminium
- AN: Natural aluminium
- AR: Red aluminium
- AS: Black aluminium
- AY: Yellow aluminium
- BN: Nickel plated brass
- BG: Messing gold

Button

- F: Flat
- R: Raised
- D: Domed

Switch Function

- M: Momentary NO
- N: Momentary NC

Terminations

- 20: 2.0mm solder tabs
- ST: Screws



¹ 14301



CM110 16mm Vandalproof Pushbutton

 16mm

 18mm

 22.25mm

 IP65

 LED



 20mm

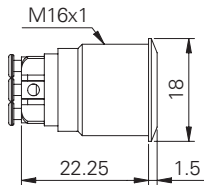
Specification

Termination	Screw or 2.0×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	2A, 36VDC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 6.0mm
Body & button material	See ordering information
Contact material	Silver plated brass

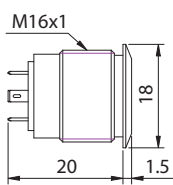
Product Dimensions

All dimensions in mm

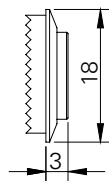
Screw Terminals Flat



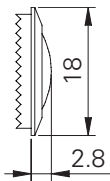
2.0mm Terminals Flat



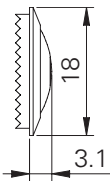
Raised



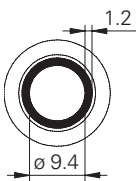
Domed (ring)



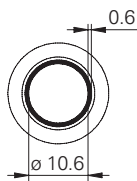
Domed (dot)



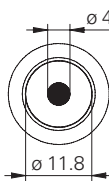
Front View (ring, flat or raised)



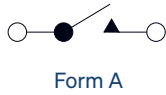
Front View (ring, domed)



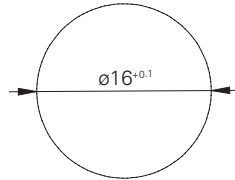
Front View (dot)



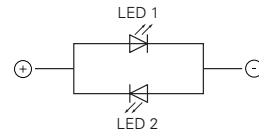
Circuit Diagram



Mounting Dimensions

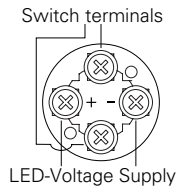


LED Circuit Diagram

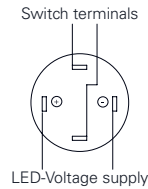


Wiring Instructions

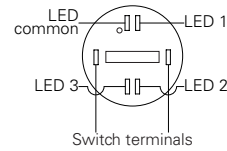
Screw terminals | 2 LED pins



Solder terminals | 2 LED pins



3&4 LED pins^{1,4}



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

Button

F: Flat
R: Raised
D: Domed

LED

R: Ring
D: Dot
S: Powering^{2,3}
X: Custom^{2,3,4}

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
GR: Green/red⁵
BR: Blue/red⁵
GB: Green/blue⁵
01: Green/red^{3,6}
02: Green/blue^{3,6}
03: Green/red^{3,6}
11: RGB^{3,7}

LED Voltage

00: No resistor⁸
06: 6 volt
12: 12 volt
24: 24 volt

Switch Function

M: Momentary

Terminations

20: 2.0mm solder tabs
ST: Screws

CM110 / / / / / / / S /

¹ 14301

² Only available with flat button

³ Only available with solder terminals

⁴ IP65 (EN60529)

⁵ 2 pins, colour change by swapping polarity

⁶ 3 pins for LED connection (one per colour and common cathode (common anode available on request))

⁷ Red/green/blue, 4 pins for LED connection (one per colour and common cathode (common anode available on request))

⁸ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)



CM11 16mm Vandalproof Pushbutton

 16mm

 18mm

 20.1mm

IP65

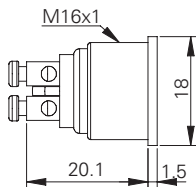
Specification

Termination	Screw or 2.0×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	2A, 36VDC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 6.0mm
Body & button material	See ordering information
Contact material	Silver plated brass

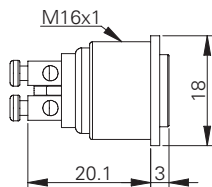
Product Dimensions

All dimensions in mm

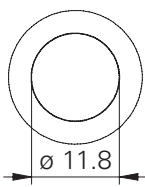
Flat Screw



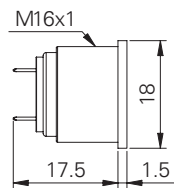
Raised Screw



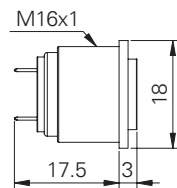
Front View (all versions)



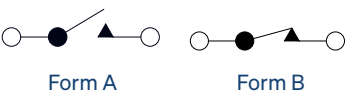
Flat 2.0mm



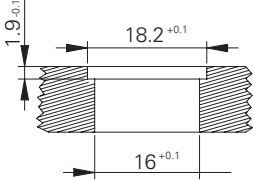
Raised 2.0mm



Circuit Diagram



Mounting Dimensions



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium
BN: Nickel plated brass
GB: Gold plated brass

Button

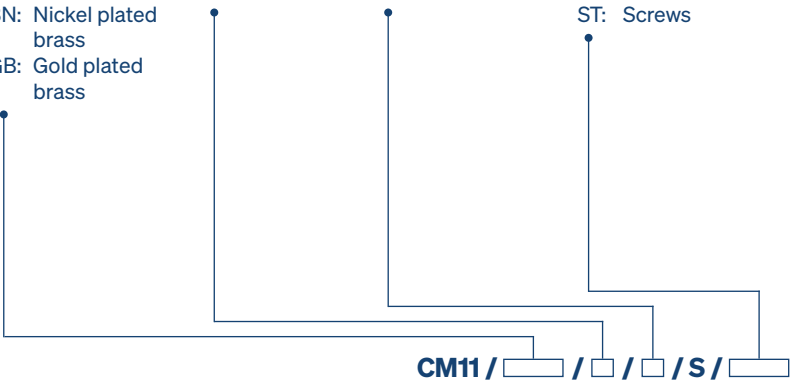
F: Flat
R: Raised

Switch Function

M: Momentary NO
N: Momentary NC

Termination

20: 2.0mm solder tabs
ST: Screws



¹ 1.4301



CMI11 16mm Vandalproof Pushbutton

16mm

18mm

20mm

IP65

LED

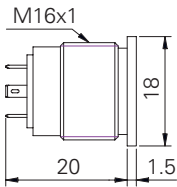
Specification

Termination	2.0×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	2A, 36VDC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 6.0mm
Body & button material	See ordering information
Contact material	Silver plated brass

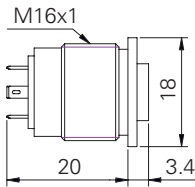
Product Dimensions

All dimensions in mm

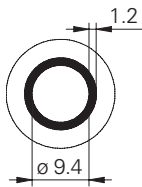
Flat



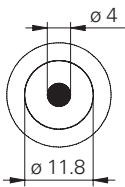
Raised



Front View (ring)



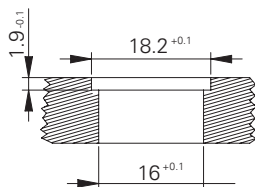
Front View (dot)



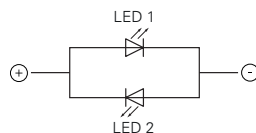
Circuit Diagram



Mounting Dimensions

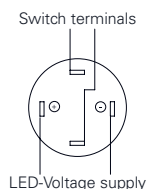


LED Circuit Diagram

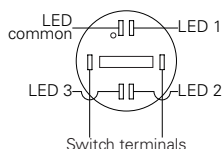


Wiring Instructions

2 LED pins



3 & 4 LED pins^{1,2}



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium
BN: Nickel plated brass

Button

F: Flat
R: Raised

LED

R: Ring
D: Dot
X: Custom²

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
GR: Green/red³
BR: Blue/red³
GB: Green/blue³
01: Green/red⁴
02: Green/blue⁴
03: Blue/red⁴
11: RGB⁵

LED Voltage

00: No resistor⁶
06: 6 volt
12: 12 volt
24: 24 volt

Switch Function

M: Momentary

CMI11 / / / / S / 20

¹ 1.4301

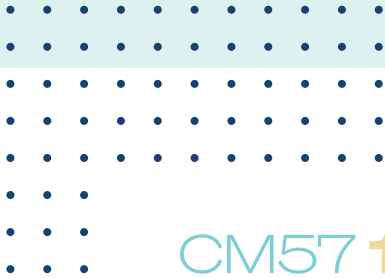
² IP65 (EN60529)

³ 2 pins, colour change by swapping polarity

⁴ 3 pins for LED connection (one per colour and common cathode (common anode available on request))

⁵ Red/green/blue, 4 pins for LED connection (one per colour and common cathode (common anode available on request))

⁶ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)



CM57 16mm Vandalproof Pushbutton

 16mm	 18.5mm	 19.7mm	 25.6mm	IP67
		 19.8mm		

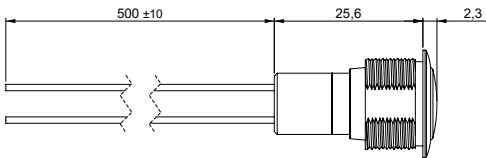
Specification

Termination	50cm flying leads, PC pins or 2.0×0.5mm solder terminals
Switching function	Momentary or maintained
Configuration of poles	Single
Maximum load	250mA, 48VDC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-40°C to +85°C
Ingress protection	IP67
Duty cycle	50,000 (min)
Operating force	3N
Nut mounting torque	~ 1.0Nm
Panel thickness	0.5mm to 6.0mm
Body & button material	See ordering information
Contact material	Gold

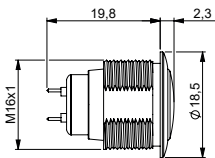
Product Dimensions

All dimensions in mm

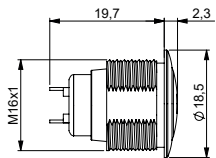
Flying Leads



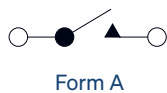
2.8mm Terminals



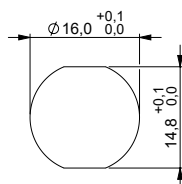
PC pins



Circuit Diagram



Mounting Dimensions



Ordering Information

Material

V2: Stainless steel¹
 ZA: Zinc Alloy, Velour Chrome Plated
 ZK: Zinc Alloy, Black

Switch Function

M: Momentary
 L: Maintained

Terminations

20: 2.0mm solder tabs
 L4: 50cm leads
 PC: PC pins

CM57 / / D / / S /

¹ 14301



CMI57 16mm Vandalproof Pushbutton

 16mm

 18.5mm

 21mm

 IP67

 25.6mm

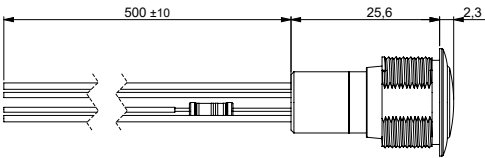
Specification

Termination	50cm flying leads, PC pins or 2.0×0.5mm solder terminals
Switching function	Momentary or maintained
Configuration of poles	Single
Maximum load	250mA, 48VDC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +85°C
Ingress protection	IP67
Duty cycle	50,000 (min)
Operating force	3N
Nut mounting torque	~ 1.0Nm
Panel thickness	0.5mm to 6.0mm
Body & button material	See ordering information
Contact material	Gold

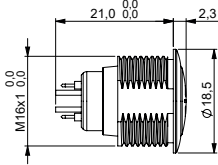
Product Dimensions

All dimensions in mm

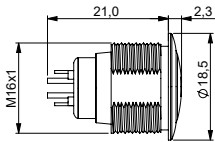
Flying Leads



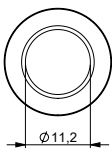
2.8mm Terminals



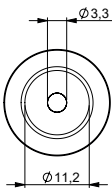
PC pins



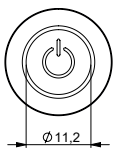
Front View (ring)



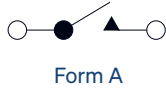
Front View (dot)



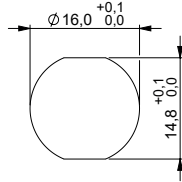
Front View (power)



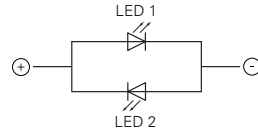
Circuit Diagram



Mounting Dimensions

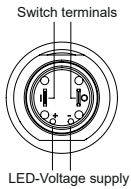


LED Circuit Diagram

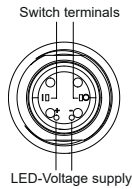


Wiring Instructions

Solder terminals | 2 LED pins



PC terminals | 2 LED pins



Ordering Information



Material

V2: Stainless steel¹
ZA: Zinc Alloy,
Velour Chrome
Plated
ZK: Zinc Alloy, Black

LED

R: Ring
D: Dot
S: Powerring

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White²
OR: Orange
63: Blue/red
60: Green/red

LED Voltage

00: No resistor³
05: 5 volt
12: 12 volt
24: 24 volt

Switch Function

M: Momentary
L: Maintained

Terminations

20: 2.0mm solder
tabs
L4: 50cm leads
PC: PC pins

CMI57 / [Material] / [LED] / [LED Colour] / [LED Voltage] / [Switch Function] / [Terminations]

¹ 14301

² Only with 5V resistor

³ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)



CM15 16mm Vandalproof Pushbutton

 16mm

 18mm

 36.6mm

IP65

 36.8mm



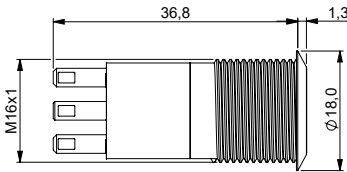
Specification

Termination	2.8×0.5mm solder terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	1.5 ~ 2N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 8.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

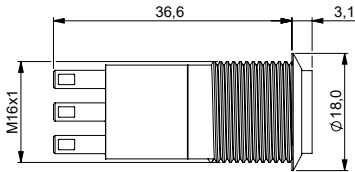
Product Dimensions

All dimensions in mm

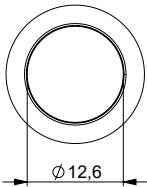
Flat



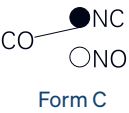
Raised



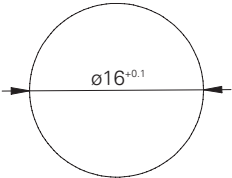
Front View (all versions)



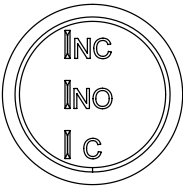
Circuit Diagram



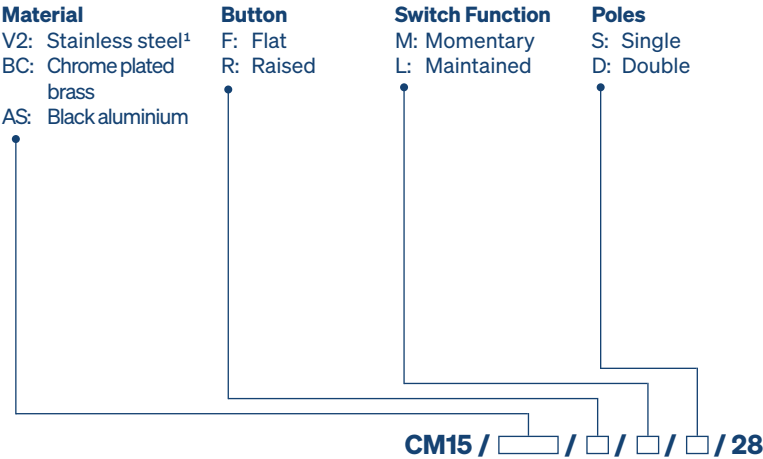
Mounting Dimensions



Contact Arrangement



Ordering Information



¹ 14301



CM115 16mm Vandalproof Pushbutton

 16mm

 18mm

 36.6mm

 IP65

 LED



 36.8mm

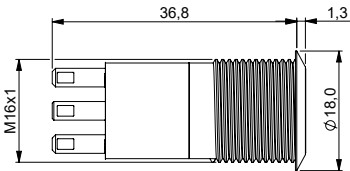
Specification

Termination	2.8×0.5mm solder terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	3A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	1.5 ~ 2N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 8.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

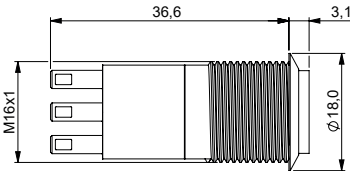
Product Dimensions

All dimensions in mm

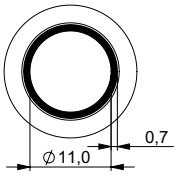
Flat



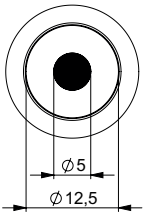
Raised



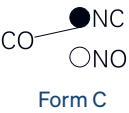
Front View (ring)



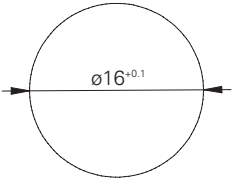
Front View (dot)



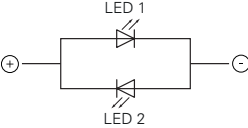
Circuit Diagram



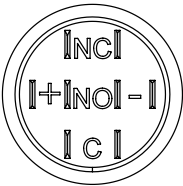
Mounting Dimensions



LED Circuit Diagram



Contact Arrangement



Ordering Information

Material	Button	LED	LED Colour	LED Voltage	Switch Function	Poles
V2: Stainless steel ¹ BC: Chrome plated brass AS: Black aluminium	F: Flat R: Raised	R: Ring D: Dot S: Powering ² X: Custom ^{2,3}	GN: Green RD: Red YL: Yellow BL: Blue WH: White	06: 6 volt 12: 12 volt 24: 24 volt	M: Momentary L: Maintained	S: Single D: Double
CM15 / / / / / / / 28						

¹ 14301
² Only available with flat button
³ IP65 (EN60529)



CM16 16mm Vandalproof Pushbutton

 16mm

 18mm

 36.6mm

IP65

 36.8mm



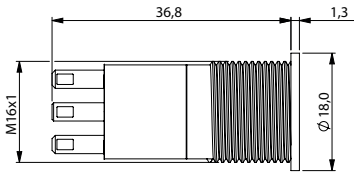
Specification

Termination	2.8×0.5mm solder terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	1.5 ~ 2N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 8.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

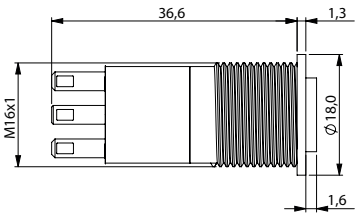
Product Dimensions

All dimensions in mm

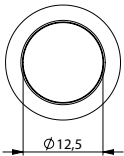
Flat



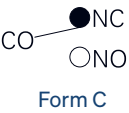
Raised



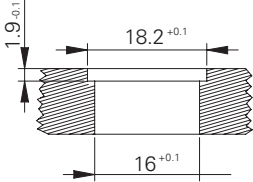
Front View (all versions)



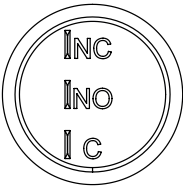
Circuit Diagram



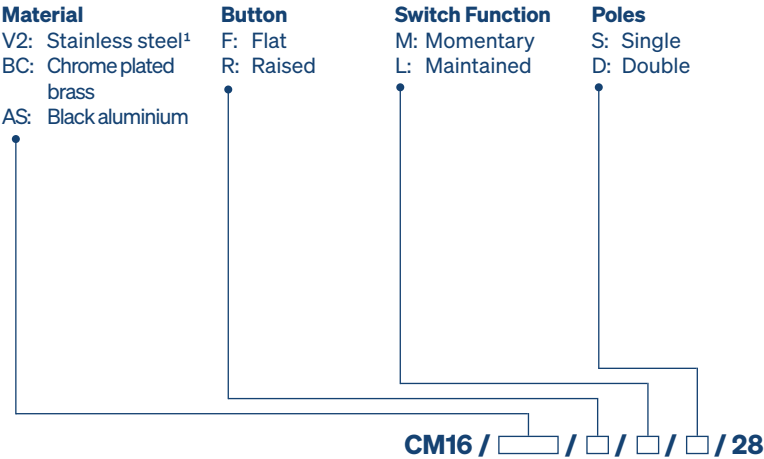
Mounting Dimensions



Contact Arrangement



Ordering Information



¹ 14301



CM116 16mm Vandalproof Pushbutton

 16mm

 18mm

 36.6mm

 IP65

 LED



 36.8mm

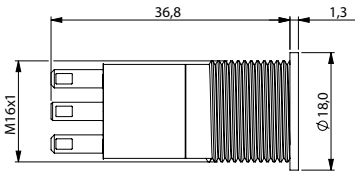
Specification

Termination	2.8×0.5mm solder terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	1.5 ~ 2N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 8.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

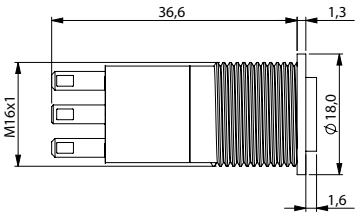
Product Dimensions

All dimensions in mm

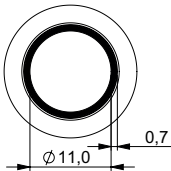
Flat



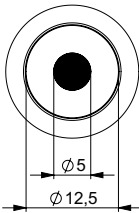
Raised



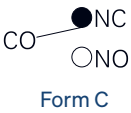
Front View (ring)



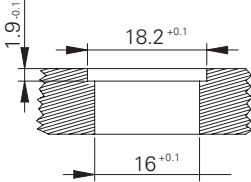
Front View (dot)



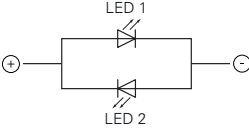
Circuit Diagram



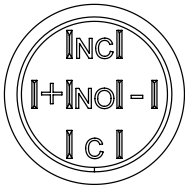
Mounting Dimensions



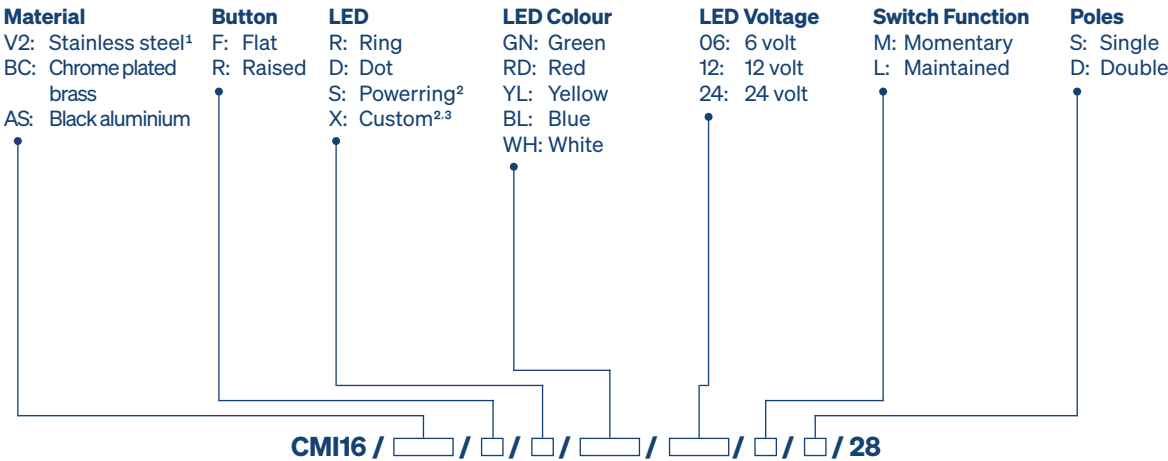
LED Circuit Diagram



Contact Arrangement



Ordering Information



¹ 14301
² IP65 (EN60529)
³ 2 pins, colour change by swapping polarity



ESO6 19mm Vandalproof Pushbutton

 19mm	 21.5mm	 7.8mm	IP68	
		 10mm	eIPOC	

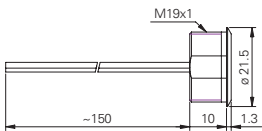
Specification

Termination	15cm flying leads or PC pins
Switching function	Momentary
Configuration of poles	Single
Maximum load	100mA, 42VDC
LED voltage	-
Contact resistance	100mΩ
Insulation resistance	> 10 ⁹ Ω
Operating temperature	-40°C to +85°C
Ingress protection	IP68 (EN 60529), eIPOC
Duty cycle	1,000,000 (min)
Operating force	3.3 ^{+0.6} N
Nut mounting torque	~ 2.5Nm
Panel thickness	1.0mm to 7.0mm
Body & button material	See ordering information
Contact material	Gold

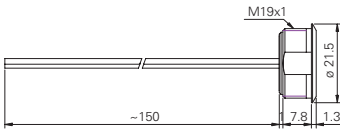
Product Dimensions

All dimensions in mm

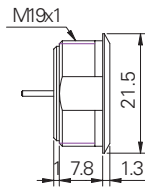
Flying Leads



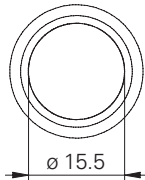
Flying Leads (aluminium)



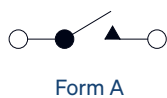
PC pins



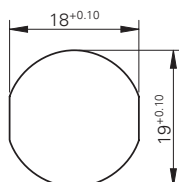
Front View



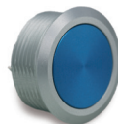
Circuit Diagram



Mounting Dimensions



Ordering Information



Material

V2: Stainless steel¹
 MS: Chromed brass
 AN: Natural anodised aluminium
 A1: Red anodised aluminium²
 A2: Blue anodised aluminium²
 A3: Yellow anodised aluminium²
 A4: Green anodised aluminium²

Terminals

L1: 15cm leads
 PC: PC pins

ES06 F00MM

¹ 1.4301

² Code is only for button material, housing is made of natural anodised aluminium



ESI11 19mm Vandalproof Pushbutton

19mm

21,5mm

16.5mm

LED

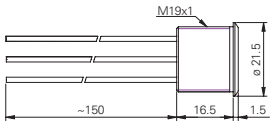
Specification

Termination	15cm flying leads
Switching function	Momentary
Configuration of poles	Single
Maximum load	50mA, 24VDC
LED voltage	See ordering information
Contact resistance	100mΩ
Insulation resistance	> 100MΩ
Operating temperature	-20°C to +70°C
Ingress protection	-
Duty cycle	50,000 (min)
Operating force	1.8N
Nut mounting torque	~ 2.5Nm
Panel thickness	1.5mm to 13.0mm
Body & button material	See ordering information
Contact material	Gold

Product Dimensions

All dimensions in mm

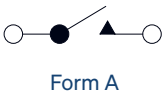
Flying Leads



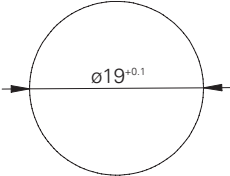
Front View



Circuit Diagram



Mounting Dimensions



Wiring Instructions

-  Switch wire
-  Switch wire
-  Ground wire for LED
-  LED colour wire for +LED

Ordering Information



Material

- V2: Stainless steel¹
- AS: Black aluminium
- AN: Natural aluminium
- PK: Black plastic
- PW: White plastic

LED Colour

- GN: Green
- RD: Red
- BL: Blue
- YL: Yellow
- WH: White
- GB: Green/blue

LED Voltage

- 00: No resistor²
- 05: 5 volt
- 12: 12 volt
- 24: 24 volt

ES11 / / F / R / / / M / S / L1

¹ 14301
² Green, blue, white: 3.2VDC | Red, orange: 2.5VDC (20mA)



CM28 19mm Vandalproof Pushbutton

 19mm

 22mm

 12.7mm

IP67

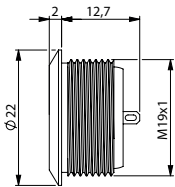
Specification

Termination	2.0×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	50mA, 24VDC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	5-14Nm
Panel thickness	1.0mm to 3.0mm
Body & button material	See ordering information
Contact material	Gold plated brass

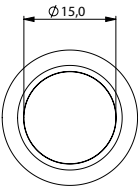
Product Dimensions

All dimensions in mm

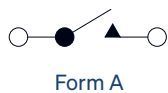
Flat



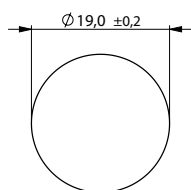
Front View (all versions)



Circuit Diagram



Mounting Dimensions



Ordering Information



Material

V2: Stainless steel¹

AS: Black aluminium

CM28 / / F / M / S / 20

¹ 1.4301



CMI28 19mm Vandalproof Pushbutton

19mm

22mm

12.7mm

IP67

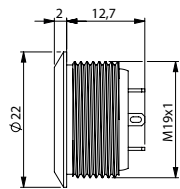
Specification

Termination	2.0×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	50mA, 24VDC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Impact resistance	IK09
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	5-14Nm
Panel thickness	1.0mm to 3.0mm
Body & button material	See ordering information
Contact material	Gold plated brass

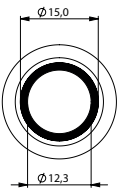
Product Dimensions

All dimensions in mm

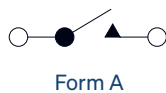
Flat



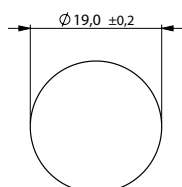
Front View (all versions)



Circuit Diagram

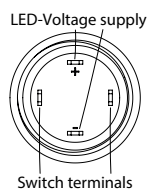


Mounting Dimensions

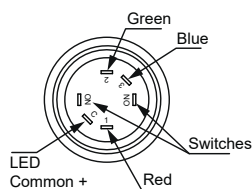


Wiring Instructions

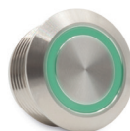
GN, RD, YL, BL & WH



RGB



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
10: RGB

LED Voltage

00: No resistor²
06: 6 volt
12: 12 volt
24: 24 volt

CMI28 / / F / R / / / M / S / 20

¹ 1.4301

² Red, yellow: 1.8V | Green, blue, white: 2.8V (20mA)



CM19 19mm Vandalproof Pushbutton

 19mm

 22mm

 40mm

IP68

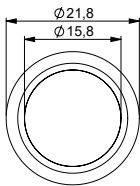
Specification

Termination	2.8×0.4mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	6A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	0°C to +55°C
Ingress protection	IP68
Duty cycle	50.000 (min)
Operating force	4N
Nut mounting torque	~ 1.2Nm
Body & button material	See ordering information
Contact material	Silver alloy

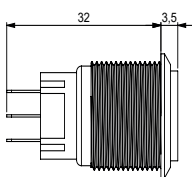
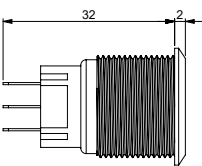
Product Dimensions

All dimensions in mm

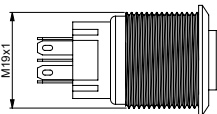
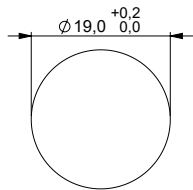
Front View



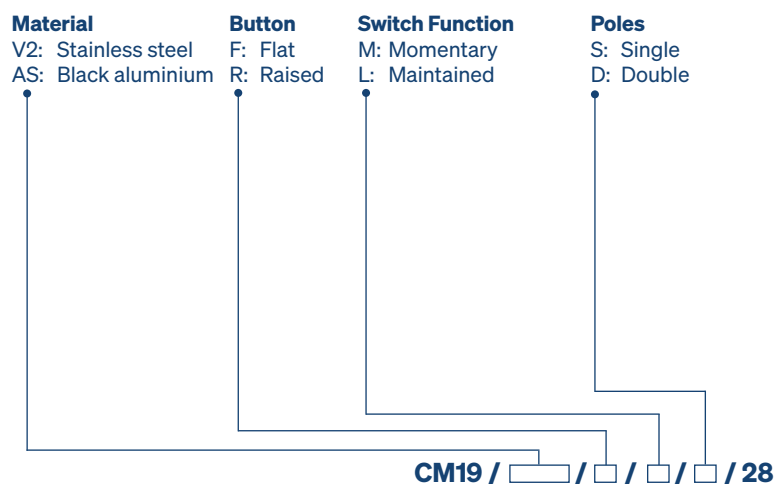
Side View



Mounting Dimensions



Ordering Information





CM119 19mm Vandalproof Pushbutton

19mm

22mm

40mm

IP68

LED

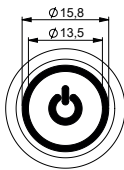
Specification

Termination	2.8×0.4mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	6A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	0°C to +55°C
Ingress protection	IP68
Duty cycle	50.000 (min)
Operating force	4N
Nut mounting torque	~ 1.2Nm
Body & button material	See ordering information
Contact material	Silver alloy

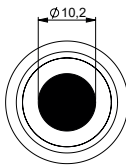
Product Dimensions

All dimensions in mm

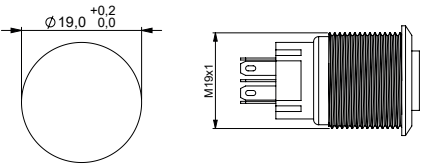
Front View (power)



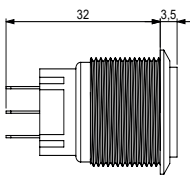
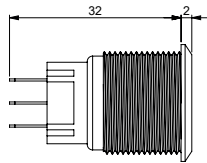
Front View (dot)



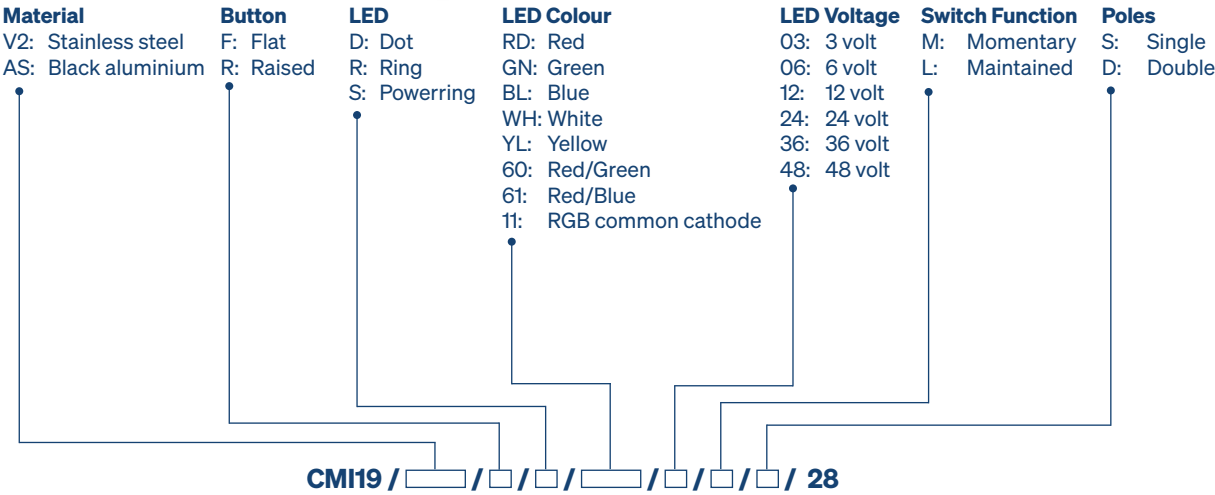
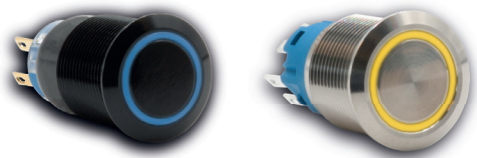
Mounting Dimensions



Side View



Ordering Information





CM20 19mm Vandalproof Pushbutton

 19mm

 22mm

 24mm

IP65

 25.3mm

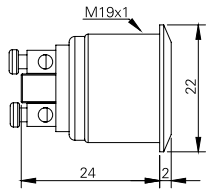
Specification

Termination	Screw or 2.8×0.5mm fast connect terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	2A, 36VDC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Silver plated brass

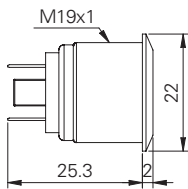
Product Dimensions

All dimensions in mm

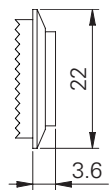
Screw Terminals Flat



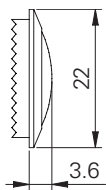
2.8mm Terminals Flat



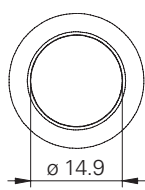
Raised



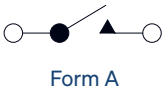
Domed



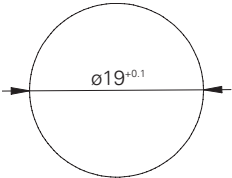
Front View (all versions)



Circuit Diagram



Mounting Dimensions



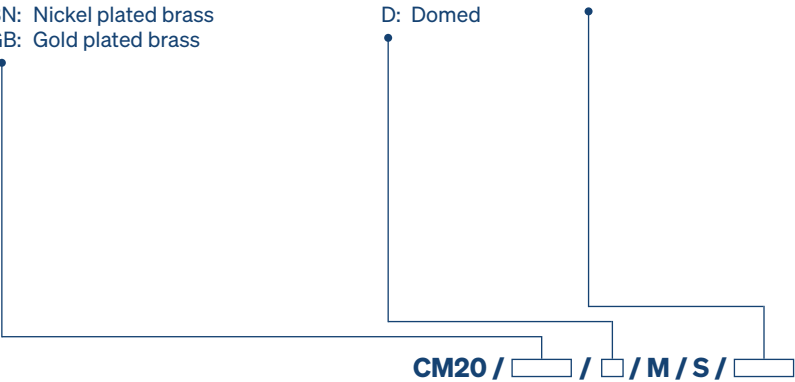
Ordering Information



Material
V2: Stainless steel¹
AS: Black aluminium
BN: Nickel plated brass
GB: Gold plated brass

Button
F: Flat
R: Raised
D: Domed

Terminations
28: 2.8mm solder
ST: Screws



¹ 14301



CMI20 19mm Vandalproof Pushbutton

19mm

22mm

27.3mm

IP65

LED

27.4mm

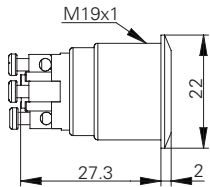
Specification

Termination	Screw or 2.8mm terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	2A, 36VDC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Silver plated brass

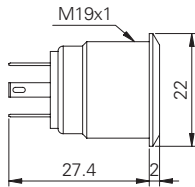
Product Dimensions

All dimensions in mm

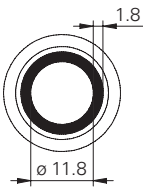
Solder Terminals Flat



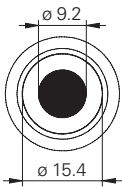
2.8mm Terminals Flat



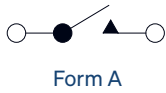
Front View (ring)



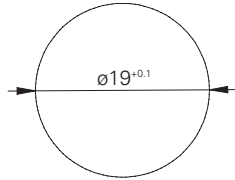
Front View (dot)



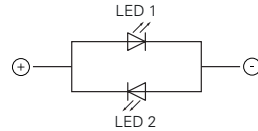
Circuit Diagram



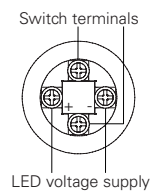
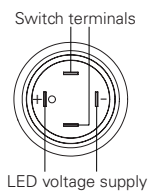
Mounting Dimensions



LED Circuit Diagram



Wiring Instructions



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

LED

R: Ring
D: Dot

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
GR: Green/red²
BR: Blue/red²
GB: Green/blue²

LED Voltage

00: No resistor³
06: 6 volt
12: 12 volt
24: 24 volt

Termination

28: 2.8mm tabs
ST: Screws

CMI20 / / F / / / / M / S /

¹ 14301

² 2 pins, colour change by swapping polarity

³ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)



CM21 19mm Vandalproof Pushbutton

 19mm	 22mm	 24mm	IP65
		 25.3mm	

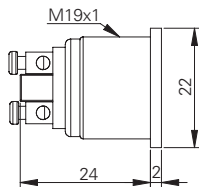
Specification

Termination	Screw or 2.8×0.5mm fast connect terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	2A, 36VDC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Silver plated brass

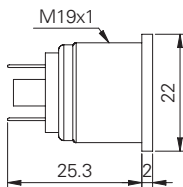
Product Dimensions

All dimensions in mm

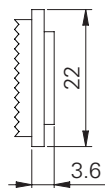
Screw Terminals Flat



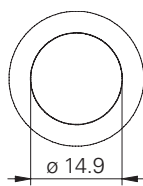
2.8mm Terminals Flat



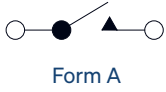
Raised



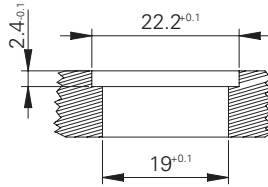
Front View (all versions)



Circuit Diagram



Mounting Dimensions



Ordering Information



Material

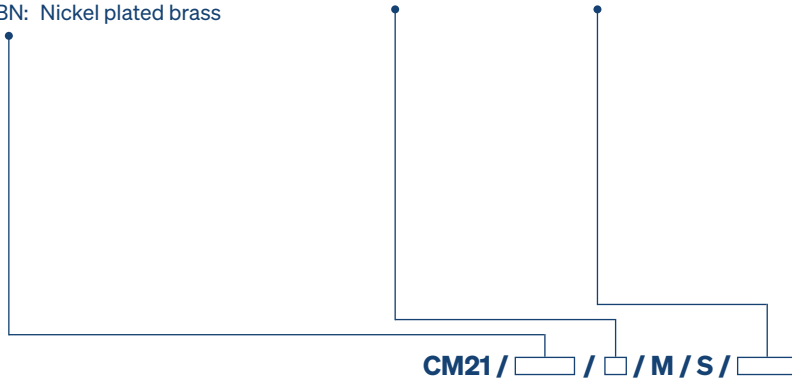
V2: Stainless steel¹
AS: Black aluminium
BN: Nickel plated brass

Button

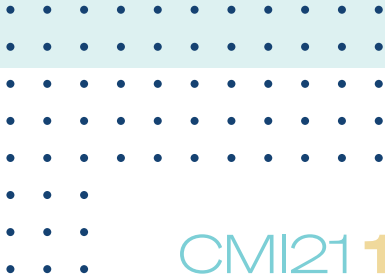
F: Flat
R: Raised

Terminations

28: 2.8mm solder
ST: Screws



¹ 14301



CMI21 19mm Vandalproof Pushbutton

19mm

22mm

27.3mm

IP65

LED

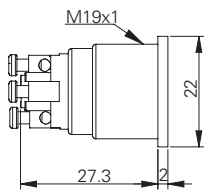
Specification

Termination	Screw terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	2A, 36VDC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Silver plated brass

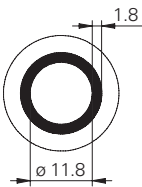
Product Dimensions

All dimensions in mm

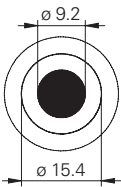
Side View



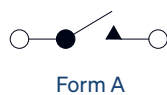
Front View (ring)



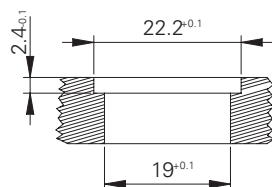
Front View (dot)



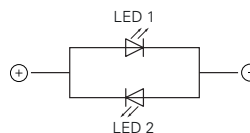
Circuit Diagram



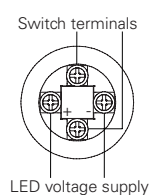
Mounting Dimensions



LED Circuit Diagram



Wiring Instructions



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

LED

R: Ring
D: Dot

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
GR: Green/red²
BR: Blue/red²
GB: Green/blue²

LED Voltage

00: No resistor³
06: 6 volt
12: 12 volt
24: 24 volt

CMI21 / / F / / / / M / S / ST

¹ 14301

² 2 pins, colour change by swapping polarity

³ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)

CM22 19mm Vandalproof Pushbutton

 19mm

 22mm

 17.2mm

IP65

 19.1mm

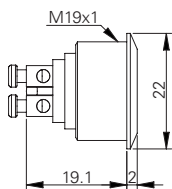
Specification

Termination	Screw or 2.8×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	2A, 36VDC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 6.0mm
Body & button material	See ordering information
Contact material	Silver plated brass

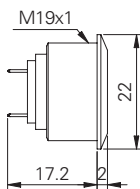
Product Dimensions

All dimensions in mm

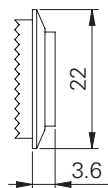
Screw Terminals Flat



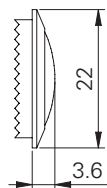
2.8mm Terminals Flat



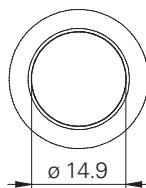
Raised



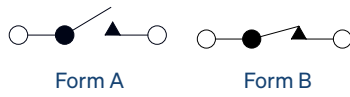
Domed



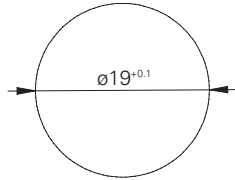
Front View (all versions)



Circuit Diagram



Mounting Dimensions



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

Button

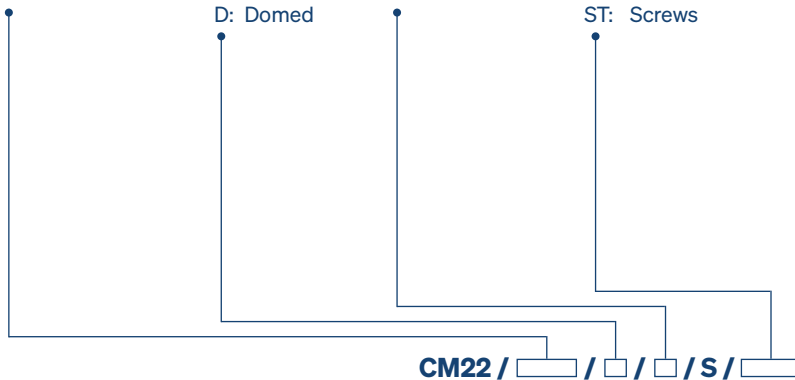
F: Flat
R: Raised
D: Domed

Switch Function

M: Momentary NO
N: Momentary NC

Terminations

20: 2.0mm solder tabs
ST: Screws



¹ 14301

CM23 19mm Vandalproof Pushbutton

 19mm	 22mm	 17.2mm	IP65
		 19.1mm	

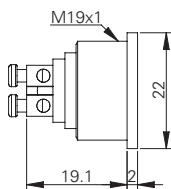
Specification

Termination	Screw or 2.0×0.5mm fast connect terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	2A, 36VDC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 6.0mm
Body & button material	See ordering information
Contact material	Silver plated brass

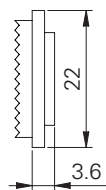
Product Dimensions

All dimensions in mm

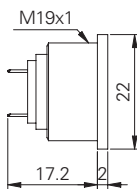
Screw Terminals Flat



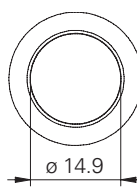
Raised



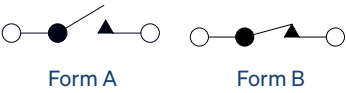
2.0mm Terminals Flat



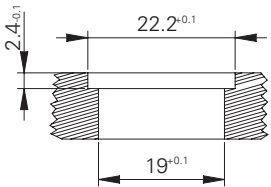
Front View (all versions)



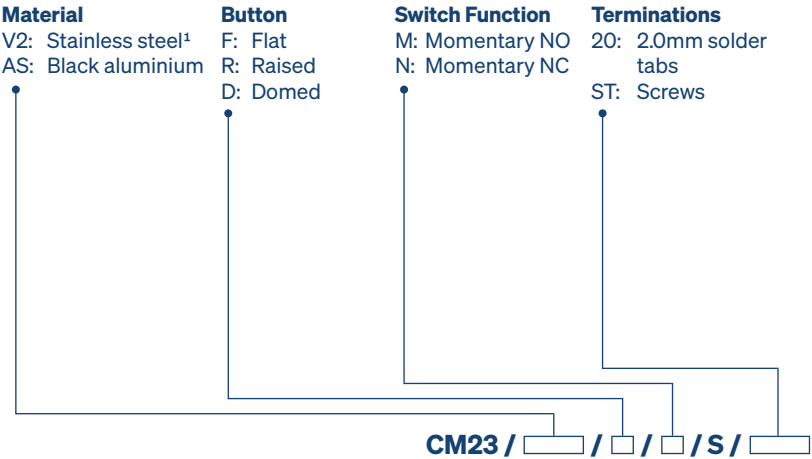
Circuit Diagram



Mounting Dimensions



Ordering Information



¹ 14301

CM25 19mm Vandalproof Pushbutton

 19mm	 22mm	 33.5mm	 39.5mm	IP65
		 35mm	 41mm	IP67

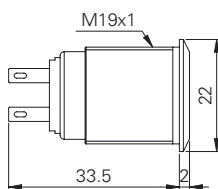
Specification

Termination	Screw or 2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single
Maximum load	5A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.8Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

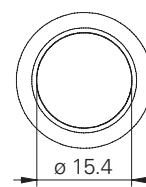
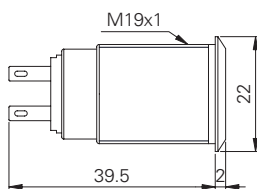
Product Dimensions

All dimensions in mm

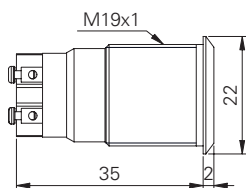
2.8mm Terminals Momentary



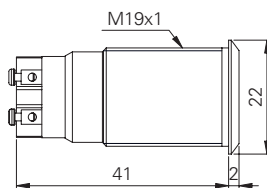
2.8mm Terminals Maintained Front View



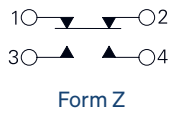
Screw Terminals Momentary



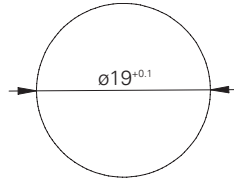
Screw Terminals Maintained



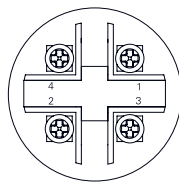
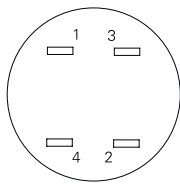
Circuit Diagram



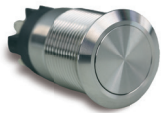
Mounting Dimensions



Contact Arrangement



Ordering Information



Material

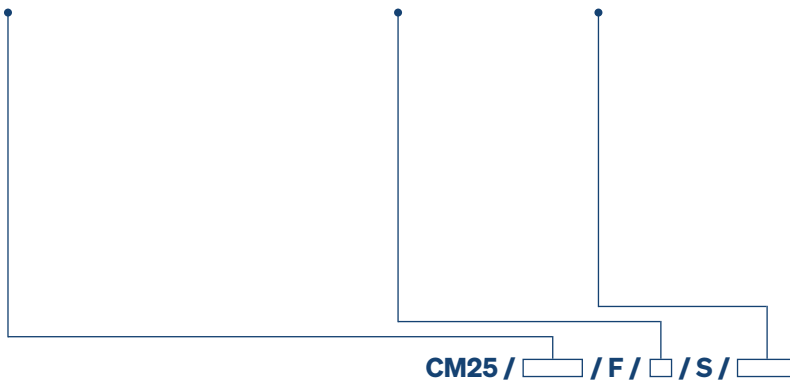
V2: Stainless steel¹
AS: Black aluminium

Switch Function

M: Momentary
L: Maintained²

Termination

28: 2.8mm tabs
ST: Screws



¹ 1.4301

² IP65 (EN60529)

Non rotating button available on request

CMI25 19mm Vandalproof Pushbutton

 19mm	 22mm	 34.5mm	 40.5mm	IP65	LED
		 35mm	 41mm	IP67	

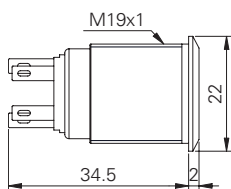
Specification

Termination	Screw or 2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single
Maximum load	5A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.8Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

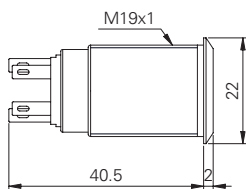
Product Dimensions

All dimensions in mm

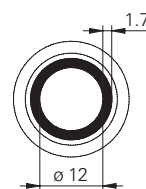
2.8mm Terminals Momentary



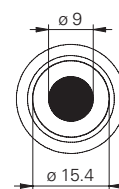
2.8mm Terminals Maintained



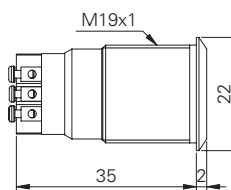
Front View (ring)



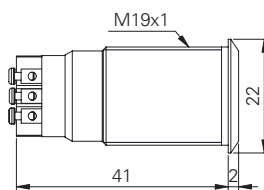
Front View (dot)



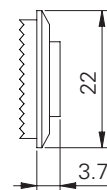
Screw Terminals Momentary



Screw Terminals Maintained



Raised



CM26 19mm Vandalproof Pushbutton

 19mm	 22mm	 33.5mm	 39.5mm	IP65
		 35mm	 41mm	IP67

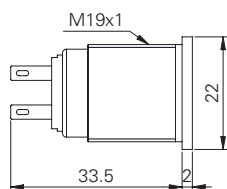
Specification

Termination	Screw or 2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single
Maximum load	5A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.8Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

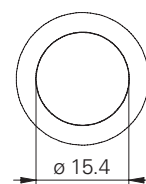
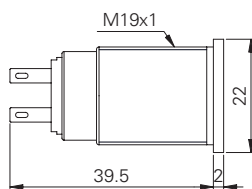
Product Dimensions

All dimensions in mm

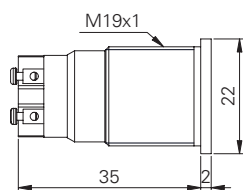
2.8mm Terminals Momentary



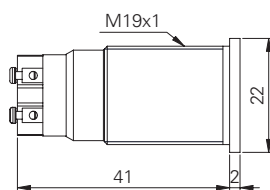
2.8mm Terminals Maintained Front View



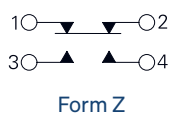
Screw Terminals Momentary



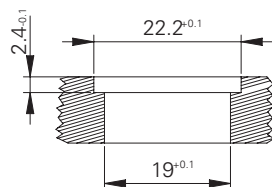
Screw Terminals Maintained



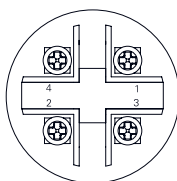
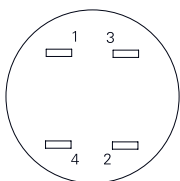
Circuit Diagram



Mounting Dimensions



Contact Arrangement



Ordering Information



Material

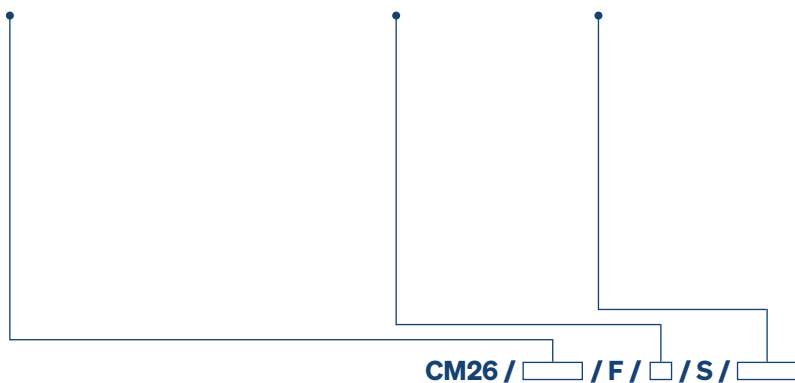
V2: Stainless steel¹
AS: Black aluminium

Switch Function

M: Momentary
L: Maintained²

Termination

28: 2.8mm tabs
ST: Screws



¹ 1.4301

² IP65 (EN60529)

Non rotating button available on request

CMI26 19mm Vandalproof Pushbutton

 19mm	 22mm	 34.5mm	 40.5mm	IP65	LED
		 35mm	 41mm	IP67	

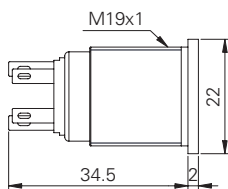
Specification

Termination	Screw or 2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single
Maximum load	5A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.8Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

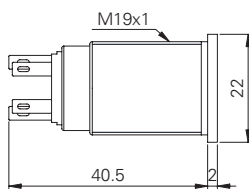
Product Dimensions

All dimensions in mm

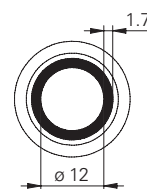
2.8mm Terminals Momentary



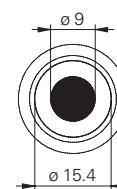
2.8mm Terminals Maintained



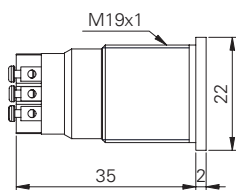
Front View (ring)



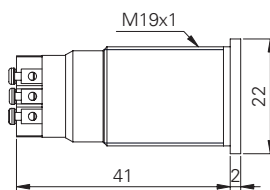
Front View (dot)



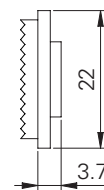
Screw Terminals Momentary

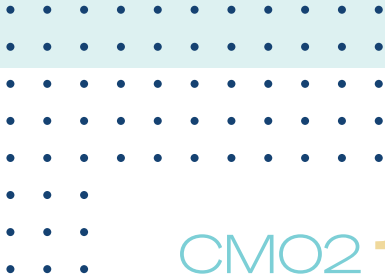


Screw Terminals Maintained



Raised





CMO2 19mm Vandalproof Pushbutton

 19mm	 22mm	 32.1mm	IP65
		 36mm	

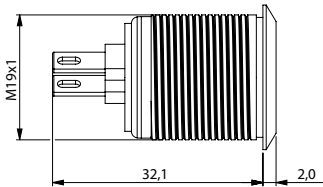
Specification

Termination	Screw or 2.8×0.8mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	50mA, 24VDC
LED voltage	-
Contact resistance	< 100mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-20°C to +55°C
Ingress protection	IP65
Duty cycle	50,000 (min)
Operating force	8N
Nut mounting torque	~ 0.57Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	Stainless steel
Contact material	Silver Alloy

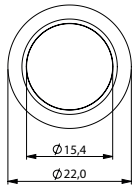
Product Dimensions

All dimensions in mm

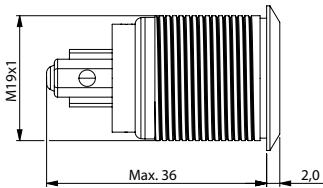
2.8mm Terminals

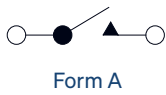
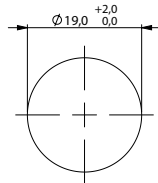
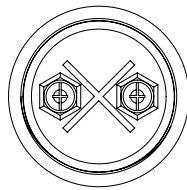
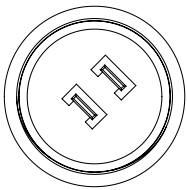


Front View



Screw Terminal



Circuit Diagram**Mounting Dimensions****Contact Arrangement****Ordering Information****Termination**

28: 2.8mm tabs

ST: Screws



CMIO2 19mm Vandalproof Pushbutton

 19mm	 22mm	 32.1mm	IP65	LED
		 36mm		

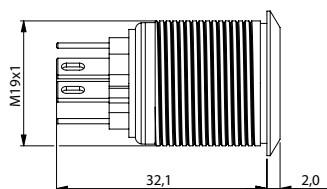
Specification

Termination	Screw or 2.8×0.8mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	50mA, 24VDC
LED voltage	See ordering information
Contact resistance	< 100mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-20°C to +55°C
Ingress protection	IP65
Duty cycle	50,000 (min)
Operating force	8N
Nut mounting torque	~ 0.57Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

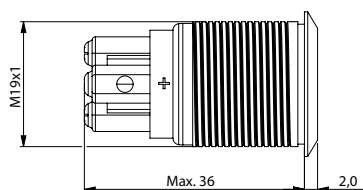
Product Dimensions

All dimensions in mm

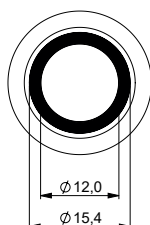
2.8mm Terminals



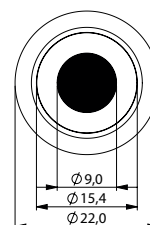
Screw Terminal



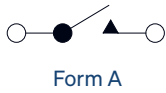
Front View (ring)



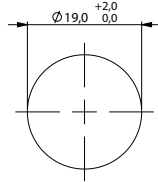
Front View (dot)



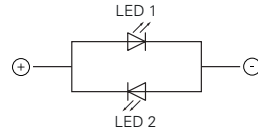
Circuit Diagram



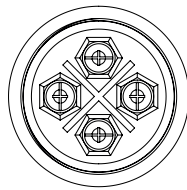
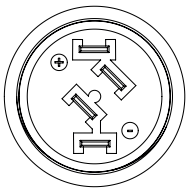
Mounting Dimensions



LED Circuit Diagram



Contact Arrangement



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium²

LED

R: Ring
D: Dot
P: Power
S: Powering

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
OR: Orange
GR: Green/red³
BR: Blue/red³
GB: Green/blue³

LED Voltage

00: No resistor⁴
03: 3.3 volt
06: 6 volt
12: 12 volt
24: 24 volt
36: 36 volt

Termination

28: 2.8mm tabs
ST: Screws

CMI02 / / F / / / / M / S /

¹ 1.4301

² Only with ring illumination

³ 2 pins, colour change by swapping polarity

⁴ Red, yellow, orange: 1.8V | Green, blue, white: 2.8V (15mA)



CM30 19mm Vandalproof Pushbutton



19mm



22mm



36.7mm

IP67



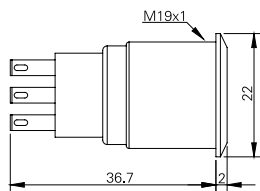
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN60529)
Duty cycle	50,000 (min)
Operating force	3 ~ 5N
Nut mounting torque	~ 0.8Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

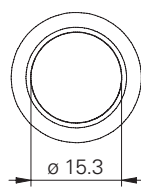
Product Dimensions

All dimensions in mm

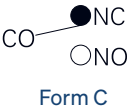
Side View



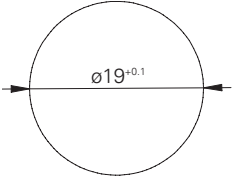
Front View



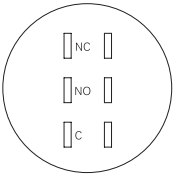
Circuit Diagram



Mounting Dimensions



Contact Arrangement



Ordering Information



Material

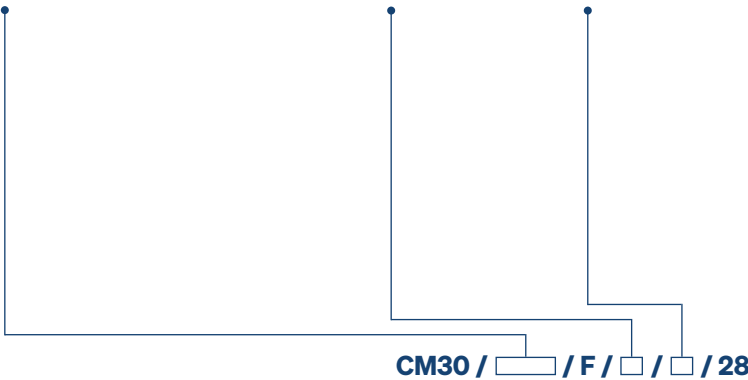
V2: Stainless steel¹
AS: Black aluminium

Switch Function

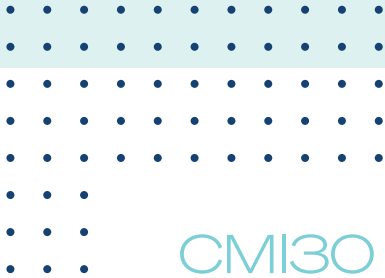
M: Momentary
L: Maintained

Poles

S: Single
D: Double



¹ 14301



CM130 19mm Vandalproof Pushbutton

19mm

22mm

38mm

IP67

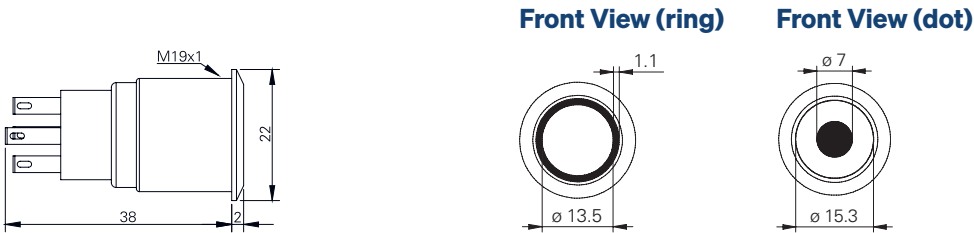
LED

Specification

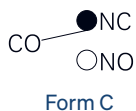
Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Duty cycle	50,000 (min)
Operating force	3 ~ 5N
Nut mounting torque	~ 0.8Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

Product Dimensions

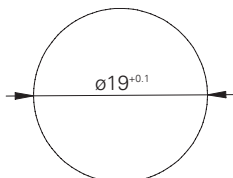
All dimensions in mm



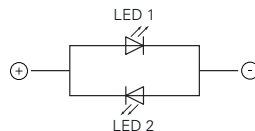
Circuit Diagram



Mounting Dimensions

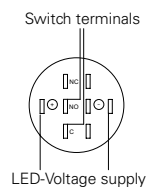


LED Circuit Diagram

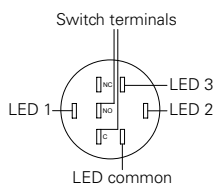


Wiring Instructions

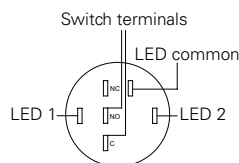
2 LED pins



4 LED pins (RGB)⁵



3 LED pins (bi-colour)⁴



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

LED

R: Ring
D: Dot
P: Power
S: Powering
X: Custom²

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
GR: Green/red³
BR: Blue/red³

GB: Green/blue³
O1: Green/red^{4,7}
O2: Green/blue^{4,7}
O3: Blue/red^{4,7}
10: RGB common anode^{5,7}
11: RGB common cathode^{5,7}

LED Voltage

00: No resistor⁶
06: 6 volt
12: 12 volt
24: 24 volt

Switch Function

M: Momentary
L: Maintained

Poles

S: Single
D: Double

CM130 / / F / / / / / 28

¹ 1.4301

² IP65 (EN60529)

³ 2 pins, colour change by swapping polarity

⁴ 3 pins for LED connection (one per colour and common cathode (common anode available on request))

⁵ Red/green/blue, 4 pins for LED connection (one per colour and common)

⁶ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)

⁷ Only available with single pole



CM31 19mm Vandalproof Pushbutton

 19mm

 22mm

 36.7mm

IP67



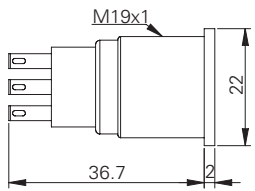
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	50A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN60529)
Duty cycle	50,000 (min)
Operating force	3 ~ 5N
Nut mounting torque	~ 0.8Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

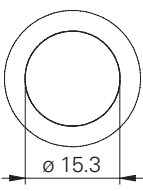
Product Dimensions

All dimensions in mm

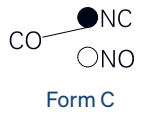
Side View



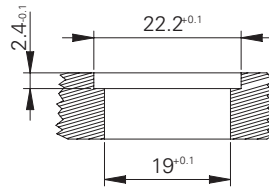
Front View



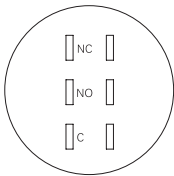
Circuit Diagram



Mounting Dimensions



Contact Arrangement



Ordering Information



Material

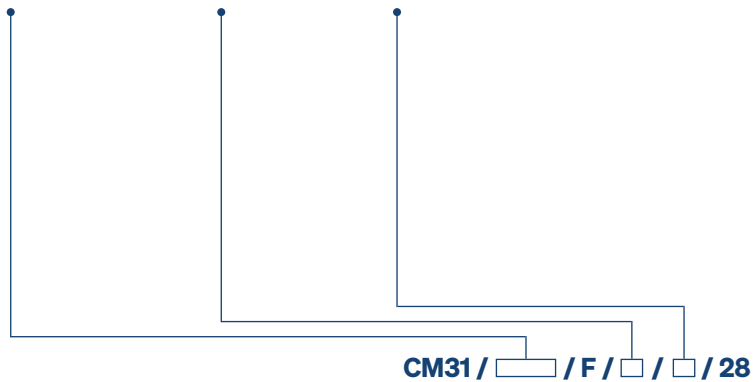
V2: Stainless steel¹
 AS: Black aluminium

Switch Function

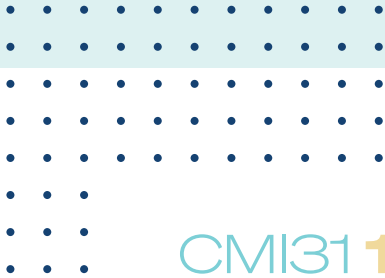
M: Momentary
 L: Maintained

Poles

S: Single
 D: Double



¹ 14301



CMI31 19mm Vandalproof Pushbutton

19mm

22mm

38mm

IP67

LED

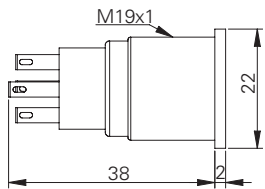
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Duty cycle	50,000 (min)
Operating force	3 ~ 5N
Nut mounting torque	~ 0.8Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

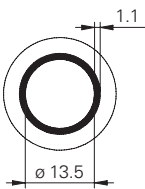
Product Dimensions

All dimensions in mm

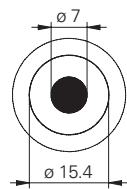
Side View



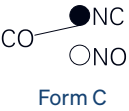
Front View (ring)



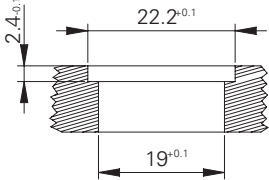
Front View (dot)



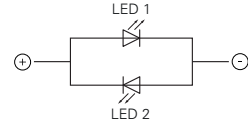
Circuit Diagram



Mounting Dimensions

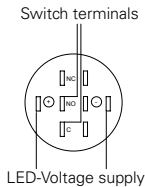


LED Circuit Diagram

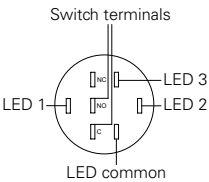


Wiring Instructions

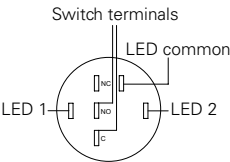
2 LED pins



4 LED pins (RGB)⁵



3 LED pins (bi-colour)⁴



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

LED

R: Ring
D: Dot
X: Custom²

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
GR: Green/red³
BR: Blue/red³
GB: Green/blue³
O1: Green/red^{4,7}
O2: Green/blue^{4,7}
O3: Blue/red^{4,7}
T1: RGB^{5,7}

LED Voltage

00: No resistor⁶
06: 6 volt
12: 12 volt
24: 24 volt

Switch Function

M: Momentary
L: Maintained

Poles

S: Single
D: Double

CMI31 / [] / F / [] / [] / [] / [] / 28

¹ 14301
² IP65 (EN60529)
³ 2 pins, colour change by swapping polarity
⁴ 3 pins for LED connection (one per colour and common cathode (common anode available on request))
⁵ Red/green/blue, 4 pins for LED connection (one per colour and common cathode (common anode available on request))
⁶ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)
⁷ Only available with single pole

CM27 19mm Vandalproof Pushbutton

 19mm	 22mm	 44.9mm	IP65
		 51.2mm	IP67

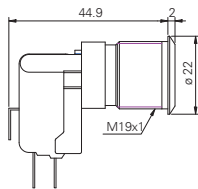
Specification

Termination	4.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single
Maximum load	16A, 250VAC (resistive)
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 8.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

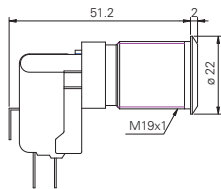
Product Dimensions

All dimensions in mm

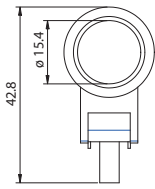
Momentary



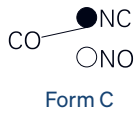
Maintained



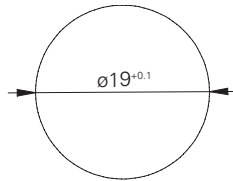
Front View



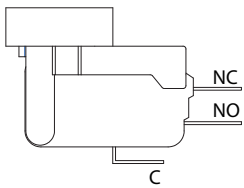
Circuit Diagram



Mounting Dimensions



Contact Arrangement



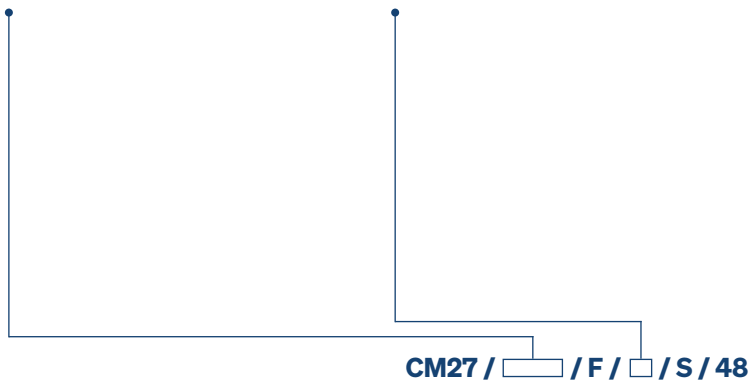
Ordering Information

Material

V2: Stainless steel¹
 AS: Black aluminium

Switch Function

M: Momentary
 L: Maintained²



¹ 1.4301

² IP65 (EN60529)

Non rotating button available on request



CMI27 19mm Vandalproof Pushbutton

 19mm	 22mm	 44.9mm	IP65	LED
		 51.2mm	IP67	

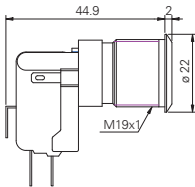
Specification

Termination	4.8×0.5 + 2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single
Maximum load	16A, 250VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.8Nm
Panel thickness	1.0mm to 8.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

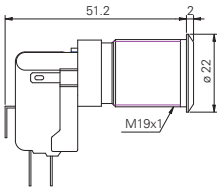
Product Dimensions

All dimensions in mm

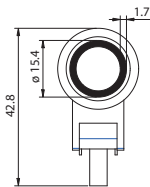
Momentary



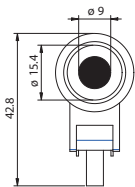
Maintained



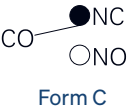
Front View (ring)



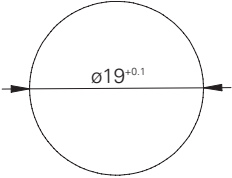
Front View (dot)



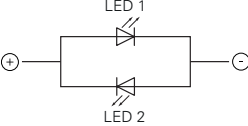
Circuit Diagram



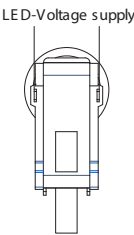
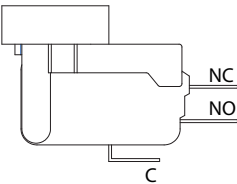
Mounting Dimensions



LED Circuit Diagram



Wiring Instructions



Ordering Information



Material	LED	LED Colour	LED Voltage	Switch Function
V2: Stainless steel ¹	R: Ring	GN: Green	00: No resistor ⁴	M: Momentary
AS: Black aluminium	D: Dot	RD: Red	06: 6 volt	L: Maintained ²
	S: Powerring ²	YL: Yellow	12: 12 volt	
	X: Custom ²	BL: Blue	24: 24 volt	
		WH: White		
		GR: Green/red ³		
		BR: Blue/red ³		
		GB: Green/blue ³		

CMI27 / [Material] / [LED] / [LED Colour] / [LED Voltage] / [Switch Function] / 48

¹ 14301
² IP65 (EN60529)
³ 2 pins, colour change by swapping polarity
⁴ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)

Non rotating button available on request



CM32 22mm Vandalproof Pushbutton

22mm

25mm

13.2mm

IP67

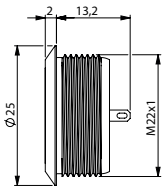
Specification

Termination	2.0×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	50mA, 24VDC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	5-14Nm
Panel thickness	1.0mm to 3.0mm
Body & button material	See ordering information
Contact material	Gold plated brass

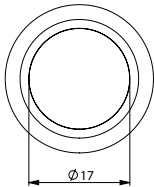
Product Dimensions

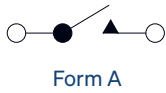
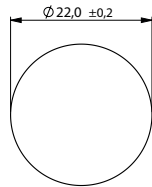
All dimensions in mm

Flat



Front View (all versions)



Circuit Diagram**Mounting Dimensions****Ordering Information****Material**

V2: Stainless steel¹

CM32 / / F / M / S / 20

¹ 1.4301



CMI32 22mm Vandalproof Pushbutton

 22mm

 25mm

 13.2mm

IP67

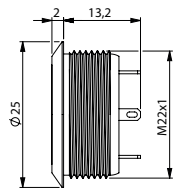
Specification

Termination	2.0×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	50mA, 24VDC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	5-14Nm
Panel thickness	1.0mm to 3.0mm
Body & button material	See ordering information
Contact material	Gold plated brass

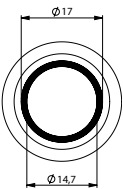
Product Dimensions

All dimensions in mm

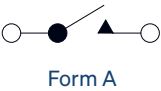
Flat



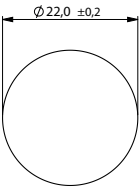
Front View (all versions)



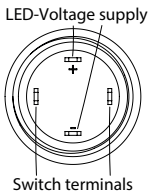
Circuit Diagram



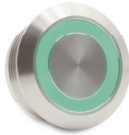
Mounting Dimensions



Wiring Instructions



Ordering Information



Material
V2: Stainless steel¹

LED Colour
GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White

LED Voltage
03: 3 volt
06: 6 volt
12: 12 volt
24: 24 volt

CMI32 / / F / R / / / M / S / 20

¹ 14301



CM58 22mm Vandalproof Pushbutton

22mm

25mm

23.5mm

IP67

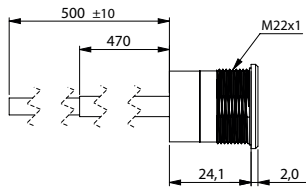
Specification

Termination	50cm flying leads
Switching function	Momentary or maintained
Configuration of poles	Single
Maximum load	10mA, 12VDC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +85°C
Ingress protection	IP67 (EN 60529)
Duty cycle	20,000 (min)
Operating force	3N
Nut mounting torque	1.2Nm
Panel thickness	1.3mm to 3.8mm
Body & button material	See ordering information
Contact material	See ordering information

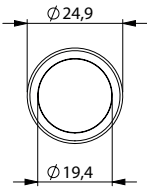
Product Dimensions

All dimensions in mm

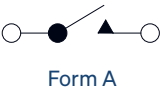
Flying Leads



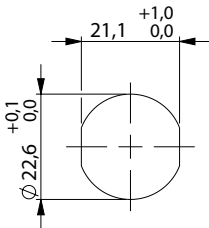
Front View



Circuit Diagram



Mounting Dimensions



Ordering Information



Material

V2: Stainless steel¹
AN: Silver aluminium

Switch Function

M: Momentary
L: Maintained

CM58 / / F / / S / L4

¹ 14301



CMI58 22mm Vandalproof Pushbutton

22mm

25mm

23.5mm

IP67

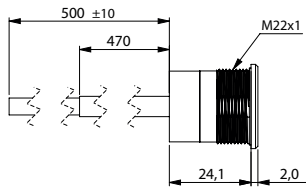
Specification

Termination	50cm flying leads
Switching function	Momentary or maintained
Configuration of poles	Single
Maximum load	10mA, 12VDC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +85°C
Ingress protection	IP67 (EN 60529)
Duty cycle	20,000 (min)
Operating force	3N
Nut mounting torque	1.2Nm
Panel thickness	1.3mm to 3.8mm
Body & button material	See ordering information
Contact material	See ordering information

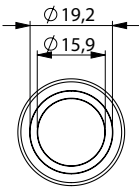
Product Dimensions

All dimensions in mm

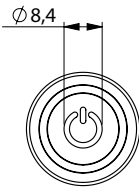
Flying Leads



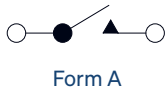
Front View
(ring)



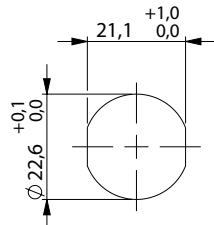
Front View
(power)



Circuit Diagram



Mounting Dimensions



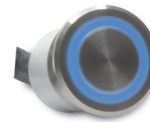
Wiring Instructions

- Switch wire
- Switch wire
- LED colour 1 wire for +LED
- LED colour 1 wire for -LED

if the switch has two LED colours, additionally:

- LED colour 2 wire for +LED
- LED colour 2 wire for -LED

Ordering Information



Material

V2: Stainless steel¹
AN: Silver aluminium

LED

R: Ring
P: Power

LED Colour

GN: Green
RD: Red
BL: Blue
WH: White
63: Blue/red
60: Green/red
62: Blue/green

LED Voltage

05: 5 volt
12: 12 volt
24: 24 volt

Switch Function

M: Momentary
L: Maintained

CMI58 / / F / / / / S / L4

¹ 14301

CM35 22mm Vandalproof Pushbutton

 22mm	 25mm	 34.8mm	 40.3mm	IP65
		 35.3mm	 41mm	IP67

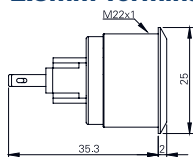
Specification

Termination	Screw or 2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 8.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

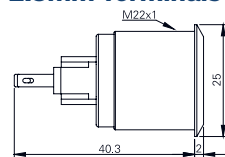
Product Dimensions

All dimensions in mm

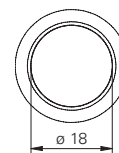
2.8mm Terminals Momentary



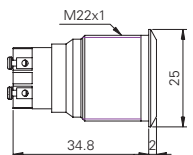
2.8mm Terminals Maintained



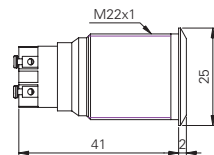
Front View (all versions)



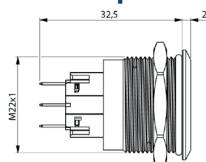
Screw Terminals Momentary



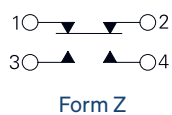
Screw Terminals Maintained



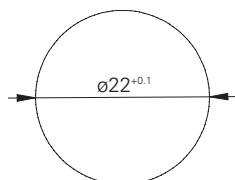
Double pole



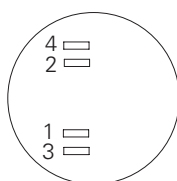
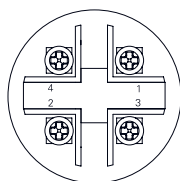
Circuit Diagram



Mounting Dimensions



Contact Arrangement



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

Switch Function

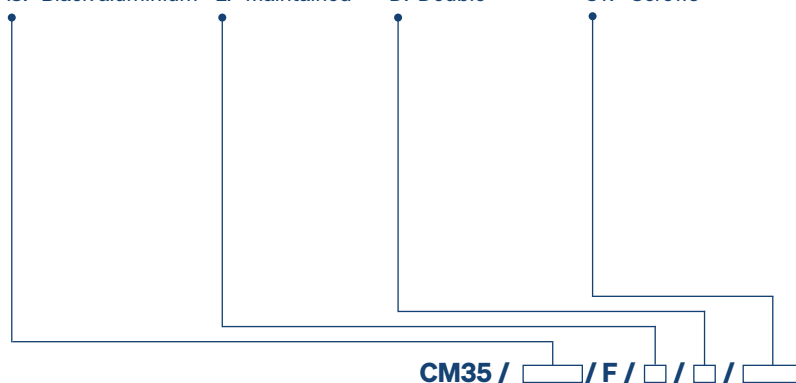
M: Momentary
L: Maintained²

Poles

S: Single
D: Double

Termination

28: 2.8mm tabs
ST: Screws³



¹ 1.4301

² IP65 (EN60529)

³ Only available for single pole

Non rotating button available on request



CMI35 22mm Vandalproof Pushbutton

 22mm	 25mm	 34.8mm	 40.3mm	IP65	LED
		 35.3mm	 41mm	IP67	

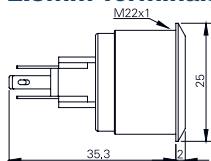
Specification

Termination	Screw or 2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 8.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

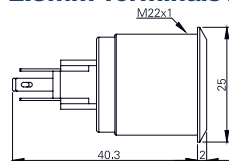
Product Dimensions

All dimensions in mm

2.8mm Terminals Momentary



2.8mm Terminals Maintained



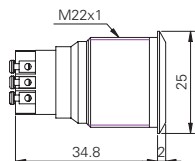
Front View (ring)



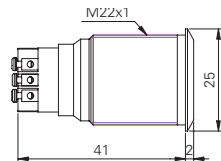
Front View (dot)



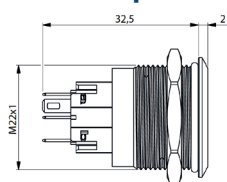
Screw Terminals Momentary



Screw Terminals Maintained



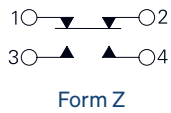
Double pole



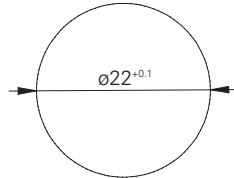
Front View (powering)



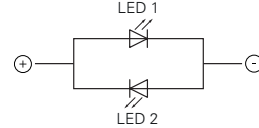
Circuit Diagram



Mounting Dimensions

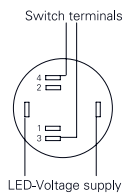


LED Circuit Diagram

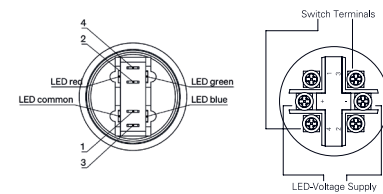


Wiring Instructions

2 LED pins



3&4 LED pins^{4,5}



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

LED

R: Ring
D: Dot
S: Powerring²
X: Custom²

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
GR: Green/red³
BR: Blue/red³
GB: Green/blue³
01: Green/red^{4,7}
02: Green/blue^{4,7}
03: Blue/red^{4,7}
11: RGB^{5,7}

LED Voltage

00: No resistor⁶
06: 6 volt
12: 12 volt
24: 24 volt

Switch Function

M: Momentary
L: Maintained²

Poles

S: Single
D: Double

Termination

28: 2.8mm tabs
ST: Screws⁸

CMI35 / [Material] / F / [LED] / [LED Colour] / [LED Voltage] / [Switch Function] / [Poles] / [Termination]

¹ 14301

² IP65 (EN60529)

³ 2 pins, colour change by swapping polarity

⁴ 3 pins for LED connection (one per colour and common cathode (common anode available on request))

⁵ Red/green/blue, 4 pins for LED connection (one per colour and common cathode (common anode available on request))

⁶ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)

⁷ Only available with solder terminals

⁸ Only available for single pole

Non rotating button available on request

CM36 22mm Vandalproof Pushbutton

 22mm	 25mm	 35.3mm	IP65
		 40.3mm	IP67

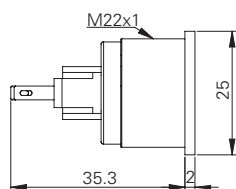
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single
Maximum load	5A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 8.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

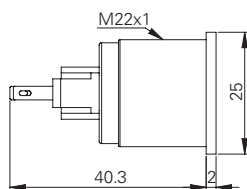
Product Dimensions

All dimensions in mm

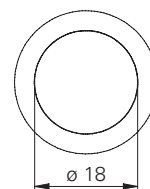
Momentary



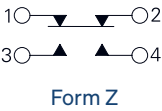
Maintained



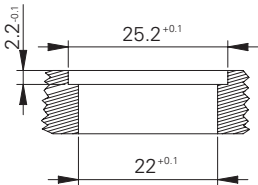
Front View (all versions)



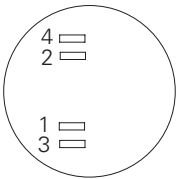
Circuit Diagram



Mounting Dimensions



Contact Arrangement

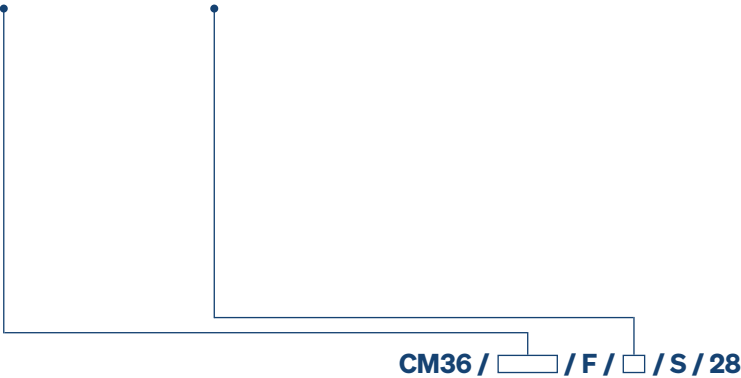


Ordering Information



Material
V2: Stainless steel¹
AS: Black aluminium

Switch Function
M: Momentary
L: Maintained²



¹ 1.4301
² IP65 (EN60529)
Non rotating button available on request

CMI36 22mm Vandalproof Pushbutton

 22mm	 25mm	 35.3mm	IP65	LED
		 40.3mm	IP67	

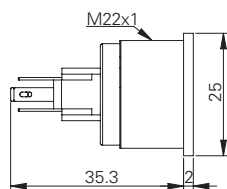
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single
Maximum load	5A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 8.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

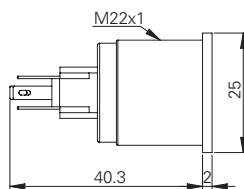
Product Dimensions

All dimensions in mm

2.8mm Terminals Momentary



2.8mm Terminals Maintained



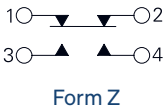
Front View (ring)



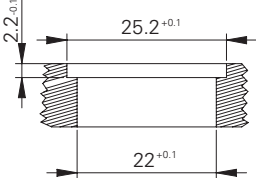
Front View (dot)



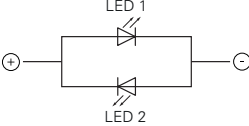
Circuit Diagram



Mounting Dimensions

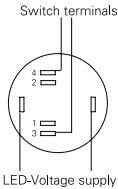


LED Circuit Diagram

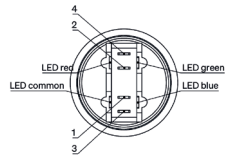


Wiring Instructions

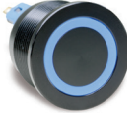
2 LED pins



3&4 LED pins^{4,5}



Ordering Information



Material	LED	LED Colour	LED Voltage	Switch Function
V2: Stainless steel ¹	R: Ring	GN: Green	00: No resistor ⁶	M: Momentary
AS: Black aluminium	D: Dot	RD: Red	06: 6 volt	L: Maintained ²
	X: Custom ²	YL: Yellow	12: 12 volt	
		BL: Blue	24: 24 volt	
		WH: White		
		GR: Green/red ³		
		BR: Blue/red ³		
		GB: Green/blue ³		
		O1: Green/red ⁴		
		O2: Green/blue ⁴		
		O3: Blue/red ⁴		
		T1: RGB ⁵		

CMI36 / [] / F / [] / [] / [] / S / 28

¹ 14301
² IP65 (EN60529)
³ 2 pins, colour change by swapping polarity
⁴ 3 pins for LED connection (one per colour and common cathode (common anode available on request))
⁵ Red/green/blue, 4 pins for LED connection (one per colour and common cathode (common anode available on request))
⁶ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)

Non rotating button available on request



CM37 22mm Vandalproof Pushbutton



22mm



25mm



25.3mm

IP65

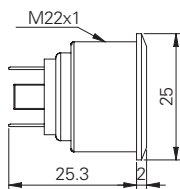
Specification

Termination	2.8×0.5mm fast connect terminals or screw terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	2A, 36VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-20°C to +55°C
Ingress protection	IP65 (EN60529)
Duty cycle	200,000 (min)
Operating force	4N
Nut mounting torque	5 ~ 14Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Silver Alloy

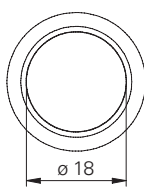
Product Dimensions

All dimensions in mm

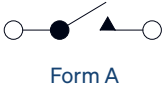
Side View



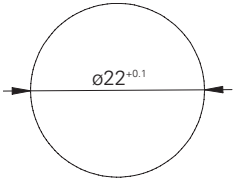
Front View



Circuit Diagram



Mounting Dimensions



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

CM37 / / F / M / S / 28

¹ 1.4301



CM42 25mm Vandalproof Pushbutton

 25mm

 28mm

 12.5mm

IP67

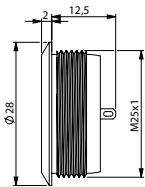
Specification

Termination	2.0×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	50mA, 24VDC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	5-14Nm
Panel thickness	1.0mm to 3.0mm
Body & button material	See ordering information
Contact material	Gold plated brass

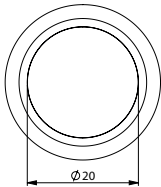
Product Dimensions

All dimensions in mm

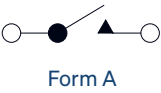
Flat



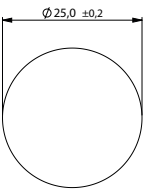
Front View (all versions)



Circuit Diagram



Mounting Dimensions



Ordering Information



Material
V2: Stainless steel¹
AS: Black aluminium



¹ 1.4301



CMI42 25mm Vandalproof Pushbutton

 25mm

 28mm

 12.5mm

IP67

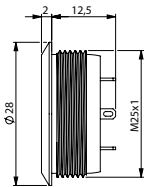
Specification

Termination	2.0×0.5mm solder terminals
Switching function	Momentary
Configuration of poles	Single
Maximum load	50mA, 24VDC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 1000MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Duty cycle	50,000 (min)
Operating force	4N
Nut mounting torque	5-14Nm
Panel thickness	1.0mm to 3.0mm
Body & button material	See ordering information
Contact material	Gold plated brass

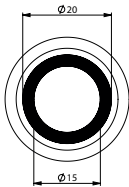
Product Dimensions

All dimensions in mm

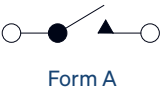
Flat



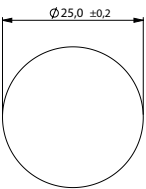
Front View (all versions)



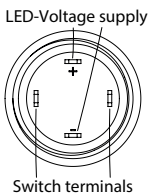
Circuit Diagram



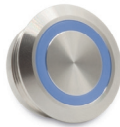
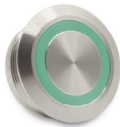
Mounting Dimensions



Wiring Instructions



Ordering Information



Material
V2: Stainless steel¹
AS: Black aluminium

LED Colour
GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White

LED Voltage
00: No resistor²
06: 6 volt
12: 12 volt
24: 24 volt

CMI42 / / F / R / / / M / S / 20

¹ 1.4301
² Red, yellow: 1.8V | Green, blue, white: 2.8V (20mA)

CM4O 25mm Vandalproof Pushbutton

 25mm	 28mm	 34.8mm	 40.8mm	IP65
		 38.5mm	 41mm	IP67

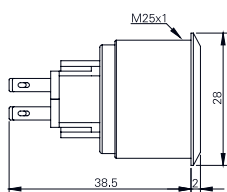
Specification

Termination	Screw or 2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	Single pole: 4N, double pole: 7.5N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Gold plated

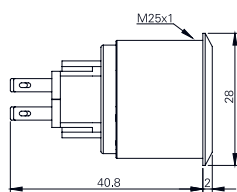
Product Dimensions

All dimensions in mm

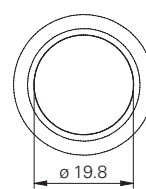
2.8mm Terminals Momentary



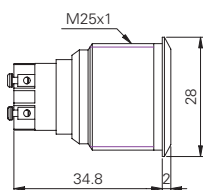
2.8mm Terminals Maintained



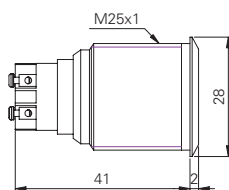
Front View (all versions)



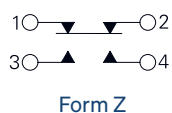
Screw Terminals Momentary



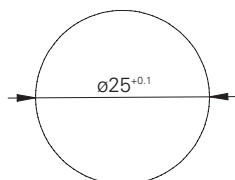
Screw Terminals Maintained



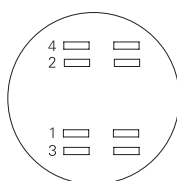
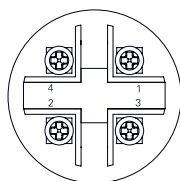
Circuit Diagram



Mounting Dimensions



Contact Arrangement



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

Switch Function

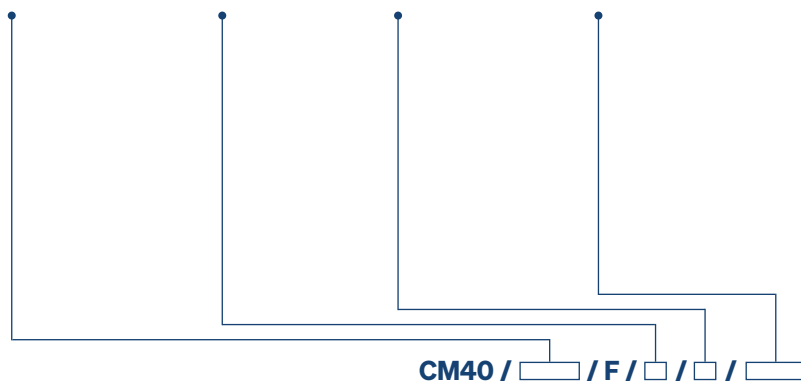
M: Momentary
L: Maintained²

Poles

S: Single
D: Double

Termination

28: 2.8mm tabs
ST: Screws³



¹ 1.4301

² IP65 (EN60529)

³ Only available with single pole

Non rotating button available on request

CMI4O 25mm Vandalproof Pushbutton

 25mm	 28mm	 34.8mm	 40.8mm	IP65	LED
		 38.5mm	 41mm	IP67	

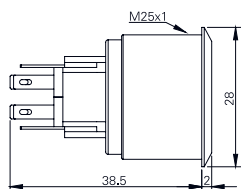
Specification

Termination	Screw or 2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	Single pole: 4N, double pole: 7.5N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Gold plated

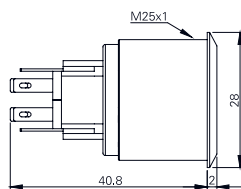
Product Dimensions

All dimensions in mm

2.8mm Terminals Momentary



2.8mm Terminals Maintained



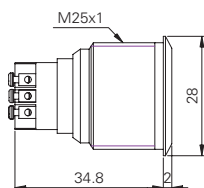
Front View (ring)



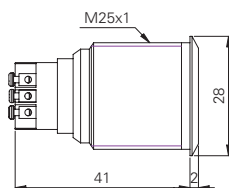
Front View (dot)



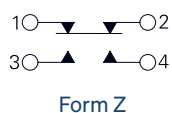
Screw Terminals Momentary



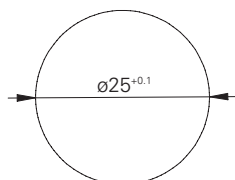
Screw Terminals Maintained



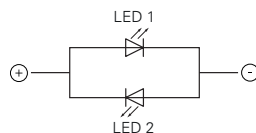
Circuit Diagram



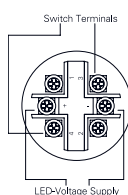
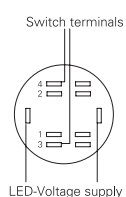
Mounting Dimensions



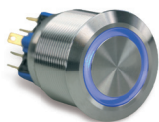
LED Circuit Diagram



Wiring Instructions



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

LED

R: Ring
D: Dot
S: Powerring²
X: Custom²

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
GR: Green/red³
BR: Blue/red³
GB: Green/blue³
10: RGB common anode
11: RGB common cathode

LED Voltage

00: No resistor⁴
06: 6 volt
12: 12 volt
24: 24 volt

Switch Function

M: Momentary
L: Maintained²

Poles

S: Single
D: Double

Terminations

28: 2.8mm tabs
ST: Screws^{5,6}

CMI40 / [Material] / [LED] / [LED Colour] / [LED Voltage] / [Switch Function] / [Poles] / [Terminations]

¹ 14301

² IP65 (EN60529)

³ 2 pins, colour change by swapping polarity

⁴ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)

⁵ Only available with single pole

⁶ Not available in combination with RGB LED

Non rotating button available on request

CM41 25mm Vandalproof Pushbutton

 25mm	 28mm	 38.5mm	IP65
		 40.8mm	IP67

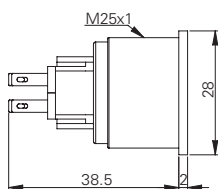
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	Single pole: 4N, double pole: 7.5N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Gold plated

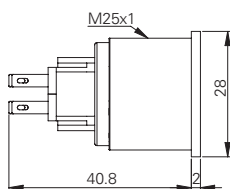
Product Dimensions

All dimensions in mm

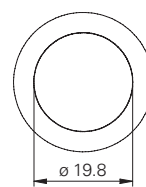
Momentary



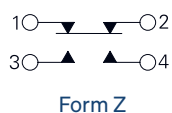
Maintained



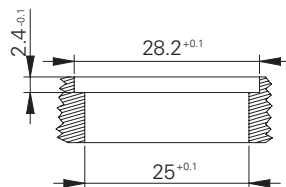
Front View (all versions)



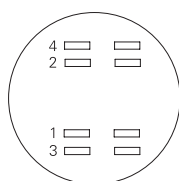
Circuit Diagram



Mounting Dimensions



Contact Arrangement



Ordering Information



Material

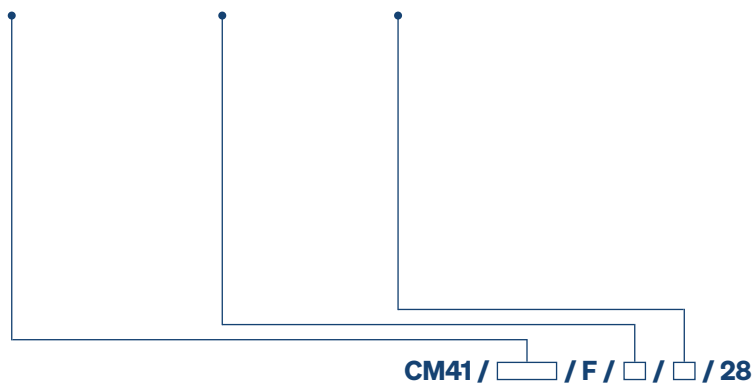
V2: Stainless steel¹
AS: Black aluminium

Switch Function

M: Momentary
L: Maintained²

Poles

S: Single
D: Double



¹ 1.4301

² IP65 (EN60529)

Non rotating button available on request

CMI41 25mm Vandalproof Pushbutton

 25mm	 28mm	 38.5mm	IP65	LED
		 40.8mm	IP67	

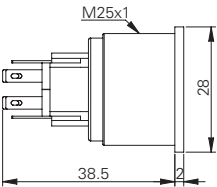
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	Single pole: 4N, double pole: 7.5N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Gold plated

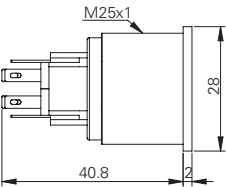
Product Dimensions

All dimensions in mm

Momentary



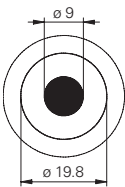
Maintained



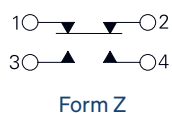
Front View (ring)



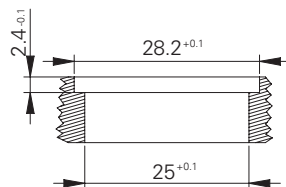
Front View (dot)



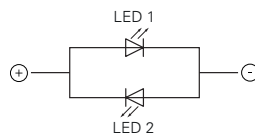
Circuit Diagram



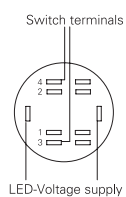
Mounting Dimensions



LED Circuit Diagram



Wiring Instructions



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

LED

R: Ring
D: Dot
X: Custom²

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
GR: Green/red³
BR: Blue/red³
GB: Green/blue³

LED Voltage

00: No resistor⁴
06: 6 volt
12: 12 volt
24: 24 volt

Switch Function

M: Momentary
L: Maintained³

Poles

S: Single
D: Double

CMI41 / / F / / / / / 28

¹ 14301

² IP65 (EN60529)

³ 2 pins, colour change by swapping polarity

⁴ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)

CM45 28mm Vandalproof Pushbutton

 28mm	 32mm	 35mm	 40.8mm	IP65
		 38.4mm	 40.9mm	IP67

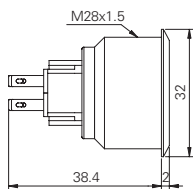
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	Single pole: 4N, double pole: 7.5N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Gold plated

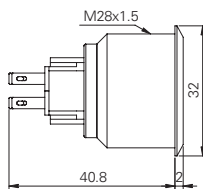
Product Dimensions

All dimensions in mm

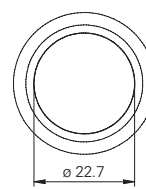
2.8mm Terminals Momentary



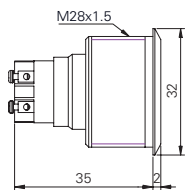
2.8mm Terminals Maintained



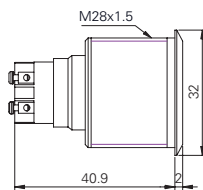
Front View (all versions)



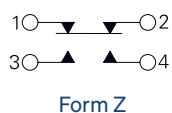
Screw Terminals Momentary



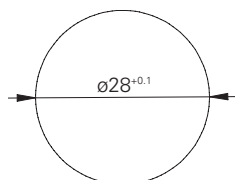
Screw Terminals Maintained



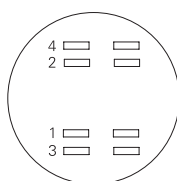
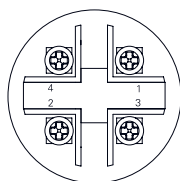
Circuit Diagram



Mounting Dimensions



Contact Arrangement



Ordering Information



Material

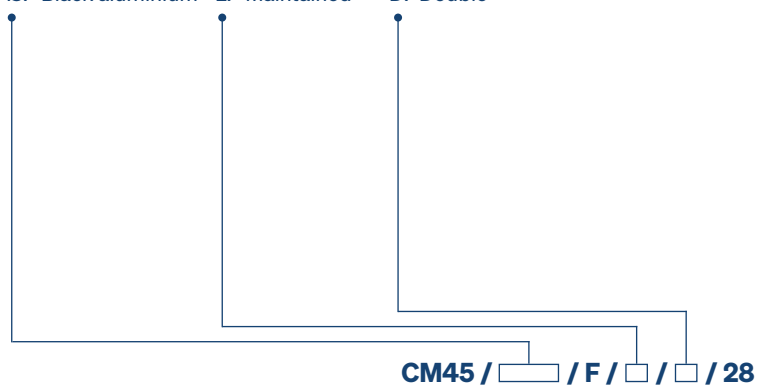
V2: Stainless steel¹
AS: Black aluminium

Switch Function

M: Momentary
L: Maintained²

Poles

S: Single
D: Double



¹ 1.4301

² IP65 (EN60529)

Non rotating button available on request

CMI45 28mm Vandalproof Pushbutton

 28mm	 32mm	 35mm	 40.8mm	IP65	LED
		 38.4mm	 40.9mm	IP67	

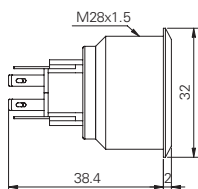
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	Single pole: 4N, double pole: 7.5N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Gold plated

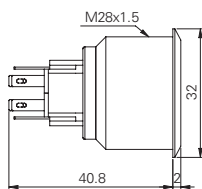
Product Dimensions

All dimensions in mm

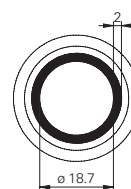
2.8mm Terminals Momentary



2.8mm Terminals Maintained



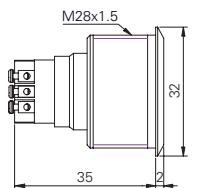
Front View (ring)



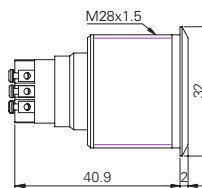
Front View (dot)



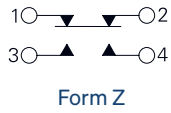
Screw Terminals Momentary



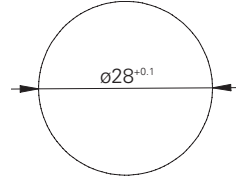
Screw Terminals Maintained



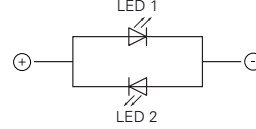
Circuit Diagram



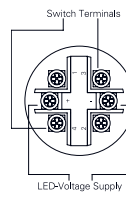
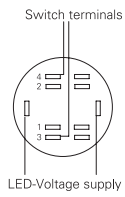
Mounting Dimensions



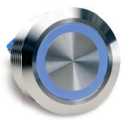
LED Circuit Diagram



Wiring Instructions



Ordering Information



Material	LED	LED Colour	LED Voltage	Switch Function	Poles
V2: Stainless steel ¹ AS: Black aluminium	R: Ring D: Dot	GN: Green RD: Red YL: Yellow BL: Blue WH: White GR: Green/red ³ BR: Blue/red ³ GB: Green/blue ³	00: No resistor ⁴ 06: 6 volt 12: 12 volt 24: 24 volt	M: Momentary L: Maintained ²	S: Single D: Double

CM145 / [] / F / [] / [] / [] / [] / 28

¹ 14301

² IP65 (EN60529)

³ 2 pins, colour change by swapping polarity

⁴ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)

Non rotating button available on request

CM46 28mm Vandalproof Pushbutton

 28mm	 32mm	 38.4mm	IP65
		 40.8mm	IP67

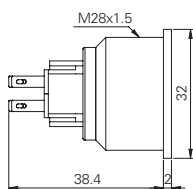
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	Single pole: 4N, double pole: 7.5N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Gold plated

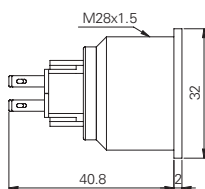
Product Dimensions

All dimensions in mm

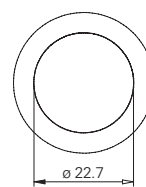
Momentary



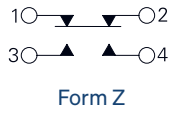
Maintained



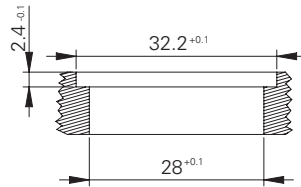
Front View



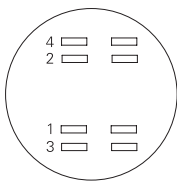
Circuit Diagram



Mounting Dimensions



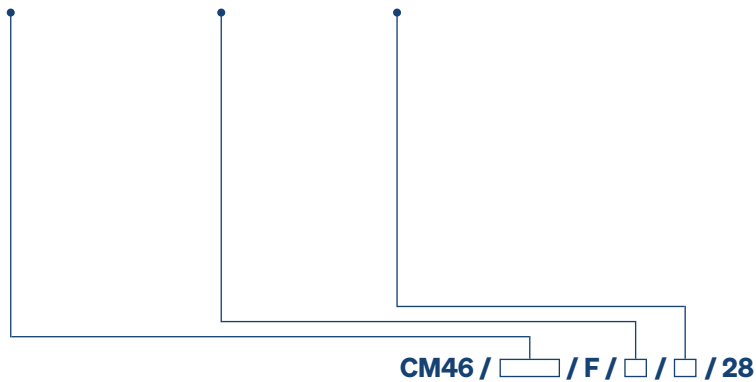
Contact Arrangement



Ordering Information



Material	Switch Function	Poles
V2: Stainless steel ¹	M: Momentary	S: Single
AS: Black aluminium	L: Maintained ²	D: Double



¹ 1.4301

² IP65 (EN60529)

Non rotating button available on request

CMI46 28mm Vandalproof Pushbutton

 28mm	 32mm	 38.4mm	IP65	LED
		 40.8mm	IP67	

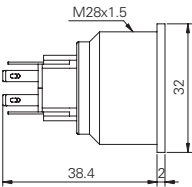
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	Single pole: 4N, double pole: 7.5N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Gold plated

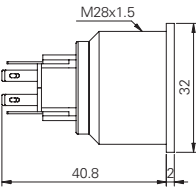
Product Dimensions

All dimensions in mm

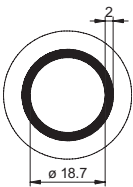
Momentary



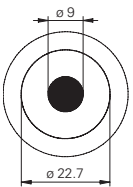
Maintained



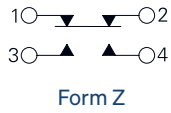
Front View (ring)



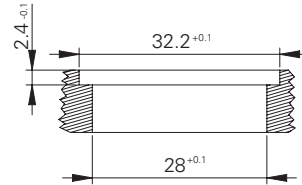
Front View (dot)



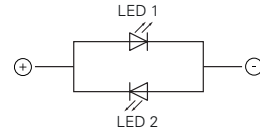
Circuit Diagram



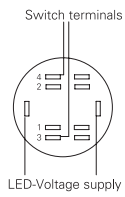
Mounting Dimensions



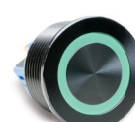
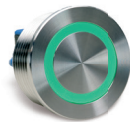
LED Circuit Diagram



Wiring Instructions



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

LED

R: Ring
D: Dot

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
GR: Green/red³
BR: Blue/red³
GB: Green/blue³

LED Voltage

00: No resistor⁴
06: 6 volt
12: 12 volt
24: 24 volt

Switch Function

M: Momentary
L: Maintained²

Poles

S: Single
D: Double

CMI46 / / F / / / / 28

¹ 14301

² IP65 (EN60529)

³ 2 pins, colour change by swapping polarity

⁴ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)

CM50 30mm Vandalproof Pushbutton

 30mm	 35mm	 35mm	 40.8mm	IP65
		 38.4mm	 40.9mm	IP67

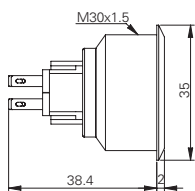
Specification

Termination	Screw or 2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	Single pole: 4N, double pole: 7.5N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Gold plated

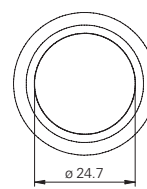
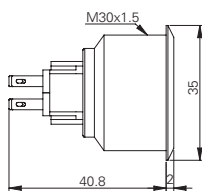
Product Dimensions

All dimensions in mm

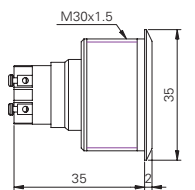
2.8mm Terminals Momentary



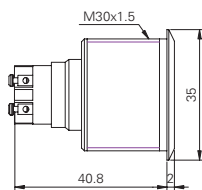
2.8mm Terminals Maintained Front View



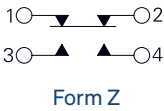
Screw Terminals Momentary



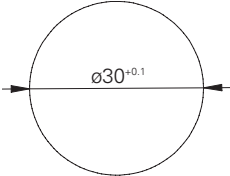
Screw Terminals Maintained



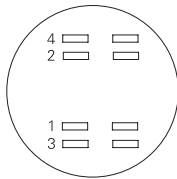
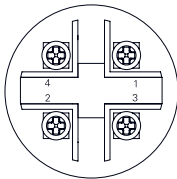
Circuit Diagram



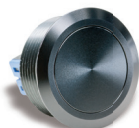
Mounting Dimensions



Contact Arrangement



Ordering Information



Material

V2: Stainless steel¹
AS: Black aluminium

Switch Function

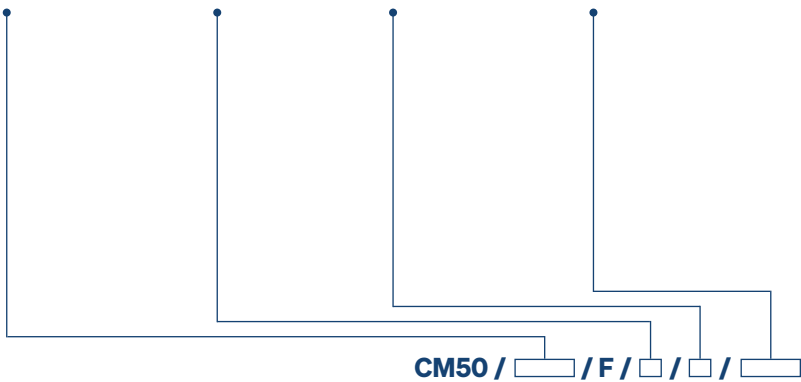
M: Momentary
L: Maintained²

Poles

S: Single
D: Double

Termination

28: 2.8mm tabs
ST: Screws³



¹ 1.4301
² IP65 (EN60529)
³ Only available with single pole

Non rotating button available on request

CMI50 30mm Vandalproof Pushbutton

 30mm	 35mm	 35mm	 40.8mm	IP65	LED
		 38.4mm	 40.9mm	IP67	

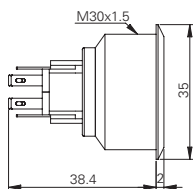
Specification

Termination	Screw or 2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	Single pole: 4N, double pole: 7.5N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	See ordering information
Contact material	Gold plated

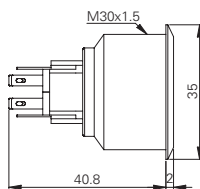
Product Dimensions

All dimensions in mm

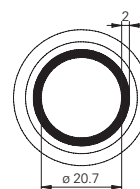
2.8mm Terminals Momentary



2.8mm Terminals Maintained



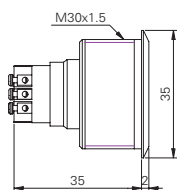
Front View (ring)



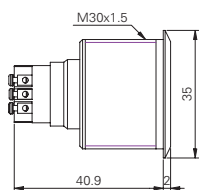
Front View (dot)



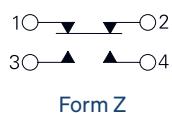
Screw Terminals Momentary



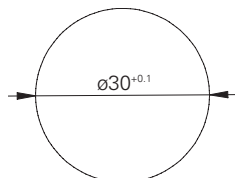
Screw Terminals Maintained



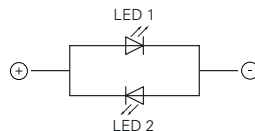
Circuit Diagram



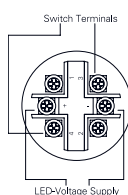
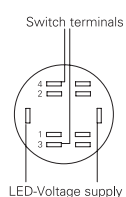
Mounting Dimensions



LED Circuit Diagram



Wiring Instructions



Ordering Information



Material	LED	LED Colour	LED Voltage	Switch Function	Poles	Terminations
V2: Stainless steel ¹ AS: Black aluminium	R: Ring D: Dot	GN: Green RD: Red YL: Yellow BL: Blue WH: White GR: Green/red ³ BR: Blue/red ³ GB: Green/blue ³	00: No resistor ⁴ 06: 6 volt 12: 12 volt 24: 24 volt	M: Momentary L: Maintained ²	S: Single D: Double	28: 2.8mm tabs ST: Screws ⁵
CMI50 / / F / / / / / / 						

¹ 14301

² IP65 (EN60529)

³ 2 pins, colour change by swapping polarity

⁴ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)

⁵ Only available with single pole

Non rotating button available on request

CM51 30mm Vandalproof Pushbutton

 30mm	 35mm	 38.4mm	IP65
		 40.8mm	IP67

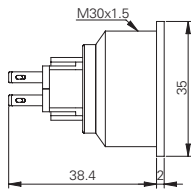
Specification

Termination	2.8x0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	Single pole: 4N, double pole: 7.5N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	Stainless steel 1.4301
Contact material	Gold plated

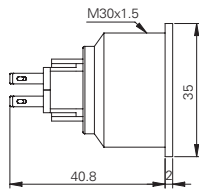
Product Dimensions

All dimensions in mm

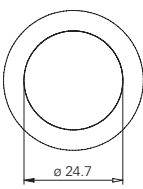
Momentary



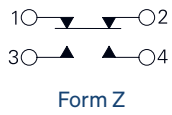
Maintained



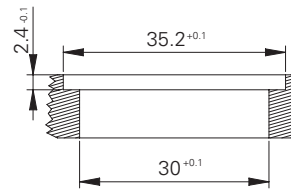
Front View



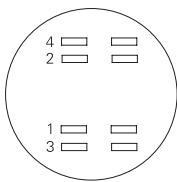
Circuit Diagram



Mounting Dimensions



Contact Arrangement



Ordering Information



Switch Function

M: Momentary
L: Maintained¹

Poles

S: Single
D: Double

CM51 / V2 / F / ☐ / ☐ / 28

¹ IP65 (EN60529)

Non rotating button available on request

CMI51 30mm Vandalproof Pushbutton

 30mm	 35mm	 38.4mm	IP65	LED
		 40.8mm	IP67	

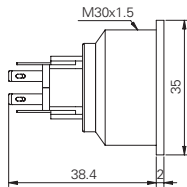
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	Single pole: 4N, double pole: 7.5N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 10.0mm
Body & button material	Stainless steel 1.4301
Contact material	Gold plated

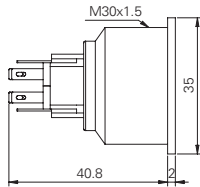
Product Dimensions

All dimensions in mm

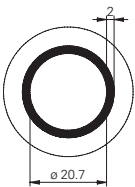
Momentary



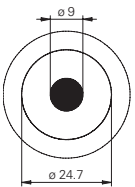
Maintained



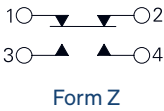
Front View (ring)



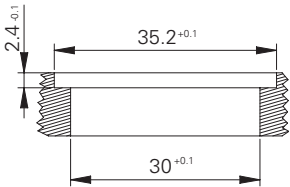
Front View (dot)



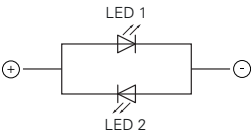
Circuit Diagram



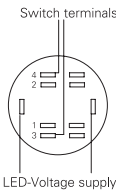
Mounting Dimensions



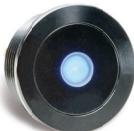
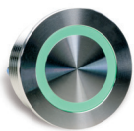
LED Circuit Diagram



Wiring Instructions



Ordering Information



LED
R: Ring
D: Dot

LED Colour
GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
GR: Green/red³
BR: Blue/red³
GB: Green/blue³

LED Voltage
00: No resistor⁴
06: 6 volt
12: 12 volt
24: 24 volt

Switch Function
M: Momentary
L: Maintained²

Poles
S: Single
D: Double

CMI51 / V2 / F / / / / / 28

¹ IP65 (EN60529)
² 2 pins, colour change by swapping polarity
³ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)

Non rotating button available on request



CM60 40mm Vandalproof Pushbutton

40mm	46mm	41.1mm	IP65
			IP67

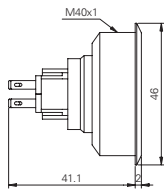
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	Single pole: 4N, double pole: 7.5N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 5.0mm
Body & button material	Stainless steel 1.4301
Contact material	Silver Alloy

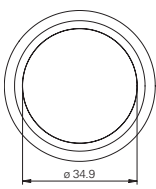
Product Dimensions

All dimensions in mm

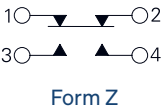
Side View



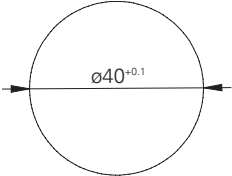
Front View



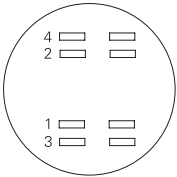
Circuit Diagram



Mounting Dimensions



Contact Arrangement

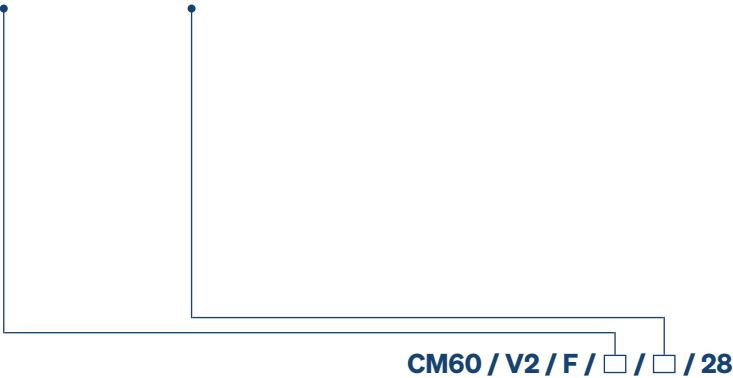


Ordering Information



Switch Function
M: Momentary
L: Maintained

Poles
S: Single
D: Double



Non rotating button available on request



CM160 40mm Vandalproof Pushbutton

 40mm

 46mm

 41.1mm

IP65

LED

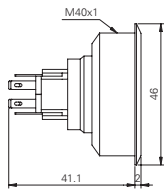
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	5A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529) maintained: IP65
Duty cycle	50,000 (min)
Operating force	Single pole: 4N, double pole: 7.5N
Nut mounting torque	~ 0.6Nm
Panel thickness	1.0mm to 5.0mm
Body & button material	Stainless steel 1.4301
Contact material	Silver Alloy

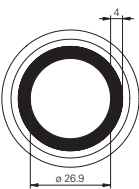
Product Dimensions

All dimensions in mm

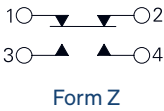
Side View



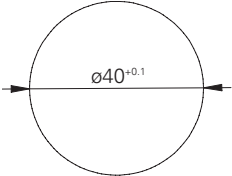
Front View (ring)



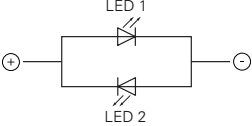
Circuit Diagram



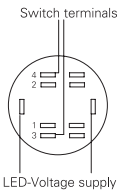
Mounting Dimensions



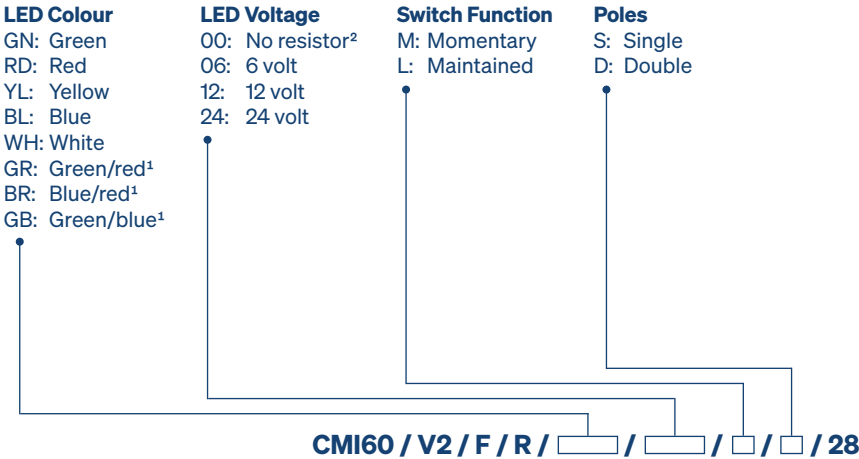
LED Circuit Diagram



Wiring Instructions



Ordering Information



¹ 2 pins, colour change by swapping polarity
² Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)
Non rotating button available on request

CM7X 12mm Vandalproof Pushbutton



IP67

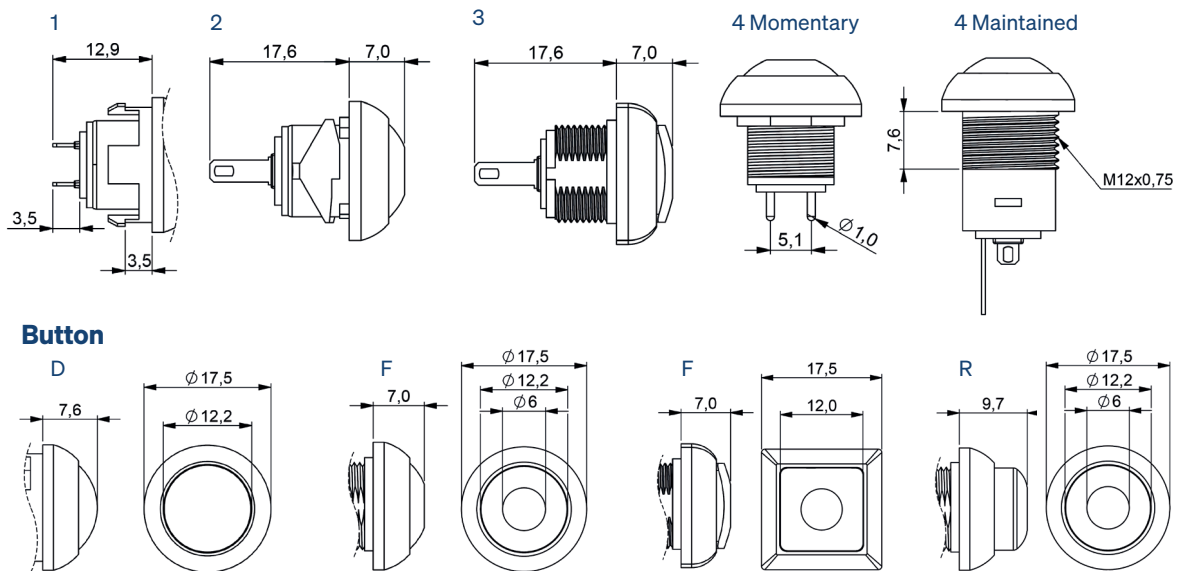
Specification

Termination	See ordering information
Switching function	See ordering information
Configuration of poles	Single
Maximum load	0.4A, 32VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 1,000MΩ
Operating temperature	-30°C to +85°C
Ingress protection	IP67
Duty cycle	500,000 (min)
Operating force	2N~5N
Nut mounting torque	~0.5Nm; metal bushing type: ~1.5Nm
Body & button material	See ordering information
Contact material	brass, gold over silver plated

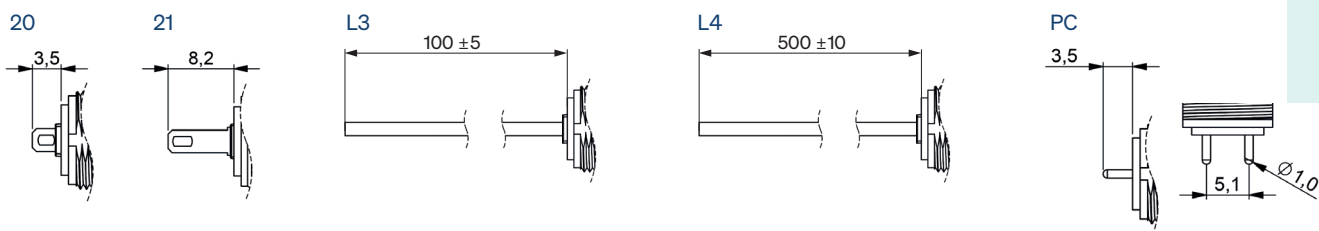
Product Dimensions

All dimensions in mm

Housing

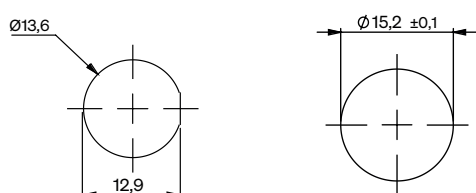


Termination



Mounting Dimensions

only suitable for snap in 2.85mm



Ordering Information

Housing

- 1: snap-in 0.8-1.8mm
- 2: snap-in 2.85mm
- 3: square threaded
- 4: round threaded

Housing Material

- P: Black Plastic
- Z: Black Zink Alloy¹
- C: Chrome Zink Alloy¹
- S: Satin Chrome Zink Alloy¹
- N: Satin Nickel Zink Alloy¹

Cap Colour

- B: Blue
- G: Green
- K: Black
- R: Red
- O: Orange
- W: White
- Y: Yellow

Button

- D: Domed
- F: Flat
- R: Raised

Switch Function

- M: Momentary NO
- N: Momentary NC
- L: Maintained²

Termination

- 20: 2.0mm solder tabs
- 21: 2.0mm solder tabs fast on
- L3: 10cm leads
- L4: 50cm leads
- PC: PC pins

CM7 □ / □ □ / □ / □ / S / □

¹ Only available for Housing 3 and 4

² Only available for Housing 4

CMI7X 12mm Vandalproof Pushbutton



12mm



17,5mm

IP67

LED

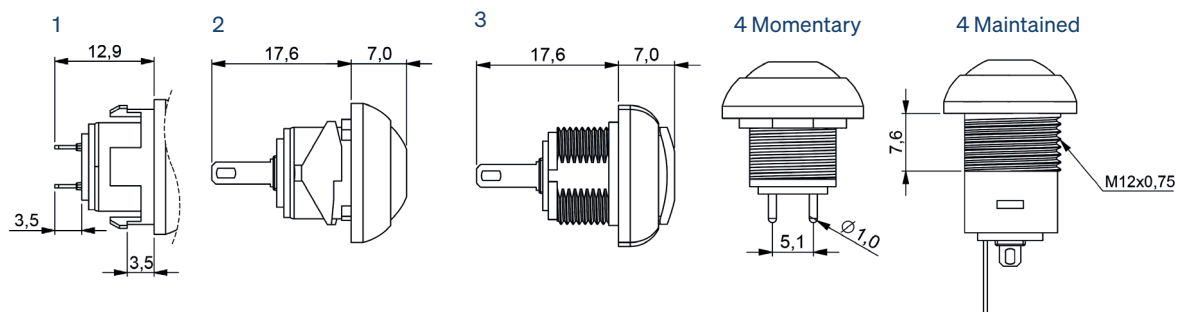
Specification

Termination	See ordering information
Switching function	See ordering information
Configuration of poles	Single
Maximum load	0.4A, 32VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 1,000MΩ
Operating temperature	-30°C to +85°C
Ingress protection	IP67
Duty cycle	500,000 (min)
Operating force	2N~5N
Nut mounting torque	~0.5Nm; metal bushing type: ~1.5Nm
Body & button material	See ordering information
Contact material	brass, gold over silver plated

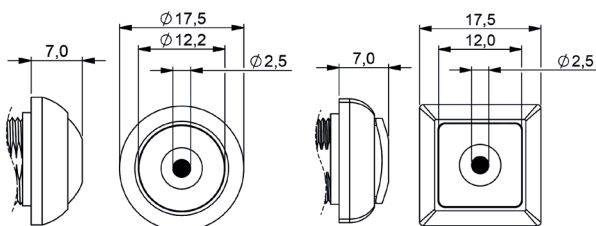
Product Dimensions

All dimensions in mm

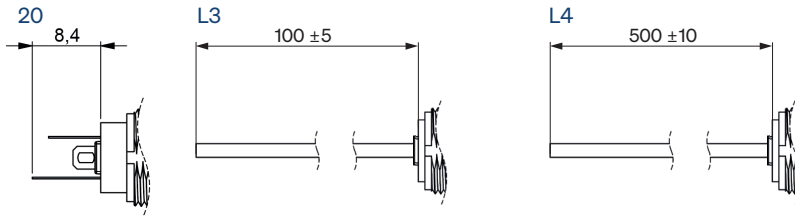
Housing



Button

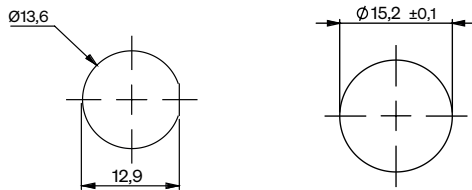


Termination



Mounting Dimensions

only suitable for snap in 2.85mm



Ordering Information

Housing

- 1: snap-in 0.8-1.8mm
- 2: snap-in 2.85mm
- 3: square threaded
- 4: round threaded

Housing Material

- P: Black Plastic
- Z: Black Zink Alloy¹
- C: Chrome Zink Alloy¹
- S: Satin Chrome Zink Alloy¹
- N: Satin Nickel Zink Alloy¹

Cap Colour

- B: Blue
- G: Green
- K: Black
- R: Red
- O: Orange
- W: White
- Y: Yellow

LED Colour

- RD: Red
- GN: Green
- BL: Blue
- WH: White
- YL: Yellow
- RG: Red/Green
- RB: Red/Blue

Switch Function

- M: Momentary NO
- L: Maintained²

Termination

- 20: 2.0mm solder tabs
- L3: 10cm leads
- L4: 50cm leads

CMI7 □ / □ □ / F / D / □ / 03 / □ / S / □

¹ Only available for Housing 3 and 4

² Only available for Housing 4

CM92 16mm Plastic Pushbutton



16mm



19.8mm



18.5mm

IP67

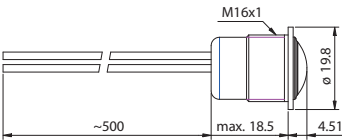
Specification

Termination	15cm flying leads
Switching function	Momentary
Configuration of poles	Single
Maximum load	2A, 24VDC
LED voltage	-
Contact resistance	< 100mΩ
Insulation resistance	> 100MΩ
Operating temperature	-20°C to +65°C
Ingress protection	IP67 (EN 60529)
Duty cycle	10,000 (min)
Operating force	7N
Nut mounting torque	~ 0.8Nm
Panel thickness	1.0mm to 9.0mm
Body & button material	Nylon & PUR
Contact material	-

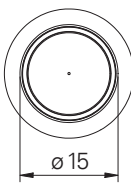
Product Dimensions

All dimensions in mm

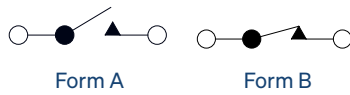
Side View



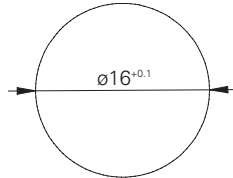
Front View



Circuit Diagram



Mounting Dimensions



Ordering Information



Material

PK: Black plastic
 PG: Green plastic¹
 PR: Red plastic¹
 PY: Yellow plastic¹
 PW: White plastic¹
 PB: Blue plastic¹

Switch Function

M: Momentary NO
 L: Momentary NC

CM92 / / D / / S / L4

¹ Code is only for button material. Housing is made of black plastic



CM90 22mm Plastic Pushbutton

22mm

25mm

37.3mm

IP65

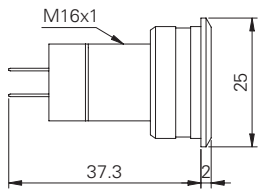
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	1A, 48VAC
LED voltage	-
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	Single pole: 1.5N, double pole: 3N
Nut mounting torque	-
Panel thickness	0.5mm to 6.0mm
Body & button material	PC
Contact material	Silver plated

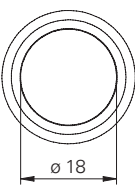
Product Dimensions

All dimensions in mm

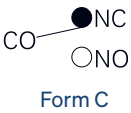
Side View



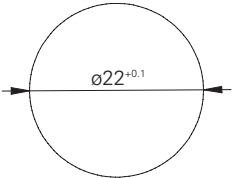
Front View



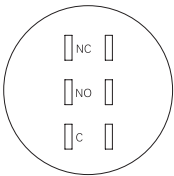
Circuit Diagram



Mounting Dimensions



Contact Arrangement



Ordering Information



Material

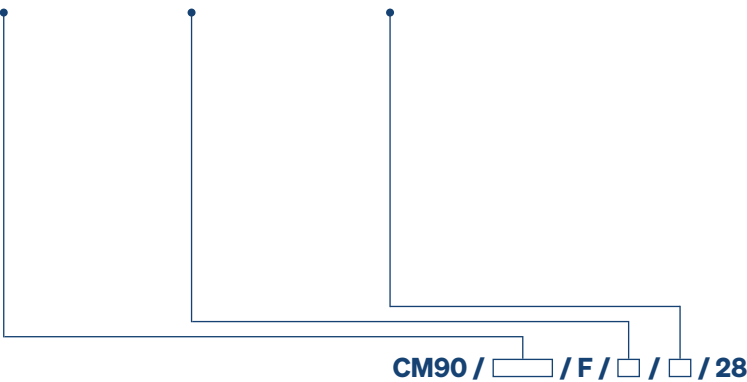
PK: Black plastic
PS: Silver plastic

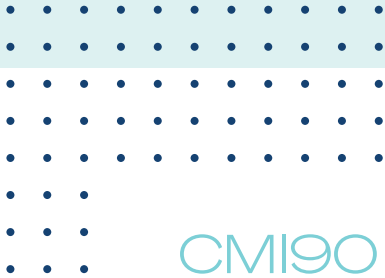
Switch Function

M: Momentary
L: Maintained

Poles

S: Single
D: Double





CM190 22mm Plastic Pushbutton

22mm

25mm

38.5mm

IP65

LED

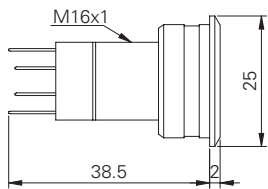
Specification

Termination	2.8×0.5mm fast connect terminals
Switching function	Momentary or maintained
Configuration of poles	Single or double
Maximum load	1A, 48VAC
LED voltage	See ordering information
Contact resistance	< 50mΩ
Insulation resistance	> 100MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP65 (EN 60529)
Duty cycle	50,000 (min)
Operating force	Single pole: 1.5N, double pole: 3N
Nut mounting torque	-
Panel thickness	0.5mm to 6.0mm
Body & button material	PC
Contact material	Silver plated

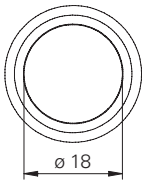
Product Dimensions

All dimensions in mm

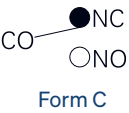
Side View



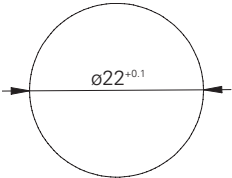
Front View (surface)



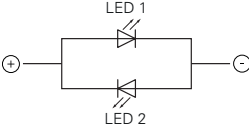
Circuit Diagram



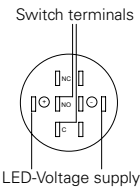
Mounting Dimensions



LED Circuit Diagram



Wiring Instructions



Ordering Information



Material	LED	LED Colour	LED Voltage	Switch Function	Poles
PK: Black plastic PS: Silver plastic	P: Power ¹ F: Surface	GN: Green RD: Red YL: Yellow BL: Blue WH: White GR: Green/red ² BR: Blue/red ² GB: Green/blue ²	00: No resistor ³ 06: 6 volt 12: 12 volt 24: 24 volt	M: Momentary L: Maintained	S: Single D: Double
CMI90 / / F / / / / / 28					

¹ Only available with silver plastic
² 2 pins, colour change by swapping polarity
³ Red, yellow: 1.8V | Green, blue, white: 2.8V (15mA)



EPO3 16mm Piezo Switch

 16mm

 20mm

 10mm

IP68



IP69K

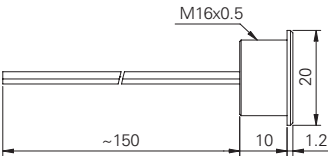
Specification

Termination	15cm flying leads
Switching function	Momentary
Configuration of poles	Single
Maximum load	100mA, 35VDC
LED voltage	-
Contact resistance	100mΩ
Insulation resistance	> 10 ⁹ Ω
Operating temperature	-40°C to +85°C
Ingress protection	IP66, IP68 (EN 60529); IP69K (DIN 4050)
Duty cycle	1,000,000 (min)
Operating force	< 3N
Nut mounting torque	~ 2.5Nm
Panel thickness	0.5mm to 8.0mm
Body & button material	See ordering information
Contact material	-

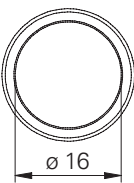
Product Dimensions

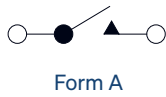
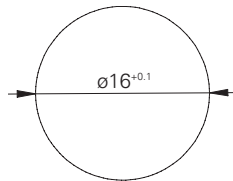
All dimensions in mm

Finger Guided



Front View



Circuit Diagram**Mounting Dimensions****Ordering Information****Material**

AN: Natural anodised aluminium
 AR: Red anodised aluminium
 AB: Blue anodised aluminium
 AY: Yellow anodised aluminium
 AG: Green anodised aluminium
 AS: Black anodised aluminium

Switch Function

M: Momentary NO
 N: Momentary NC

EP03 / / G / / S / L1



EPIO3 16mm Illuminated Piezo Switch

 16mm

 20mm

 10mm

IP68

LED



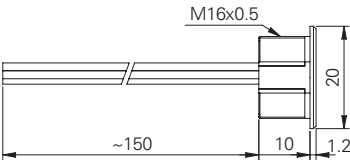
Specification

Termination	15cm flying leads
Switching function	Momentary
Configuration of poles	Single
Maximum load	100mA, 35VDC
LED voltage	Red & yellow: 1.9V, Green & blue: 3.4V, White: 3.6V (20mA)
Contact resistance	100mΩ
Insulation resistance	> 10 ⁹ Ω
Operating temperature	-40°C to +50°C
Ingress protection	IP68 (EN 60529)
Duty cycle	1,000,000 (min)
Operating force	< 5N
Nut mounting torque	~ 2.5Nm
Panel thickness	0.5mm to 8.0mm
Body & button material	See ordering information
Contact material	-

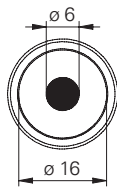
Product Dimensions

All dimensions in mm

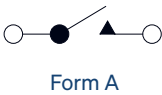
Finger Guided



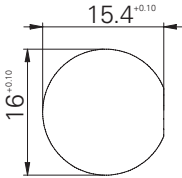
Front View



Circuit Diagram



Mounting Dimensions



Wiring Instructions

- Switch wire
- Switch wire
- Ground wire for LED
- LED colour wire for +LED

Ordering Information



Material

- AN: Natural anodised aluminium
- AR: Red anodised aluminium
- AB: Blue anodised aluminium
- AY: Yellow anodised aluminium
- AG: Green anodised aluminium
- AS: Black anodised aluminium

LED Colour

- GN: Green
- RD: Red
- YL: Yellow
- BL: Blue
- WH: White
- GR: Green/red
- BR: Blue/red
- GB: Green/blue
- BW: Blue/white

EPI03 / / G / D / / 00 / M / S / L1



NKO3 16mm thiNKswitch™

 16mm

 20mm

 10mm

IP68



IP69K

Specification

Termination	15cm flying leads
Switching function	Momentary or toggle
Configuration of poles	Single
Maximum load	2.5A, 8VDC to 24VDC
LED voltage	-
"On" resistance	100mΩ
Insulation resistance	> 10 ⁹ Ω
Operating temperature	-40°C to +85°C
Ingress protection	IP66, IP68 (EN 60529); IP69K (DIN 4050)
Duty cycle	1,000,000 (min)
Operating force	< 5N
Nut mounting torque	~ 2.5Nm
Panel thickness	0.5mm to 8.0mm
Body & button material	See ordering information
Impulse time	0.5 sec (momentary)

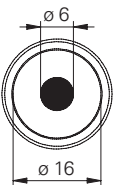
Product Dimensions

All dimensions in mm

Finger Guided

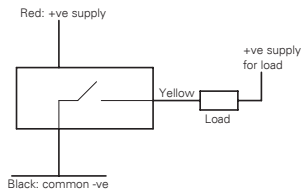


Front View

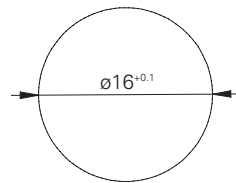


Circuit Diagram

Common ground (NMOS)

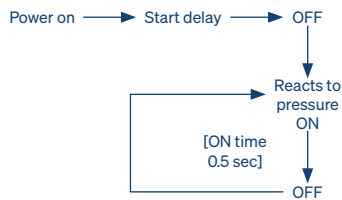


Mounting Dimensions

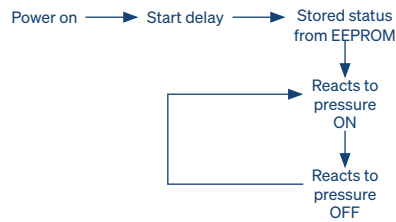


Timing Diagram

Momentary



Toggle



Ordering Information



Material

AN: Natural anodised aluminium
 AR: Red anodised aluminium
 AB: Blue anodised aluminium
 AY: Yellow anodised aluminium
 AG: Green anodised aluminium
 AS: Black anodised aluminium

Switch Function

M: Momentary
 T: Toggle

NK03 / / G / / S / L1

EPO6 19mm Piezo Switch

 19mm

 21.5mm

 10mm

IP68



IP69K

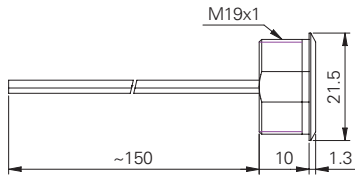
Specification

Termination	15cm flying leads
Switching function	Momentary
Configuration of poles	Single
Maximum load	100mA, 35VDC
LED voltage	-
"On" resistance	100mΩ
Insulation resistance	> 10 ⁹ Ω
Operating temperature	-40°C to +85°C
Ingress protection	IP66, IP68 (EN 60529); IP69K (DIN 4050)
Duty cycle	1,000,000 (min)
Operating force	< 3N
Nut mounting torque	~ 2.5Nm
Panel thickness	0.5mm to 8.0mm
Body & button material	See ordering information
Impulse time	-

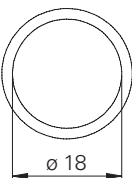
Product Dimensions

All dimensions in mm

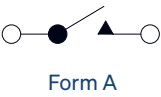
Side View



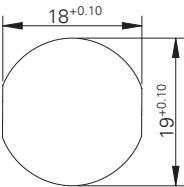
Front View



Circuit Diagram



Mounting Dimensions



Ordering Information



Material
V2: Stainless steel¹
BC: Chrome plated brass

EP06 / / F / M / S / L1

¹ 14307

NKO2 19mm thiNKswitch™

 19mm

 21.5mm

 10mm

IP68

IP69K



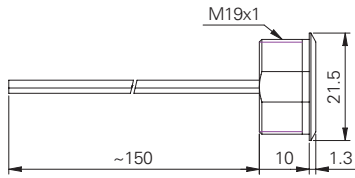
Specification

Termination	15cm flying leads
Switching function	Momentary or toggle
Configuration of poles	Single
Maximum load	2.5A, 8VDC to 24VDC
LED voltage	-
"On" resistance	100mΩ
Insulation resistance	> 10 ⁹ Ω
Operating temperature	-40°C to +85°C
Ingress protection	IP66, IP68 (EN 60529); IP69K (DIN 4050)
Duty cycle	1,000,000 (min)
Operating force	< 3N
Nut mounting torque	~ 2.5Nm
Panel thickness	0.5mm to 4.0mm
Body & button material	See ordering information
Impulse time	0.5 sec (momentary)

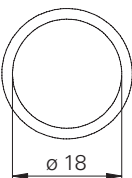
Product Dimensions

All dimensions in mm

Side View

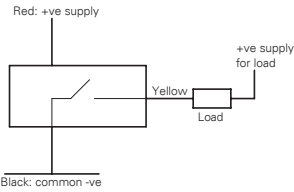


Front View

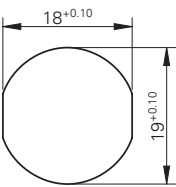


Circuit Diagram

Common ground (NMOS)

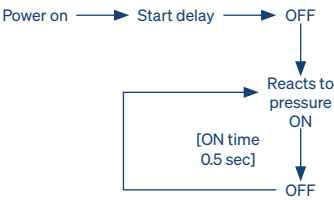


Mounting Dimensions

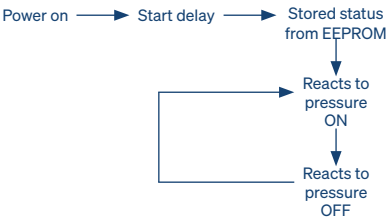


Timing Diagram

Momentary



Toggle



Ordering Information



Material

V2: Stainless steel¹
BC: Brass chrome

Switch Function

M: Momentary
T: Toggle

NK02 / / F / / S / L1

¹ 14307



EP7O 20mm Piezo Module

 20mm

 20mm

 9mm

IP68

IP69K

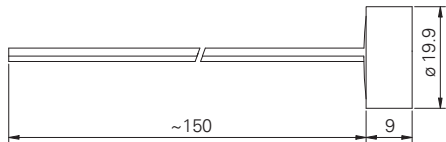
Specification

Termination	15cm flying leads
Switching function	Momentary
Configuration of poles	Single
Maximum load	100mA, 35VDC
LED voltage	-
"On" resistance	100mΩ
Insulation resistance	> 10 ⁹ Ω
Operating temperature	-40°C to +85°C
Ingress protection	IP66, IP68 (EN 60529); IP69K (DIN 4050)
Duty cycle	1,000,000 (min)
Operating force	< 7N (depends on material and current)
Nut mounting torque	-
Panel thickness	Min. 3.0mm
Supported panel material	Plastics, metals, glas (for advanced users)
Body	POM black

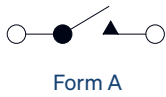
Product Dimensions

All dimensions in mm

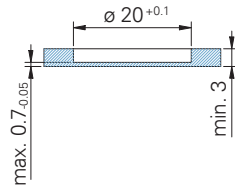
Side View



Circuit Diagram



Mounting Dimensions



Timing Instructions

The EP70 Piezo Module is glued into a recessed hole on the back of panel or housing by applying LOCTITE 435 or LOCTITE 480 on the centre pin and rim. Detailed instructions are available on request.

Ordering Information



Part Number
EP70/PK/F/M/S/L1

EP15 22mm Piezo Switch

 22mm	 26mm	 17.8mm	IP68	
	 25mm	 19.7mm	IP69K	

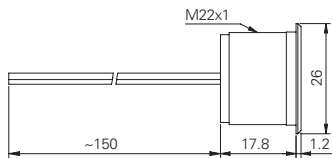
Specification

Termination	15cm flying leads
Switching function	Momentary
Configuration of poles	Single
Maximum load	100mA, 35VDC
LED voltage	-
"On" resistance	100mΩ
Insulation resistance	> 10 ⁹ Ω
Operating temperature	-40°C to +85°C
Ingress protection	IP66, IP68 (EN 60529); IP69K (DIN 4050)
Duty cycle	1,000,000 (min)
Operating force	< 3N
Nut mounting torque	~ 2.5Nm
Panel thickness	0.5mm to 13.0mm
Body & button material	See ordering information
Impulse time	-

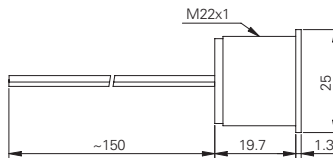
Product Dimensions

All dimensions in mm

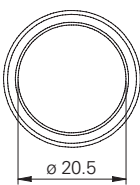
Finger Guided

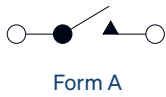
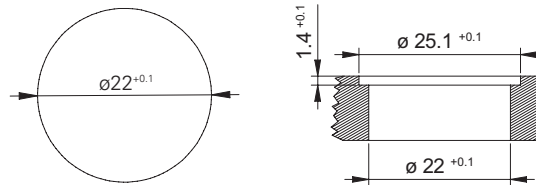


Flat



Front View (guided)



Circuit Diagram**Mounting Dimensions****Ordering Information****Material**

AN: Natural anodised aluminium
 AR: Red anodised aluminium
 AB: Blue anodised aluminium
 AY: Yellow anodised aluminium
 AG: Green anodised aluminium
 AS: Black anodised aluminium
 V2: Stainless steel

Head Style

F: Flat
 G: Finger guided

EP15 / / / M / S / L1

NK15 22mm thiNKswitch™

 22mm	 26mm	 17.8mm	IP68	
	 28mm	 19.7mm	IP69K	

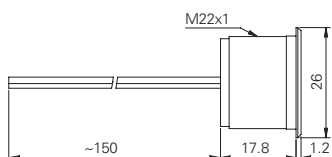
Specification

Termination	15cm flying leads
Switching function	Momentary or toggle
Configuration of poles	Single
Maximum load	2.5A, 8VDC to 24VDC
LED voltage	-
"On" resistance	100mΩ
Insulation resistance	> 10 ⁹ Ω
Operating temperature	-40°C to +85°C
Ingress protection	IP66, IP68 (EN 60529); IP69K (DIN 4050)
Duty cycle	1,000,000 (min)
Operating force	< 3N
Nut mounting torque	~ 2.5Nm
Panel thickness	0.5mm to 13.0mm
Body & button material	See ordering information
Impulse time	0.5 sec (momentary)

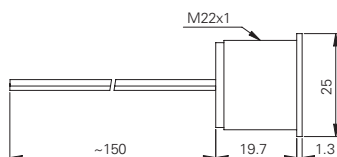
Product Dimensions

All dimensions in mm

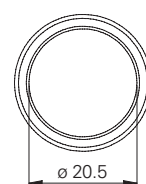
Finger Guided



Flat

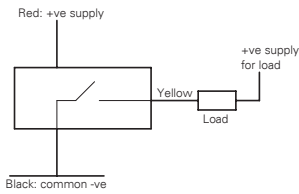


Front View (guided)

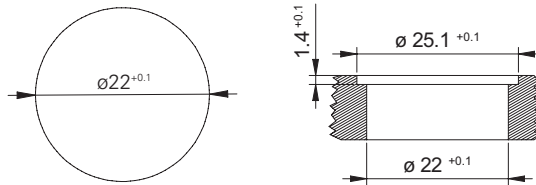


Circuit Diagram

Common ground (NMOS)

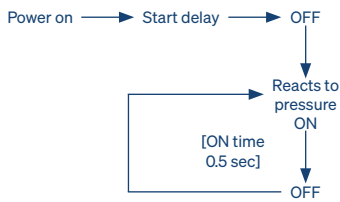


Mounting Dimensions

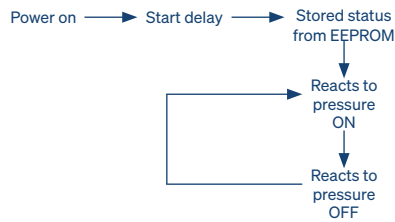


Timing Diagram

Momentary



Toggle



Ordering Information



Material

AN: Natural anodised aluminium
AR: Red anodised aluminium
AB: Blue anodised aluminium
AY: Yellow anodised aluminium
AG: Green anodised aluminium
AS: Black anodised aluminium
BC: Chrome plated brass
V2: Stainless steel¹

Head Style

F: Flat
G: Guided

Switch Function

M: Momentary
T: Toggle

NK15 / / / S / L1

¹ 14305

EPI16 22mm Illuminated Piezo Switch

 22mm	 26mm	 10.5mm	IP68	LED	
	 28mm	 14mm			

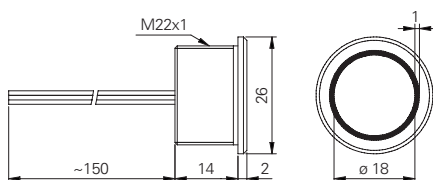
Specification

Termination	15cm flying leads
Switching function	Momentary
Configuration of poles	Single
Maximum load	100mA, 35VDC
LED voltage	See ordering information
Contact resistance	100mΩ
Insulation resistance	> 10 ⁹ Ω
Operating temperature	-40°C to +50°C
Ingress protection	IP68 (EN 60529)
Duty cycle	1,000,000 (min)
Operating force	< 5N
Nut mounting torque	~ 2.5Nm
Panel thickness	0.5mm to 13.0mm
Body & button material	See ordering information
ESD resistance	15kV to front of switch

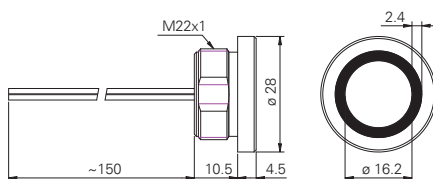
Product Dimensions

All dimensions in mm

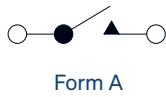
Flat



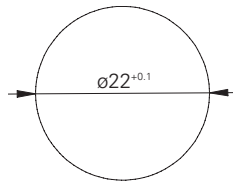
Raised



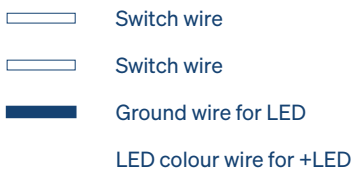
Circuit Diagram



Mounting Dimensions



Wiring Instructions



Ordering Information



Material

AN: Natural anodised aluminium
 AR: Red anodised aluminium
 AB: Blue anodised aluminium
 AY: Yellow anodised aluminium
 AG: Green anodised aluminium
 AS: Black aluminium
 V2: Stainless steel¹
 V4: Stainless steel²
 V5: Stainless steel³

Head Style

F: Flat
 R: Raised

LED Colour

GN: Green
 RD: Red
 YL: Yellow
 BL: Blue
 WH: White
 GR: Green/red³
 BR: Blue/red³
 GB: Green/blue³
 BW: Blue/white
 10: RGB^{4,6}

LED Voltage

R1: 5-12 volt⁵
 R3: 12-24 volt⁶

EPI16 / / / R / / / M / S / L1

¹ 1.4305

² 1.4404

³ 1.4462

⁴ Only available with 12-24 volt (R3)

⁵ Only available with flat head

⁶ Only available with raised head

NKI16 22mm Illuminated thiNKswitch™



22mm



26mm



10.5mm



14mm

IP68

LED



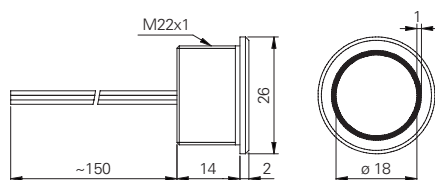
Specification

Termination	15cm flying leads
Switching function	Momentary or toggle
Configuration of poles	Single
Maximum load	2.5A, 8VDC to 24VDC
LED voltage	See ordering information
"ON" resistance	100mΩ
Insulation resistance	> 10 ⁹ Ω
Operating temperature	-40°C to +50°C
Ingress protection	IP68 (EN 60529)
Duty cycle	1,000,000 (min)
Operating force	< 5N
Nut mounting torque	~ 2.5Nm
Panel thickness	0.5mm to 13.0mm
Body & button material	See ordering information
ESD resistance	15kV to front of switch
Impulse time	0.5 sec (momentary)

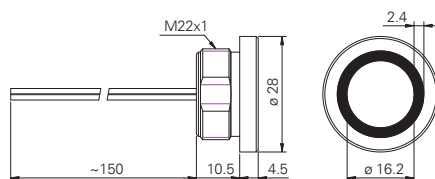
Product Dimensions

All dimensions in mm

Flat

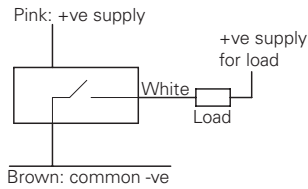


Raised

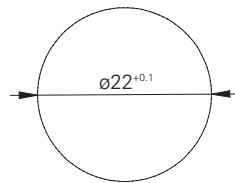


Circuit Diagram

Common ground (NMOS)



Mounting Dimensions



Wiring Instructions

Switch: See circuit diagram

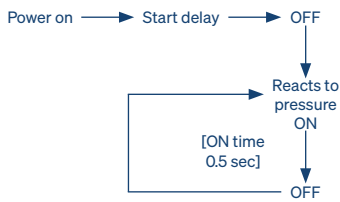


Ground wire for LED

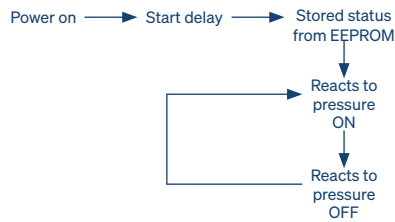
LED colour wire for +LED

Timing Diagram

Momentary



Toggle



Ordering Information



Material

AN: Natural anodised aluminium
AR: Red anodised aluminium
AB: Blue anodised aluminium
AY: Yellow anodised aluminium
AG: Green anodised aluminium
AS: Black aluminium
V2: Stainless steel¹
V4: Stainless steel²
V5: Stainless steel³

Head Style

F: Flat
G: Raised

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
GR: Green/red
BR: Blue/red
GB: Green/blue
BW: Blue/white

LED Voltage

00: No resistor⁴
05: 5 volt
12: 12 volt
24: 24 volt

Switch Function

M: Momentary
T: Toggle

NK16 / [Material] / [Head Style] / [LED Colour] / [LED Voltage] / [Switch Function] / S / L1

¹ 1.4305

² 1.4404

³ 1.4462

⁴ Red, yellow: 1.9V | Green, blue: 3.4V | White: 3.6V (20mA)



EPI50 30mm Illuminated Piezo Switch

 30mm

 33.5mm

 17.5mm

IP68

LED



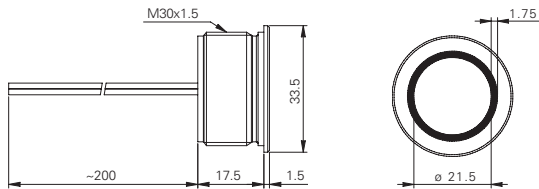
Specification

Termination	20cm flying leads
Switching function	Momentary
Configuration of poles	Single
Maximum load	100mA, 35VDC, 24VAC
LED voltage	See ordering information
Contact resistance	100mΩ
Insulation resistance	> 10 ⁹ Ω
Operating temperature	-40°C to +50°C
Ingress protection	IP68 (EN 60529)
Duty cycle	1,000,000 (min)
Operating force	< 5N
Nut mounting torque	~ 2.5Nm
Panel thickness	0.5mm to 13.0mm
Body & button material	See ordering information
ESD resistance	-

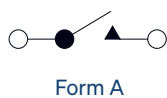
Product Dimensions

All dimensions in mm

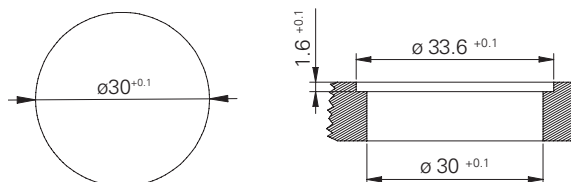
Flat



Circuit Diagram



Mounting Dimensions



Wiring Instructions

-  Switch wire
-  Switch wire
-  Ground wire for LED
-  LED colour wire for +LED

Ordering Information



Material

AN: Natural anodised aluminium
 AR: Red anodised aluminium
 AB: Blue anodised aluminium
 AY: Yellow anodised aluminium
 AG: Green anodised aluminium
 AS: Black anodised aluminium
 V2: Stainless steel¹
 V4: Stainless steel²

LED Colour

GN: Green
 RD: Red
 YL: Yellow
 BL: Blue
 WH: White
 GR: Green/red
 BR: Blue/red
 GB: Green/blue
 BW: Blue/white

LED Voltage

00: No resistor
 12: 12 volt
 24: 24 volt

EPI50 / / F / R / / / M / S / L2

¹ 14305

² 14404



NKI50 30mm Illuminated thiNKswitch™

30mm

33.5mm

17.5mm

IP68

LED

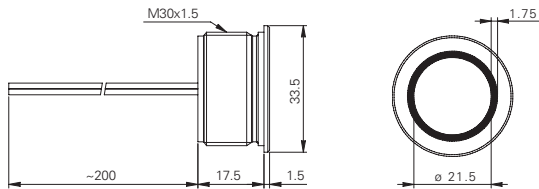
Specification

Termination	20cm flying leads
Switching function	Momentary or toggle
Configuration of poles	Single
Maximum load	2.5A, 8VDC to 24VDC
LED voltage	24 volt DC
"ON" resistance	100mΩ
Insulation resistance	> 10 ⁹ Ω
Operating temperature	-40°C to +50°C
Ingress protection	IP68 (EN 60529)
Duty cycle	1,000,000 (min)
Operating force	< 5N
Nut mounting torque	~ 2.5Nm
Panel thickness	0.5mm to 13.0mm
Body & button material	See ordering information
Impulse time	0.5 sec (momentary)

Product Dimensions

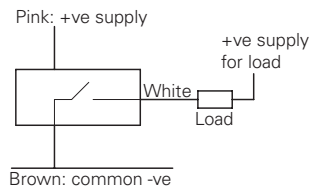
All dimensions in mm

Flat

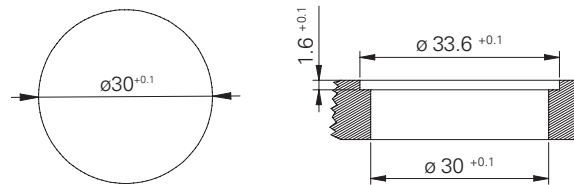


Circuit Diagram

Common ground (NMOS)

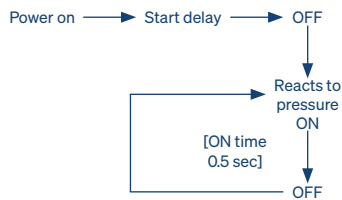


Mounting Dimensions

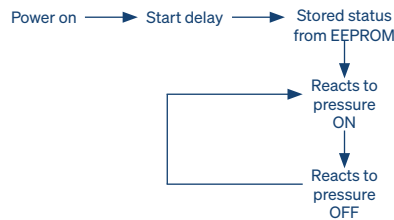


Timing Diagram

Momentary



Toggle



Wiring Instructions

-  Switch: See circuit diagram
-  Ground wire for LED
-  LED colour wire for +LED

Ordering Information



Material

AN: Natural anodised aluminium
AR: Red anodised aluminium
AB: Blue anodised aluminium
AY: Yellow anodised aluminium
AG: Green anodised aluminium
AS: Black anodised aluminium
V2: Stainless steel¹
V4: Stainless steel²

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
GR: Green/red
BR: Blue/red
GB: Green/blue
BW: Blue/white

Switch Function

M: Momentary
T: Toggle

NKI50 / / F / R / / 24 / / S / L1

¹ 14305

² 14404

CKI21 19mm Illuminated Capacitive Switch

 19mm

 22mm

 32mm

IP68

LED

IP69K

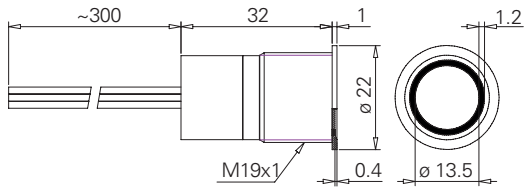
Specification

Termination	30cm flying leads
Switching function	Momentary or maintained
Configuration of poles	Single
Maximum load	500mA, 24VDC
LED voltage	See ordering information
Contact resistance	200mΩ
Insulation resistance	600VDC 10MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529), IP69K (DIN 4050)
Duty cycle	50,000,000 (min)
Operating force	ON
Nut mounting torque	~ 0.8Nm
Panel thickness	0.5mm to 8.0mm
Body & button material	Stainless steel 1.4301
Can be triggered by water	

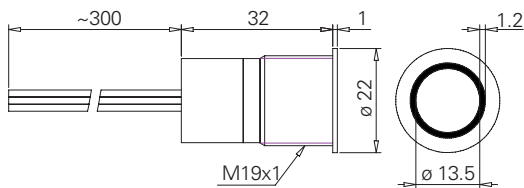
Product Dimensions

All dimensions in mm

Finger Guided

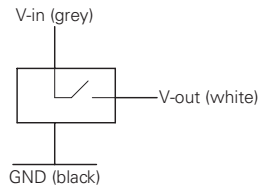


Flat

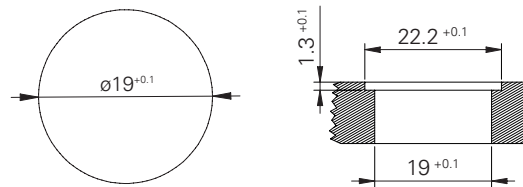


Circuit Diagram

Common plus (PMOS)



Mounting Dimensions



Wiring Instructions

Switch: See circuit diagram

— LED wire +²

— LED wire -²

For versions with 3 & 4 LED wires there is one wire per colour (+) and a black wire as common cathode^{4,5}

Ordering Information



Head Style

F: Flat
G: Finger guided

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
BG: Blue/green³
BR: Blue/red³
BW: Blue/white³
RG: Red/green³
RB: Red/blue³
GB: Green/blue³
GR: Green/red³
WB: White/blue³
NB: Off/blue
NG: Off/green
NR: Off/red
NW: Off/white
NY: Off/yellow
O1: Green/red⁴
O2: Green/blue⁴
O3: Blue/red⁴
O4: Blue/white⁴
11: RGB⁵

LED Voltage

00: No resistor¹
05: 5 volt
12: 12 volt
24: 24 volt

Switch Function

M: Momentary
L: Maintained
1: Momentary switched LED³
2: Maintained switched LED³

CKI21 / V2 / / R / / / S / L3

¹ Green, yellow: 1.8V | Red, blue, white: 2.8V (20mA)

² LED wires are only present by unswitched LED versions

³ First colour is active when the switch is not pressed.

Second colour is active when switch is pressed.

⁴ 3 wires for LED connection (one per colour and common cathode (common anode available on request))

⁵ Red/green/blue, 4 wires for LED connection (one per colour and common cathode (common anode available on request))



CKI35 22mm Illuminated Capacitive Switch

 **22mm**

 **25mm**

 **32mm**

IP68
IP69K

LED



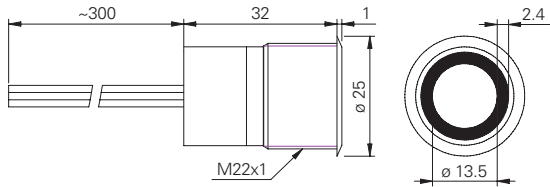
Specification

Termination	30cm flying leads
Switching function	Momentary or maintained
Configuration of poles	Single
Maximum load	500mA, 24VDC
LED voltage	See ordering information
Contact resistance	200mΩ
Insulation resistance	600VDC 10MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529), IP69K (DIN 4050)
Duty cycle	50,000,000 (min)
Operating force	ON
Nut mounting torque	~ 0.8Nm
Panel thickness	0.5mm to 8.0mm
Body & button material	Stainless steel 1.4301
Can be triggered by water	

Product Dimensions

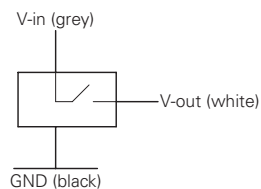
All dimensions in mm

Flat

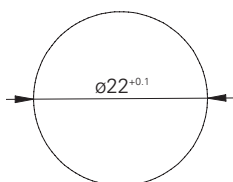


Circuit Diagram

Common plus (PMOS)



Mounting Dimensions



Wiring Instructions

Switch: See circuit diagram

— LED wire +²

— LED wire -²

For versions with 3 & 4 LED wires there is one wire per colour (+) and a black wire as common cathode^{4,5}

Ordering Information



LED Colour

GN: Green	WB: White/blue ³
RD: Red	NB: Off/blue
YL: Yellow	NG: Off/green
BL: Blue	NR: Off/red
WH: White	NW: Off/white
BG: Blue/green ³	NY: Off/yellow
BR: Blue/red ³	01: Green/red ⁴
BW: Blue/white ³	02: Green/blue ⁴
RG: Red/green ³	03: Blue/red ⁴
RB: Red/blue ³	04: Blue/white ⁴
GB: Green/blue ³	11: RGB ⁵
GR: Green/red ³	

LED Voltage

00: No resistor ¹
05: 5 volt
12: 12 volt
24: 24 volt

Switch Function

M: Momentary
L: Maintained
1: Momentary switched LED ³
2: Maintained switched LED ³

CKI35 / V2 / F / R / / / / S / L3

¹ Green, yellow: 1.8V | Red, blue, white: 2.8V (20mA)

² LED wires are only present by unswitched LED versions

³ First colour is active when the switch is not pressed.

Second colour is active when switch is pressed.

⁴ 3 wires for LED connection (one per colour and common cathode (common anode available on request))

⁵ Red/green/blue, 4 wires for LED connection (one per colour and common cathode (common anode available on request))

CKI36 22mm Illuminated Capacitive Switch

 22mm

 25mm

 32mm

IP68
IP69K

LED



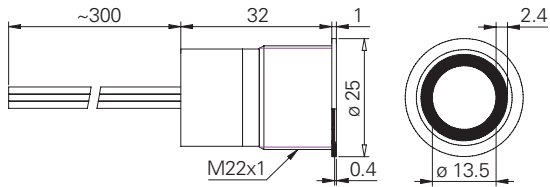
Specification

Termination	30cm flying leads
Switching function	Momentary or maintained
Configuration of poles	Single
Maximum load	500mA, 24VDC
LED voltage	See ordering information
Contact resistance	200mΩ
Insulation resistance	600VDC 10MΩ
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529), IP69K (DIN 4050)
Duty cycle	50,000,000 (min)
Operating force	ON
Nut mounting torque	~ 0.8Nm
Panel thickness	0.5mm to 8.0mm
Body & button material	Stainless steel 1.4301
Can be triggered by water	

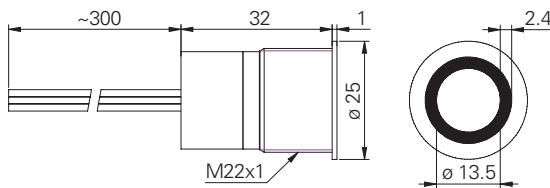
Product Dimensions

All dimensions in mm

Finger Guided

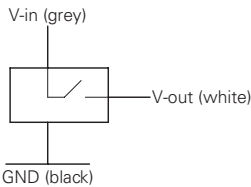


Flat

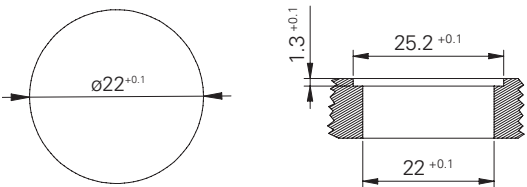


Circuit Diagram

Common plus (PMOS)



Mounting Dimensions



Wiring Instructions

Switch: See circuit diagram

- LED wire +²
- LED wire -²

For versions with 3 & 4 LED wires there is one wire per colour (+) and a black wire as common cathode^{4,5}

Ordering Information



Head Style	LED Colour	LED Voltage	Switch Function
F: Flat	GN: Green	00: No resistor ¹	M: Momentary
G: Finger guided	RD: Red	05: 5 volt	L: Maintained
	YL: Yellow	12: 12 volt	1: Momentary switched LED ³
	BL: Blue	24: 24 volt	2: Maintained switched LED ³
	WH: White		
	BG: Blue/green ³		
	BR: Blue/red ³		
	BW: Blue/white ³		
	RG: Red/green ³		
	RB: Red/blue ³		
	GB: Green/blue ³		
	GR: Green/red ³		
	WB: White/blue ³		
	NB: Off/blue		
	NG: Off/green		
	NR: Off/red		
	NW: Off/white		
	NY: Off/yellow		
	O1: Green/red ⁴		
	O2: Green/blue ⁴		
	O3: Blue/red ⁴		
	O4: Blue/white ⁴		
	11: RGB ⁵		

CKI36 / V2 / ☐ / R / ☐ / ☐ / ☐ / S / L3

¹ Green, yellow: 1.8V | Red, blue, white: 2.8V (20mA)
² LED wires are only present by unswitched LED versions
³ First colour is active when the switch is not pressed.
Second colour is active when switch is pressed.
⁴ 3 wires for LED connection (one per colour and common cathode (common anode available on request))
⁵ Red/green/blue, 4 wires for LED connection (one per colour and common cathode (common anode available on request))



EPK10 3x4 Piezo Keypad

3x4

4.5mm

6.3mm

(IP68)

Specification

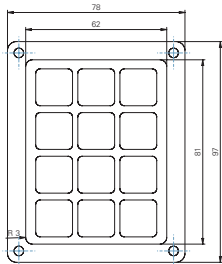
Termination	See ordering information
Switching function	Momentary
Configuration of poles	Single
Maximum load	200mA, 35VDC
Contact resistance ON	< 7.5Ω
Operating temperature	-40°C to +85°C
Ingress protection	IP68 (EN 60529) with additional gasket
Duty cycle	1,000,000 (min)
Operating force	< 5N
Body material	See ordering information

Product Dimensions

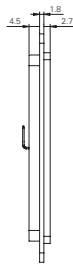
All dimensions in mm

Rear Panel Mount Vertical

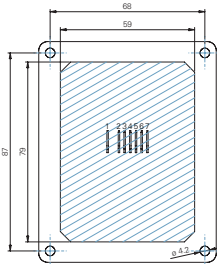
Front View



Side View

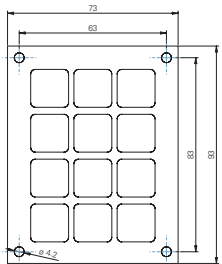


Rear View



Front Panel Mount Vertical

Front View



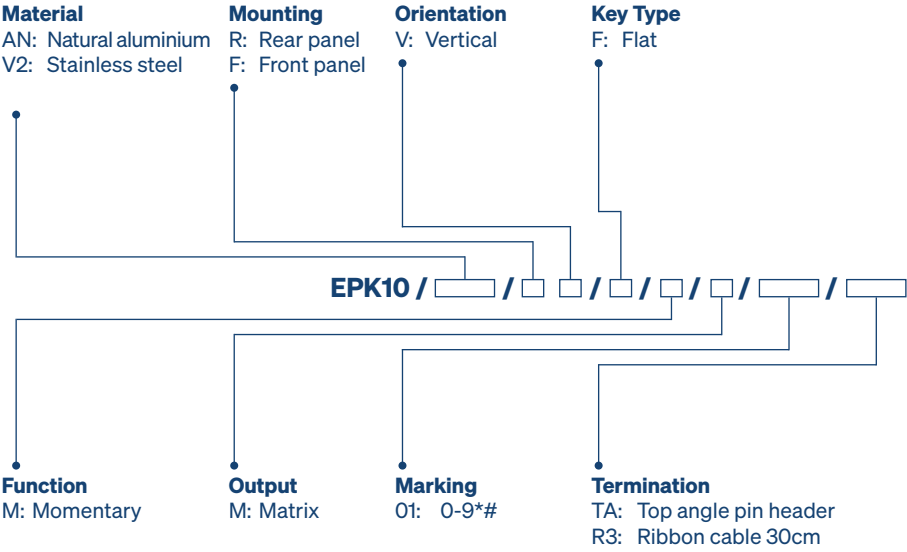
Side View



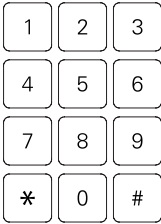
Pin Layout

		Pin number						
Button		1	2	3	4	5	6	7
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	*							
	0							
	#							

Ordering Information



Standard Marking Options



01: 0-9*#

EPK15 4x4 Piezo Keypad

4x4

4.5mm

6.3mm

(IP68)

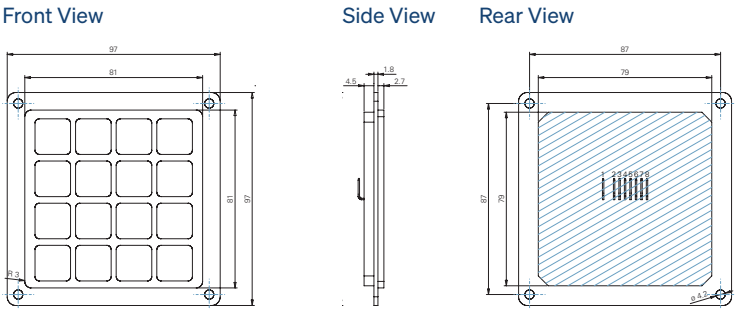
Specification

Termination	See ordering information
Switching function	Momentary
Configuration of poles	Single
Maximum load	200mA, 35VDC
Contact resistance ON	< 7.5Ω
Operating temperature	-40°C to +85°C
Ingress protection	IP69K (EN 4050) with additional gasket
Duty cycle	1,000,000 (min)
Operating force	< 5N
Body material	See ordering information

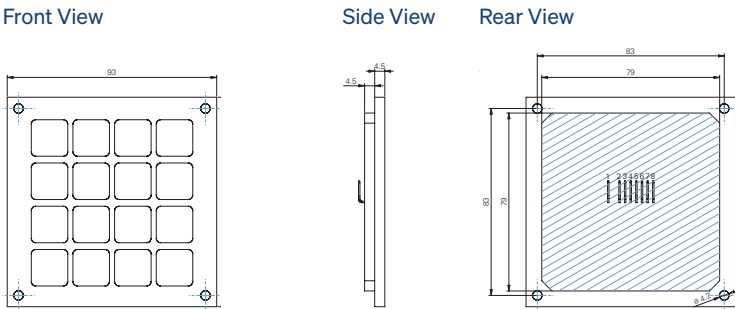
Product Dimensions

All dimensions in mm

Rear Panel Mount Vertical



Front Panel Mount Vertical



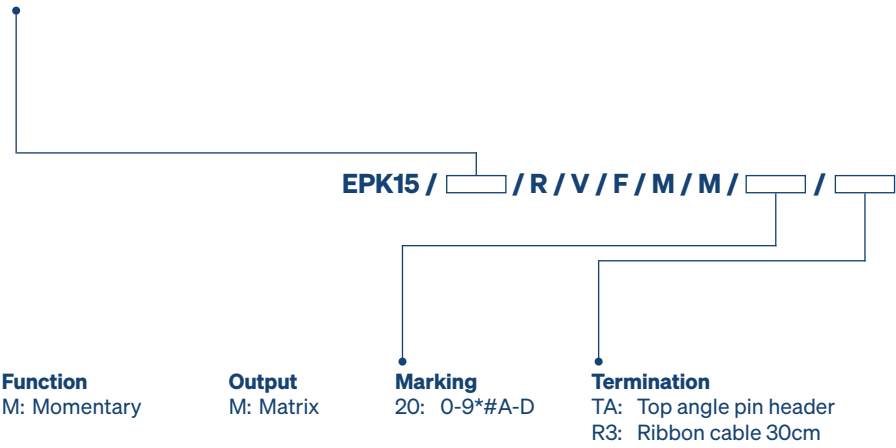
Pin Layout

		Pin number							
Button		1	2	3	4	5	6	7	8
	1								
	2								
	3								
	A								
	4								
	5								
	6								
	B								
	7								
	8								
	9								
	C								
	*								
	0								
	#								
	D								

Ordering Information



Material	Mounting	Orientation	Key Type
AN: Natural aluminium V2: Stainless steel	R: Rear panel	V: Vertical	F: Flat



Standard Marking Options

1	2	3	A
4	5	6	B
7	8	9	C
*	0	#	D

20: 0-9*#A-D



CIO4 8mm Vandalproof LED

 8mm

 11mm

 26mm

 IP67

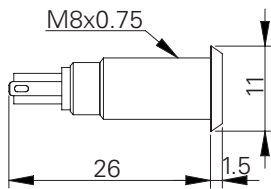
Specification

Termination	1.8×0.4mm fast connect terminals
LED voltage	See ordering information
Rated current	20mA
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Nut mounting torque	About 0.1Nm
Panel thickness	6.0mm (max)
Body material	See ordering information

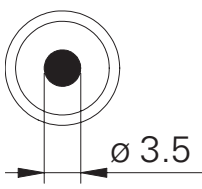
Product Dimensions

All dimensions in mm

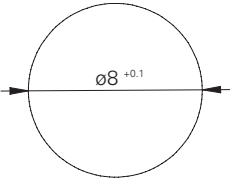
Side View



Front View



Mounting Dimensions



Ordering Information



Material
V2: Stainless steel¹
BN: Nickel plated brass

LED Colour
GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
GR: Green/red
BR: Blue/red
GB: Green/blue

LED Voltage
00: No resistor²
06: 6 volt
12: 12 volt
24: 24 volt

CI04 / / P / D / / / 18

¹ 1.4301
² Green, yellow: 1.8V | Red, blue, white: 2.8V (20mA)



C105 8mm Vandalproof LED

 8mm

 9.5mm

 39mm

IP67

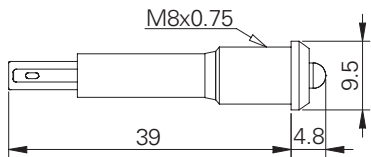
Specification

Termination	2.8×0.5mm fast connect terminals
LED voltage	See ordering information
Rated current	20mA
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Nut mounting torque	About 0.1Nm
Panel thickness	6.0mm (max)
Body material	See ordering information

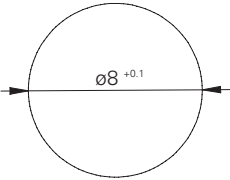
Product Dimensions

All dimensions in mm

Side View



Mounting Dimensions



Ordering Information

Material	LED Colour	LED Voltage
V2: Stainless steel	GN: Green	06: 6 volt
MB: Black plated brass	RD: Red	12: 12 volt
BN: Nickel plated brass	YL: Yellow	24: 24 volt
	BL: Blue	
	WH: White	
	GR: Green/red	
	BR: Blue/red	
	GB: Green/blue	

CI05 / / D / D / / / 28



C108 12mm Vandalproof LED

 12mm

 15mm

 27.4mm

IP67

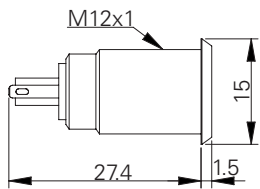
Specification

Termination	1.8×0.4mm fast connect terminals
LED voltage	See ordering information
Rated current	2mA to 20mA
Operating temperature	-25°C to +55°C
Ingress protection	IP67 (EN 60529)
Nut mounting torque	About 0.1Nm
Panel thickness	10.0mm (max)
Body material	See ordering information

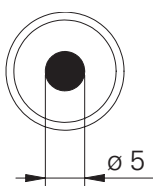
Product Dimensions

All dimensions in mm

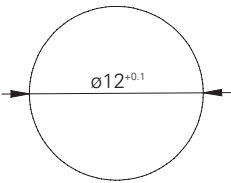
Side View



Front View



Mounting Dimensions



Ordering Information



Material

V2: Stainless steel¹
BN: Nickel plated brass

LED Colour

GN: Green
RD: Red
YL: Yellow
BL: Blue
WH: White
GR: Green/red
BR: Blue/red
GB: Green/blue

LED Voltage

00: No resistor²
06: 6 volt
12: 12 volt
24: 24 volt

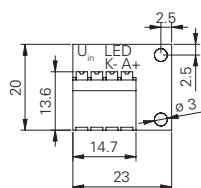
CI08 / / P / D / / / 18

¹ 1.4301
² Green, yellow: 1.8V | Red, blue, white: 2.8V (20mA)

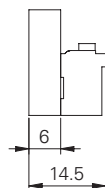
Specification

Product Dimensions

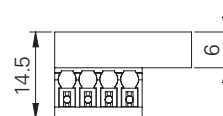
Front View



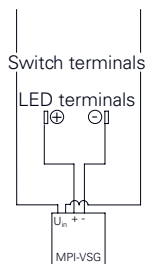
Side View



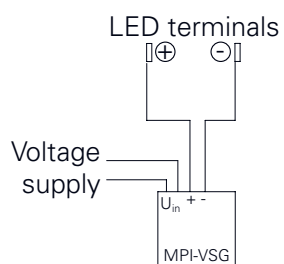
Top View



Connection Diagram for 4-Wire Systems



Connection Diagram for 2-Wire Systems



Ordering Information



AC Wiring Accessories

Ordering Information



Switch Type	For Series	Poles	Terminations
I: Illuminated ¹ N: Non-illuminated	15: CM15/16 & CMI15/16 25: CM25/26 & CMI25/26 30: CM30/31 & CMI30/31 35: CM35/36 & CMI35/36 40: CM(I)40/41/45/	S: Single D: Double	L1: 15cm leads L2: 20cm leads ² L3: 30cm leads ² PC: PC pins SC: Solder contacts

AC [] / [] / [] / []

¹ Only available for single colour switches
² Only available for series (code) 35 & 40



Customized Products

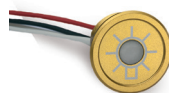
Customized Switches



1. Printed lit symbols



2. Lasered lit symbols



3. Laser engraving



7. Printed symbols



4. Custom colour



5. Surface illumination



6. Rear sealing

Custom Development



1. Snap-in piezo switch



2. Custom piezo switch



3. Custom pushbutton



4. Underwater piezo panel



5. Door pushbutton



6. Chrome switch panel



7. Snap-in pushbutton



8. Pool piezo panel



Engelking Elektronik GmbH

Albstraße 16
D-78609 Tuningen

Tel.: +49 (0)7464 9865 0
Fax: +49 (0)7464 9865 71
E-Mail: info@engelking.de

www.engelking.de