



## Control Stations Ex e, Glass-Fiber Reinforced Polyester (GRP)

### GR.CS\*

- Carbon loaded, antistatic glass-fiber reinforced polyester
- Installation in Zone 1, Zone 2, Zone 21 and Zone 22
- Ex de, Ex ib and Ex tb certified
- Up to 68 operators per control station
- 7 enclosure size options
- Customizable configuration of operators, cable entry quantities and cable gland types as per specification
- Wide range of labels and accessories available
- Modern design with high impact resistance
- Easy installation due to easily accessible mounting points
- Wide ambient temperature range

## Control Stations Ex e, Glass-Fiber Reinforced Polyester (GRP)



### Function

The GR.CS\* series is a purposely designed range of control stations that can be equipped with operators, contact blocks, terminals and entry devices to meet your exact specification. Pepperl+Fuchs solution engineering teams provide any custom configurations including combinations of terminals and control elements.

The standardized GR\* enclosure series for all Pepperl+Fuchs products consists of carbon-loaded, glass-fiber reinforced polyester with stainless steel cover screws. This series provides an anti-static, UV stabilized and corrosion resistant solution. Many features provide for easy installation and handling.

### Technical Data

Electrical specifications	
Operating voltage	400 V AC max.
Operating current	16 A max.
Terminal capacity	2.5 mm <sup>2</sup>
Terminal torque	0.8 Nm
Mechanical specifications	
Enclosure cover	fully detachable
Cover fixing	see data table
Screws	stainless steel combination Phillips and slotted screw
Cover seal	foamed silicone
Degree of protection	IP66
Cable entry	cable glands as per specification
Material	
Enclosure	carbon loaded, antistatic glass-fiber reinforced polyester (GRP)
Finish	inherent color black
Grounding plate	2 mm brass optional
Mass	see data table valid for empty enclosure, will increase according to integrated components
Dimensions	see data table
Mounting	see data table
Grounding	none as standard optional M6 or M8 internal/external brass nickel-plated grounding bolt optional M6 or M8 internal/external stainless steel grounding bolt
Ambient conditions	
Ambient temperature	-40 ... 55 °C (-40 ... 131 °F) optional -50 ... 55 °C (-58 ... 131 °F) depending on integrated components

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## Technical Data

### Data for application in connection with hazardous areas

EU-type examination certificate	CML 16 ATEX 3009X
Marking	Ex II 2 GD Ex db eb mb IIC T* Gb Ex ib IIC T* Gb Ex db eb ib mb op pr IIC T* Gb Ex eb op pr IIC T* Gb Ex tb IIIC T** °C Db T6/T80 °C @ Ta +40 °C T5/T95 °C @ Ta +55 °C T4/T130 °C @ Ta +55 °C
<b>International approvals</b>	
IECEx approval	IECEx CML 16.0008X
UKCA approval	CML 22 UKEX 2550X
ECAS approval	22-10-53256/E22-09-052316/NB0002
IA approval	MASC S/18-0003X
CCC approval	2020322304002545
<b>Conformity</b>	
Degree of protection	EN 60529
CE marking	0102
<b>General information</b>	
Ordering information	This device will be delivered completely configured and assembled ready for use. For configuration details please contact Customer Service.
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .
<b>Accessories</b>	
Optional accessories	M6 or M8 internal/external brass nickel-plated grounding bolts M6 or M8 internal/external stainless steel grounding bolts grounding plate, brass Grounding Rail hinges, polyamide mounting block for DIN mounting rail, polyamide engraved traffolyte tag label engraved AISI 316L stainless steel tag label color in-fill stainless steel tag label
<b>Indicators/operating means</b>	
Control elements	small footprint max. 68 see data table all NC contacts have a direct opening action for emergency stop functions

## Type Code

1	2	3	4	5	6	7	8
GR	***	**	**	**	*	-	****
GR	CSE	18	24	10	B	S	0001

Example: GR.CSE.18.24.10.B-S0001

Control Station increased safety, material GRP, size 18x24x10 cm, landscape orientation with face B at bottom, standard product

<b>1</b>	<b>Enclosure type</b>
GR	glass faser reinforced polyester (GRP)
<b>2</b>	<b>Type of solution</b>
CSE	control station (Ex e)
CSI	control station (Ex i)
CSM	control station, various types of explosion protection, e.g. (Ex e, Ex i) or (Ex e, Ex op pr)
<b>3</b>	<b>Height [cm]</b>
n	see dimensions data table
<b>4</b>	<b>Width [cm]</b>
n	see dimensions data table
<b>5</b>	<b>Depth [cm]</b>
n	see dimensions data table

## Type Code

6	Cable entry face orientation
B	face [B] at bottom
D	face [D] at bottom

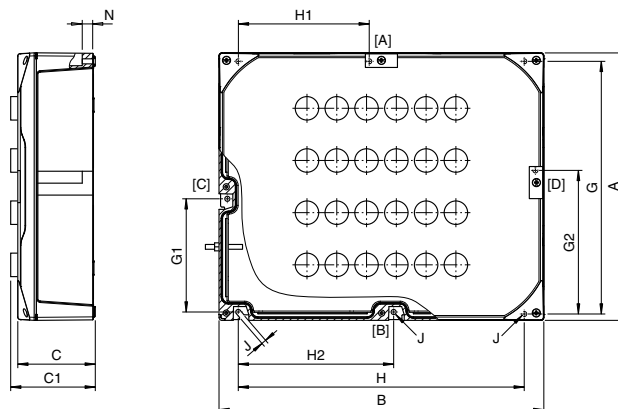
  

7	Variant
S	standard product
C	configured product
CA	configured and adapted product
Y	engineered product

8	Variant number
xxxx	consecutive item number

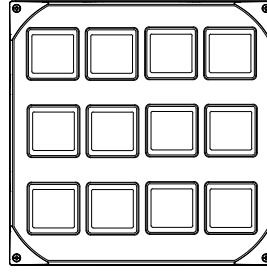
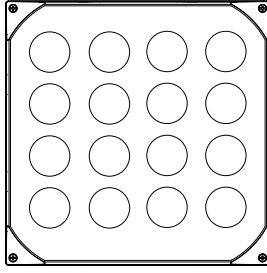
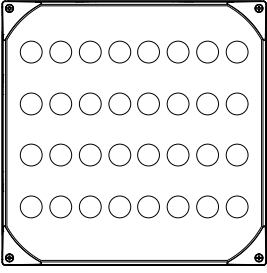
## Dimensions and Enclosure Details




Type	External dimensions [mm]										Mounting screws qty.	Mass approx. [kg]	Cover screws		
	A	B	C	C1 max.	G	H	H1	H2	J	N			Mx	qty.	Torque [Nm]
GR.CS*.18.24.10	179	239	104	169	156	186	-	-	7	18	2	1.7	M6	4	3.5
GR.CS*.18.36.17	179	359	166.5	231.5	156	306	-	-	7	18	4	3.1	M6	4	3.5
GR.CS*.36.36.17	359	359	166.5	231.5	306	336	-	-	7	18	4	4.6	M6	4	3.5

Type	Control elements quantity max.		
	small footprint	large footprint	viewing windows
GR.CS*.18.24.10	8	4	2
GR.CS*.18.36.17	14	6	4
GR.CS*.36.36.17	32	16	12


**Operating Elements Configuration**



## Pushbuttons and Emergency Stops

Pushbuttons Actuator Heads			
Type	Color	Labeling	Image
			
CFP.PR	red	0	
			
CFP.PD	red	OFF	
			
CFP.PG	green	I	
			
CFP.PF	green	START	
			
CFP.PY	yellow	none	
			
CFP.PW	white	none	
			
CFP.PJ	blue	RESET	
			
CFP.PL	black	0	
			
CFP.PP	black	II	
			
CFP.PT	black	IV	
			
CFP.PV	black	arrow down	
			

## Actuator Heads - Technical Data









Mechanical specifications	
Dimensions	see data table
Mounting	use with base-mounted and lid-mounted contact modules
Degree of protection	IP66
Mass	see data table
Material	
Housing	Polyamide (PA)
Finish	inherent color black
Washer gasket	silicone
Ambient conditions	
Ambient temperature	-40 ... 55 °C (-40 ... 131 °F)
Service temperature	-40 ... 65 °C (-40 ... 149 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	 II 2 GD Ex e IIC Gb Ex tb IIIC Db
International approvals	
IECEX approval	IECEX CML 16.0114U
Conformity	
Degree of protection	EN 60529
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .
Enclosure type	LC*, LR* FXL*.CS, SR.CS* GR.CS*

## Pushbuttons and Emergency Stops

### Emergency Stops Actuator Heads

Type	Function	Color	Labeling	Operator action	Actuator head diameter	Switching diagram	Image
							
CFP.E5	mushroom button	red	none	latching, twist to release	55 mm		
							

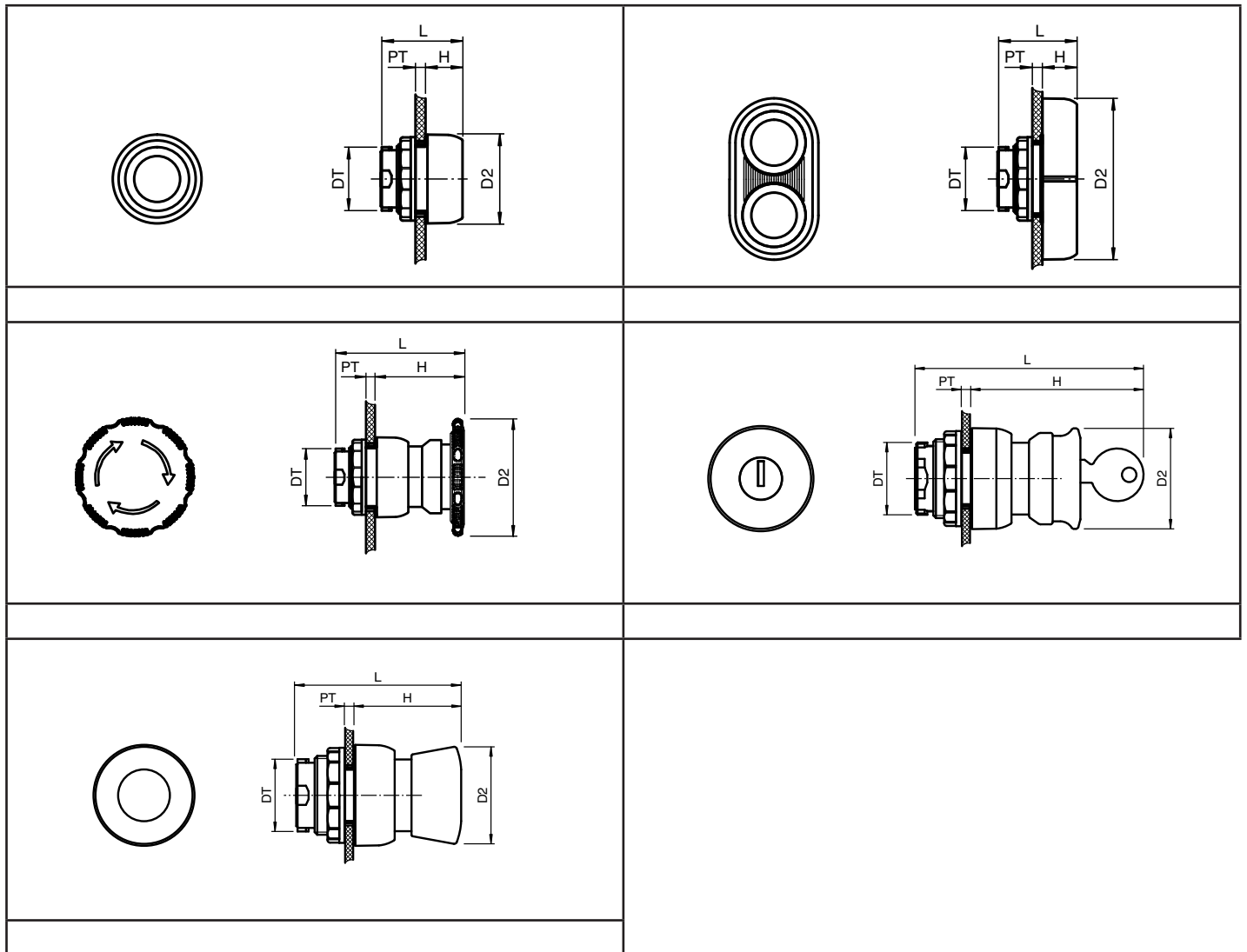
### Other Pushbuttons Actuator Heads

Type	Function	Color	Labeling	Operator action	Actuator head diameter	Switching diagram	Image
							
CFP.MK	mushroom button	black	none	spring return	39 mm		
							
CFP.MG	mushroom button	green	none	spring return	39 mm		

**Pushbuttons and Emergency Stops**

**Pushbuttons and Emergency Stops - Dimensions**





Type	Function	Actuator head diameter [mm]	Panel wall thickness [mm]	Diameter thru-hole [mm]	Length outside enclosure [mm]	Total length [mm]	Mass [g]
		D2	PT	DT	H	L	
CFP.DM*	double pushbutton	70 x 39	1 ... 6	30.6	15.5	35.4	38
CFP.E5	emergency stop	55	1 ... 6	30.6	41.8	62.1	58
CFP.M*	mushroom button	37	1 ... 6	30.6	41.2	60.7	46



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## Pushbuttons and Emergency Stops

### Contact Blocks

Type	Mounting	Number of poles	Contact configuration	Switching diagram see overview	Image
CFPC	base-mounted	2	2x NC	  	

### Contact Blocks - Technical Data

#### Electrical specifications

Operating voltage	250 V max.
Operating current	16 A max.
Terminal capacity	2.5 mm <sup>2</sup>
Terminal torque	0.8 Nm
Usage category	AC12: 12 ... 250 V AC - 16 A AC15: 12 ... 250 V AC - 10 A DC13: 12 ... 110 V DC - 1 A DC13: 12 ... 24 V DC - 1 A

#### Mechanical specifications

Mechanical life	1000000 switching operations
Degree of protection	IP20

#### Material

Housing	Polyamide (PA)
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#### Ambient conditions

Service temperature	-40 ... 90 °C (-40 ... 194 °F)
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#### Data for application in connection with hazardous areas

EU-Type Examination Certificate	CML 16 ATEX 3339U
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Marking	 II 2 G Ex de IIC Gb
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### Contact Blocks - Technical Data continued

#### International approvals

IECEx approval	IECEx CML 16.0114U
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#### Conformity

Degree of protection	EN 60529
Usage category	IEC / EN 60947
CE marking	0102

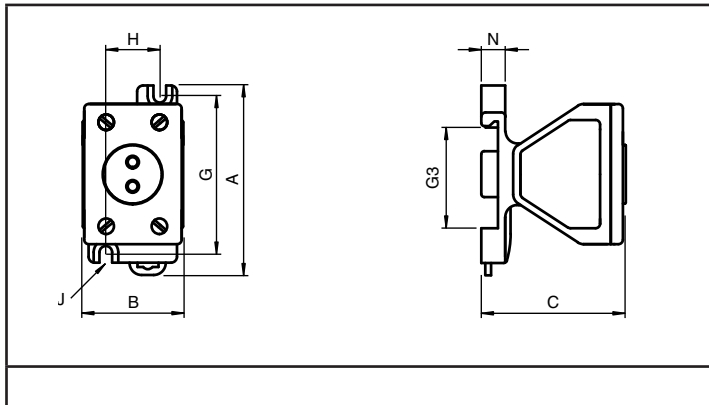
#### General information

Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .
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**Pushbuttons and Emergency Stops**






**Contact Blocks - Dimensions**

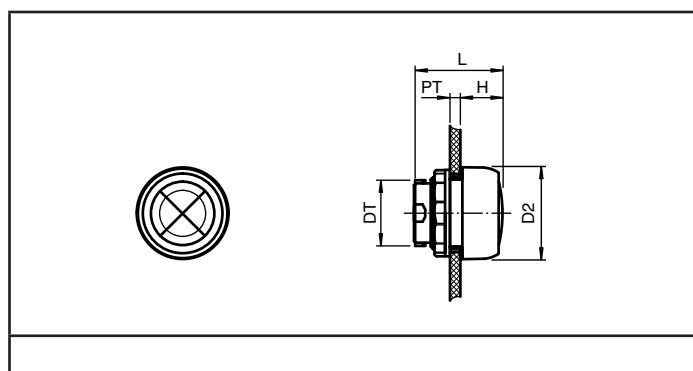
Mounting	External dimension [mm]			Mounting holes [mm]			Mounting brackets [mm]	DIN mounting rail receptacle [mm]	Mass [g]	Enclosure type
	A	B	C	G	H	Diam. J	N	G3		




## Illuminated Pushbuttons

## Illuminated Pushbuttons Actuator Heads

Type	Lens color	Operator action	Switching diagram	Image
			E-----	
CFP.IG	green	spring return	E-----	
			E-----	
CFP.IW	white	spring return	E-----	
			E-----	



## Actuator Heads - Technical Data




Mechanical specifications	
Degree of protection	IP66
Material	
Housing	Polyamide (PA)
Finish	inherent color black
Washer gasket	silicone
Ambient conditions	
Ambient temperature	-40 ... 55 °C (-40 ... 131 °F)
Service temperature	-40 ... 65 °C (-40 ... 149 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	 II 2 GD Ex e IIC Gb Ex tb IIIC Db
International approvals	
IECEX approval	IECEX CML 16.0114U
Conformity	
Degree of protection	EN 60529
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

## Illuminated Pushbuttons Actuator Heads - Dimensions

Actuator head diameter [mm]	Panel wall thickness [mm]	Diameter thru-hole [mm]	Length outside enclosure [mm]	Total length [mm]	Mass [g]	Mounting	Enclosure type
D2	PT	DT	H	L			

## Illuminated Pushbuttons

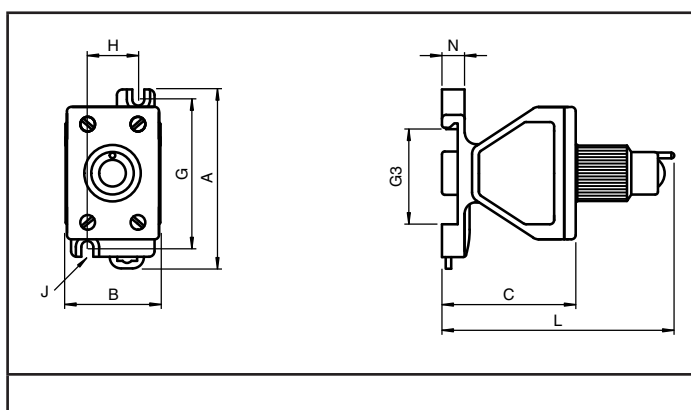
## LED Contact Modules

Type	Mounting	Operating voltage [V]	Number of poles	Contact configuration	Switching diagram	Image
CFP.I	base-mounted	30 ... 250 V AC	1	1x NO		
CFP.JL	base-mounted	10 ... 28 V AC/DC	1	1x NC		
CFP.JI	base-mounted	10 ... 28 V AC/DC Ex ia	1	1x NC		

## Illuminated Pushbuttons

## LED Contact Modules - Dimensions

Mounting	External dimension [mm]				Mounting holes [mm]			Mounting brackets [mm]	DIN rail receptacle [mm]	Mass [g]	Enclosure type
	A	B	C	L	G	H	Diam. J	N	G3		



## LED Modules - Technical Data

Electrical specifications	
Operating current	10 A max.
Terminal capacity	2.5 mm <sup>2</sup>
Usage category	AC15: 10 ... 250 V AC - 10 A DC13: 10 ... 24 V DC - 1 A
Mechanical life	1000000 switching operations
Material	
Ambient conditions	
Data for application in connection with hazardous areas	
Marking	Ex II 2 G Ex de IIC Gb
Marking	Ex II 1 G Ex ia IIC Ga
Current I <sub>i</sub>	93 mA
Internal capacitance C <sub>i</sub>	0 μF
International approvals	
Conformity	
Usage category	IEC / EN 60947-3





























## LED Modules - Technical Data

## General information

## Supplementary information

EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

## Control Switches Actuator Heads, for use with GR.CS\* and SR.CS\*

Control Switch Actuator Heads								
Type	Function	Diameter [mm]	Switching configuration	Switching diagram	Operator action	Labeling	Lockable	Image
								
CFP.N7	rotary actuator	39	2 position changeover		L - L	I - II	-	
								
CFP.N8S	rotary actuator	39	3 position changeover with center OFF		S - L - S	I - 0 - II	-	
								
CFP.S6	rotary actuator	60	2 position changeover with left OFF		L - L	0 - I	yes	
								
CFP.S8	rotary actuator	60	3 position changeover with center OFF		L - L - L	I - 0 - II	yes	
								
CFP.S9	rotary actuator	60	3 position changeover with left OFF		L - L - L	0 - I - II	yes	
								
CFP.K6S	key switch rotary actuator	39	2 position changeover with left OFF		L - S	0 - I	yes	
								
CFP.K8S	key switch rotary actuator	39	3 position changeover with center OFF		S - L - S	I - 0 - II	yes	



**Control Switches, 2 Pole Contact Blocks, for use with GR.CS\* and SR.CS\*****Combination of 2 Pole Contact Blocks and Actuator Heads**

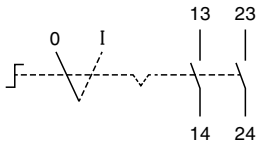
Actuator head function	Actuator head diameter [mm]	Switching configuration	Contact block	Contacts	Switching diagram see overview	Operator action	Labeling	Lockable	Actuator type
rotary actuator	39	2 position changeover	M	1x NO / 1x NC	(2)	L - L	I - II	-	N7
rotary actuator	39	3 position changeover with center OFF	O	2x NO	(4)	S - L - S	I - 0 - II	-	N8S
rotary actuator	60	2 position changeover with left OFF	O	2x NO	(1)	L - L	0 - I	yes	S6
rotary actuator	60	3 position changeover with center OFF	O	2x NO	(4)	L - L - L	I - 0 - II	yes	S8
rotary actuator	60	3 position changeover with left OFF	M	1x NO / 1x NC	(3)	L - L - L	0 - I - II	yes	S9
key switch rotary actuator	39	2 position changeover with left OFF	O	2x NO	(1)	L - S	0 - I	yes	K6S
key switch rotary actuator	39	3 position changeover with center OFF	O	2x NO	(4)	S - L - S	I - 0 - II	yes	K8S

**Contact Blocks**

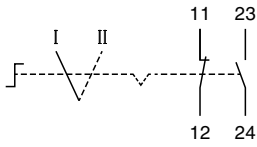
Type	Mounting	Number of poles	Contact configuration	Switching diagram	Image
CFPC	base-mounted	2	2x NC		

**Control Switches, 2 Pole Contact Blocks, for use with GR.CS\* and SR.CS\***

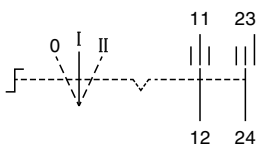
**Switching Diagrams**



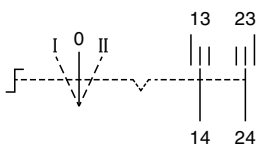
	13	23
0		
I	X	X
	14	24



	11	23
I	X	
II		X
	12	24



	11	23
0		
I	X	
II		X
	12	24



	13	23
I	X	
0		
II		X
	14	24

**Contact Blocks - Technical Data**

**Electrical specifications**

Operating voltage	250 V max.
Operating current	16 A max.
Terminal capacity	2.5 mm <sup>2</sup>
Terminal torque	0.8 Nm

Usage category	AC12: 12 ... 250 V AC - 16 A AC15: 12 ... 250 V AC - 10 A DC13: 12 ... 110 V DC - 1 A DC13: 12 ... 24 V DC - 1 A
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**Mechanical specifications**

Mechanical life	1000000 switching operations
Degree of protection	IP20

**Material**

Housing	Polyamide (PA)
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**Ambient conditions**

Service temperature	-40 ... 90 °C (-40 ... 194 °F)
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**Data for application in connection with hazardous areas**

EU-Type Examination Certificate	CML 16 ATEX 3339U
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Marking	⚠ II 2 G Ex de IIC Gb
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**International approvals**

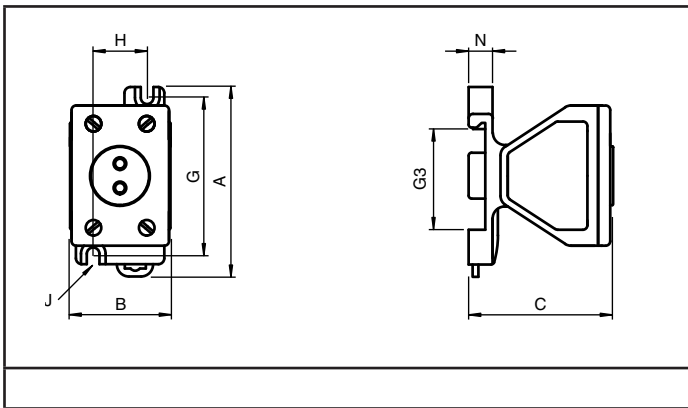
IECEx approval	IECEx CML 16.0114U
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**Conformity**

Degree of protection	EN 60529
Usage category	IEC / EN 60947
CE marking	0102

**General information**

Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .
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**Contact Blocks - Dimensions**

Mounting	External dimension [mm]			Mounting holes [mm]			Mounting brackets [mm]	DIN mounting rail receptacle [mm]	Mass [g]	Enclosure type
	A	B	C	G	H	Diam. J				
							N	G3		

Release date: 2023-03-30 Date of issue: 2023-03-30 Filename: t189602\_eng.pdf

## Control Switches, 4 Pole Contact Blocks, for use with GR.CS\* and SR.CS\*

## Combination of 4 Pole Contact Blocks and Actuator Heads

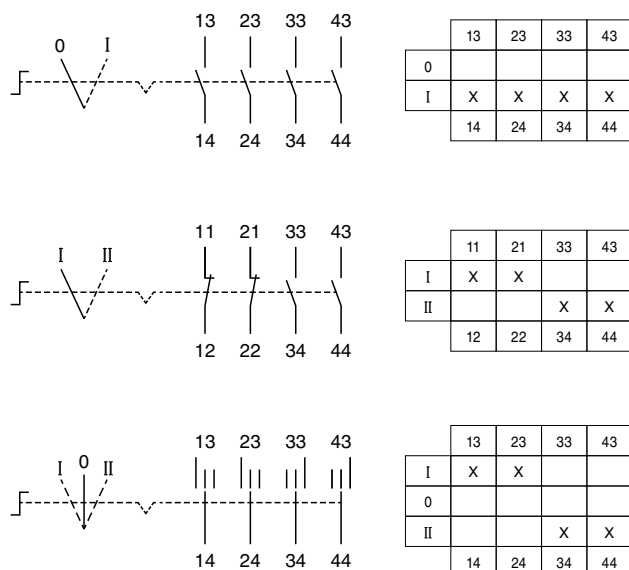
Actuator head function	Actuator head diameter [mm]	Switching configuration	Contact block	Contacts	Switching diagram see overview	Operator action	Labeling	Lockable	Actuator type
rotary actuator	60	2 position changeover	01	2x NO / 2x NC	(6)	L - L	I - II	-	S7
rotary actuator	60	3 position changeover with center OFF	03	4x NO	(7)	S - L - S	I - 0 - II	yes	S8S

## Contact Blocks

Type	Mounting	Number of poles	Contact configuration	Switching diagram	Image
CFP.02	base-mounted	4	4x NC		
CFP.04	base-mounted	4	1x NO / 3x NC		

## Control Switches, 4 Pole Contact Blocks, for use with GR.CS\* and SR.CS\*

## Switching Diagrams



## Contact Blocks - Technical Data

## Electrical specifications

Operating voltage	250 V max.
Operating current	16 A max.
Terminal capacity	2.5 mm <sup>2</sup>
Terminal torque	0.8 Nm
Usage category	AC12: 12 ... 250 V AC - 16 A AC15: 12 ... 250 V AC - 10 A DC13: 12 ... 110 V DC - 1 A DC13: 12 ... 24 V DC - 1 A

## Mechanical specifications

Mechanical life	1000000 switching operations
Degree of protection	IP20

## Material

Housing	Polyamide (PA)
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## Ambient conditions

Service temperature	-40 ... 90 °C (-40 ... 194 °F)
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## Data for application in connection with hazardous areas

EU-Type Examination Certificate	CML 16 ATEX 3339U
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Marking	II 2 G Ex de IIC Gb
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## International approvals

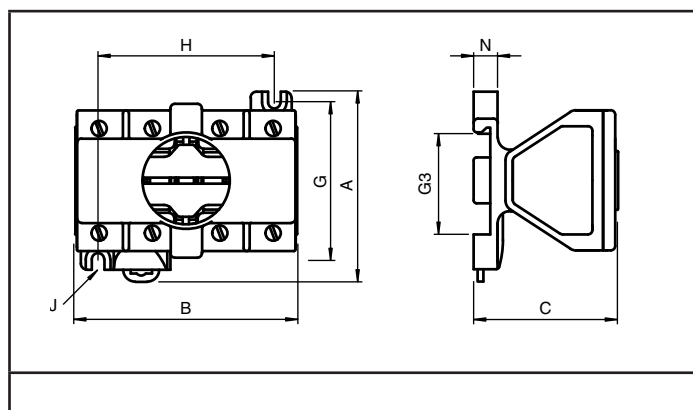
IECEx approval	IECEx CML 16.0114U
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## Conformity

Degree of protection	EN 60529
Usage category	IEC / EN 60947
CE marking	0102

## General information

Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .
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## Contact Blocks - Dimensions

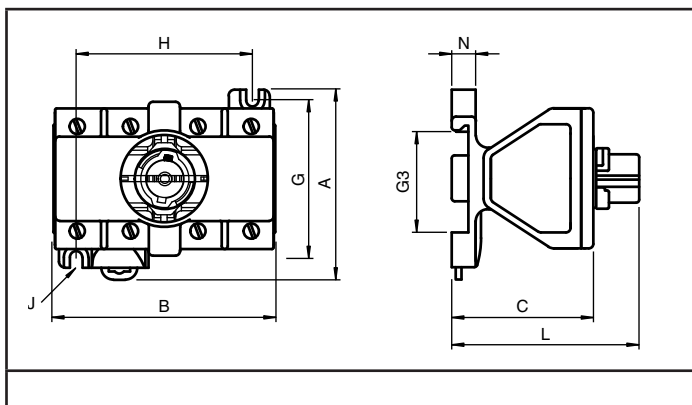
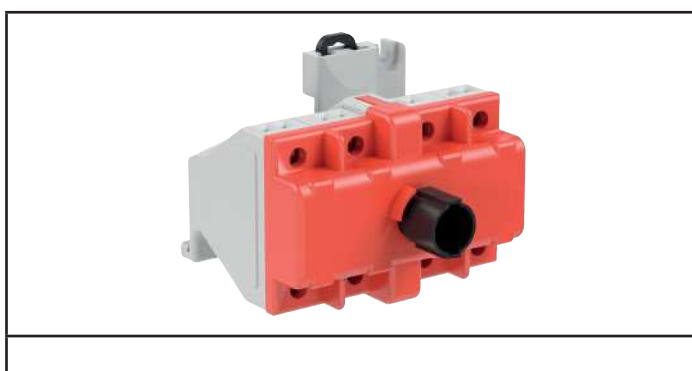
Mounting	External dimension [mm]			Mounting holes [mm]			Mounting brackets [mm]	DIN mounting rail receptacle [mm]	Mass [g]	Enclosure type
	A	B	C	G	H	Diam. J				
							N	G3		

**Control Switches, 4 Pole Rotary Switching Blocks, for use with GR.CS\* and SR.CS\***

Combination of 4 Pole Rotary Switching Blocks and Actuator Heads							
Switching configuration	Switching block	Contacts	Switching diagram see overview	Operator action	Labeling	Lockable	Actuator type
2 position changeover	11	2x NO / 2x NC	(11)	L - L	I - II	-	T7
2 position changeover	18	1x NO / 3x NC	(18)	L - L	I - II	-	T7
3 position changeover, center OFF	14	4x NO	(14)	L - L - L	I - 0 - II	yes	T8
3 position changeover	22	4x NO	(22)	L - L - L	I - 0 - II	-	T8
3 position changeover, right spring return	19	2x NO / 2x NC	(19)	L - L - S	0 - I - II	-	T0
4 position changeover	15	3x NO / 1x NC	(15)	L - L - L - L	I - II - III - IV	-	T9
4 position changeover	21	4x NO	(21)	L - L - L - L	I - II - III - IV	-	T9

## Control Switches, 4 Pole Rotary Switching Blocks, for use with GR.CS\* and SR.CS\*

## Dimensions



## Switching Blocks - Technical Data

## Electrical specifications

Operating voltage	250 V max.
Operating current	16 A max.
Terminal capacity	2.5 mm <sup>2</sup>
Terminal torque	0.8 Nm
Usage category	AC12: 12 ... 250 V AC - 16 A AC15: 12 ... 250 V AC - 10 A DC13: 12 ... 110 V DC - 1 A DC13: 12 ... 24 V DC - 1 A

## Mechanical specifications

Mechanical life	1000000 switching operations
Degree of protection	IP20

## Material

Housing	Polyamide (PA)
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## Ambient conditions

Service temperature	-40 ... 90 °C (-40 ... 194 °F)
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## Data for application in connection with hazardous areas

EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	II 2 G Ex de IIC Gb

## International approvals

IECEx approval	IECEx CML 16.0114U
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## Conformity

Degree of protection	EN 60529
Usage category	IEC / EN 60947
CE marking	0102

## General information

Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .
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## Switching Blocks - Dimensions

Mounting	External dimension [mm]			Mounting holes [mm]			Mounting brackets [mm]	DIN mounting rail receptacle [mm]	Mass [g]	Enclosure type
	A	B	C	G	H	Diam. J				
								G3		

**Control Switches, 4 Pole Rotary Switching Blocks, Switching diagrams**


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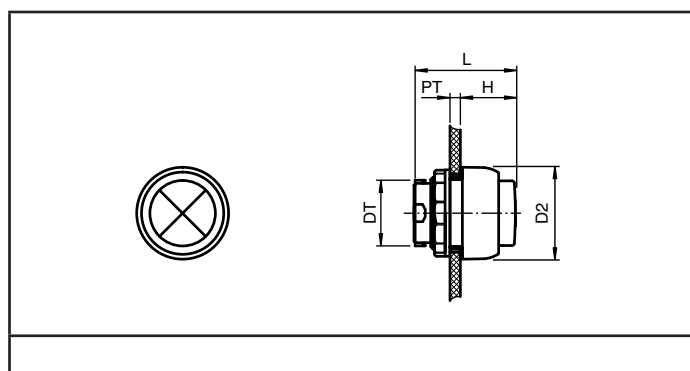
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Release date: 2023-03-30 Date of issue: 2023-03-30 Filename: t189602\_eng.pdf

## LED Indicators

## LED Indicators Lenses

Type	Lens color	Image
		
CFP.LG	green	
		
CFP.LW	white	
		



## LED Heads - Technical Data

## Mechanical specifications

Degree of protection IP66

## Material

Housing Polyamide (PA)

Finish inherent color black

Washer gasket silicone

## Ambient conditions

Ambient temperature -40 ... 55 °C (-40 ... 131 °F)

Service temperature -40 ... 65 °C (-40 ... 149 °F)

## Data for application in connection with hazardous areas

EU-Type Examination Certificate CML 16 ATEX 3339U

Marking

 II 2 GD  
Ex e IIC Gb  
Ex tb IIIC Db

## International approvals

IECEX approval IECEX CML 16.0114U

## Conformity

Degree of protection EN 60529

CE marking 0102

## General information

Supplementary information


EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

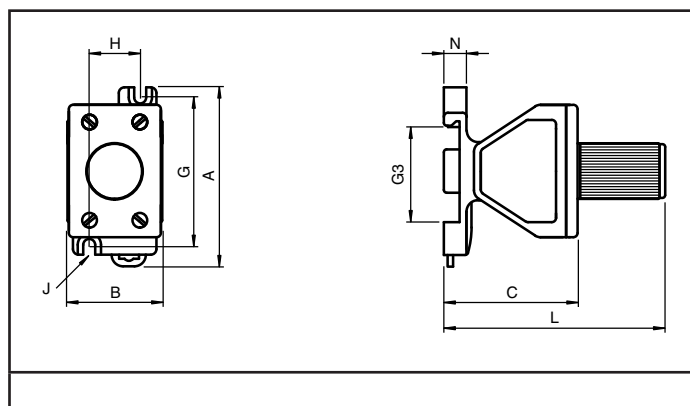
## LED Heads - Dimensions

Diameter [mm]	Panel wall thickness [mm]	Diameter thru-hole [mm]	Length outside enclosure [mm]	Total length [mm]	Mass [g]	Mounting	Enclosure type
D2	PT	DT	H	L			

## LED Indicators

## LED Modules

Type	Mounting	Rated operating voltage [V AC/DC]	Image
CFP.NE	base-mounted	10 ... 28	



## LED Modules - Technical Data

## Electrical specifications

Operating voltage	250 V max.
Power consumption	2 W max.
Terminal capacity	2.5 mm <sup>2</sup>
Terminal torque	0.8 Nm

## Mechanical specifications

Degree of protection	IP20
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## Material

Housing	Polyamide (PA)
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## Ambient conditions

Service temperature	-40 ... 90 °C (-40 ... 194 °F)
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## Data for application in connection with hazardous areas

EU-Type Examination Certificate	CML 16 ATEX 3339U
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Marking	 II 2 G Ex de IIC Gb
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## Intrinsically safe variants \*.NI, \*.GI

Marking	 II 1 G Ex ia IIC Ga
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Voltage U <sub>i</sub>	28 V
Current I <sub>i</sub>	93 mA
Power P <sub>i</sub>	0.651 W
Internal capacitance C <sub>i</sub>	0 µF
Internal inductance L <sub>i</sub>	0 mH

## International approvals

IECEX approval	IECEX CML 16.0114U
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## Conformity

Degree of protection	EN 60529
CE marking	0102

## General information


Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .
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## LED Modules - Dimensions

Mounting	External dimension [mm]				Mounting holes [mm]			Mounting brackets [mm]	DIN rail receptacle [mm]	Mass [g]	Enclosure type
	A	B	C	L	G	H	Diam. J				
									G3		

## Buzzer

## Buzzer Modules

Type	Function	Color	Rated operating voltage [V AC/DC]	Image
CFP. BUZRF2	flashing buzzer	red	30 ... 250	
CFP. BUZKS2	buzzer	black	30 ... 250	

## Buzzer - Technical Data

## Electrical specifications

Operating voltage	250 V max.
Power consumption	1 W max.
Terminal capacity	2.5 mm <sup>2</sup>
Terminal torque	0.8 Nm
Sound level	60 dB at 30 cm

## Mechanical specifications

Degree of protection	IP66
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## Material


Housing	Polyamide (PA)
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## Ambient conditions

Ambient temperature	-40 ... 55 °C (-40 ... 131 °F)
Service temperature	-40 ... 90 °C (-40 ... 194 °F)

## Data for application in connection with hazardous areas

EU-Type Examination Certificate	CML 16 ATEX 3339U
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Marking	 II 2 GD Ex e ib mb IIC Gb Ex ib tb IIIC Db
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## International approvals

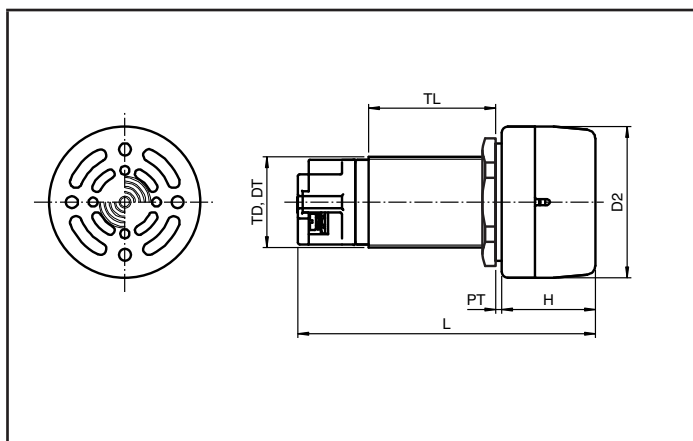
IECEx approval	IECEx CML 16.0114U
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## Conformity

Degree of protection	EN 60529
CE marking	0102

## General information

Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .
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## Buzzer - Dimensions

Actuator head diameter [mm]	Panel wall thickness [mm]	Diameter thru-hole [mm]	Length outside enclosure [mm]	Total length [mm]	Thread size	Thread length [mm]	Mass [g]	Mounting	Enclosure type
D2	PT	DT	H	L	TD	TL			

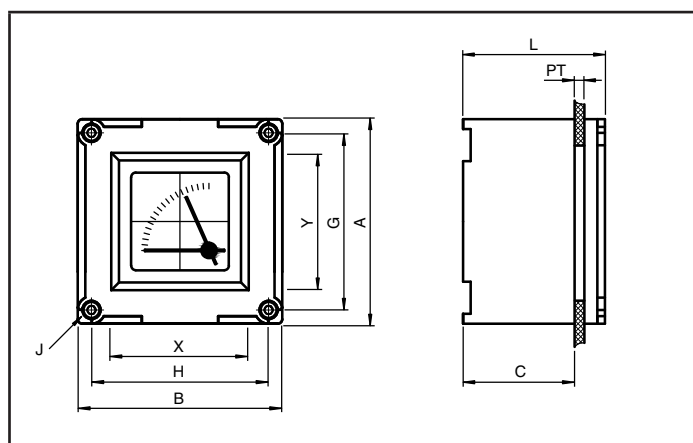
## Ammeters

## Ammeter Modules

Type	Rated operating current	Scales see table	Image
CFP.AB	0 ... 5 A	scale per specification	
CFP.AD	0 ... 20 mA	scale 0 ... 20 / 40 mA	

## Ammeter Scales

Scales	Type Code		
0 ... 2.5 / 12.5 A	SB	0 ... 200 / 1000 A	SN
0 ... 10 / 50 A	SD	0 ... 300 / 1500 A	SP
0 ... 20 / 100 A	SU	0 ... 500 / 2500 A	SR
0 ... 30 / 150 A	SG	0 ... 1000 / 5000 A	ST
0 ... 50 / 250 A	SI		
0 ... 75 / 375 A	SK		



## Ammeter Modules - Dimensions

External dimension [mm]				Viewing window [mm]		Panel wall thickness [mm]	Mounting holes [mm]			Mass [g]	Enclosure type
A	B	C	L	X	Y	PT	G	H	Diam. J		

## Ammeter Modules - Technical Data

## Electrical specifications

Operating voltage	500 V AC
Operating current	5 A max.
Accuracy class	1.5
Terminal capacity	2.5 mm <sup>2</sup>
Terminal torque	0.8 Nm

## Mechanical specifications

Degree of protection	IP66
Mounting	Meter window mounting kit


## Material

Housing	Polyamide (PA)
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## Ambient conditions

Service temperature	-40 ... 95 °C (-40 ... 203 °F)
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## Data for application in connection with hazardous areas

EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	 II 2 G Ex e IIC Gb

## International approvals

IECEx approval	IECEx CML 16.0114U
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## Conformity

Degree of protection	EN 60529
CE marking	0102

## General information


Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .
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## Meter Window Mounting Kits

Type	Window including	Enclosure type
CFP.WL	cover mounting kit	FXL*.CS, SR.CS*

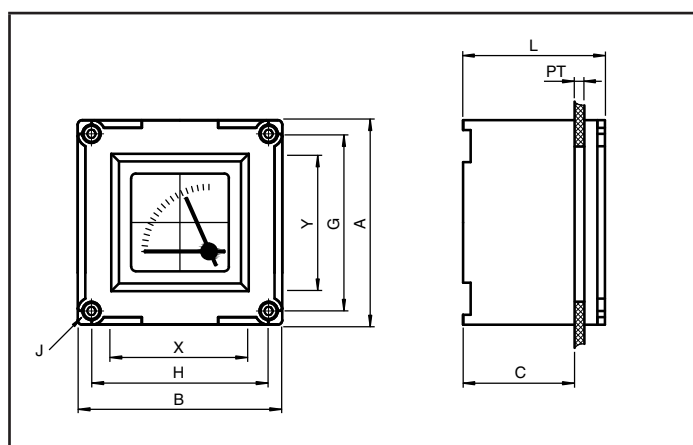
## Voltmeters

### Voltmeter Modules

Type	Rated operating voltage	Image
CFP.V1	0 ... 25 V	
CFP.V7	0 ... 50 V	
CFP.V9	0 ... 120 V	
CFP.V4	0 ... 250 V	

### Voltmeter Scales

included in module



### Voltmeter Modules - Technical Data

#### Electrical specifications

Operating voltage	500 V AC
Accuracy class	1.5
Terminal capacity	2.5 mm <sup>2</sup>
Terminal torque	0.8 Nm

#### Mechanical specifications

Degree of protection	IP66
Mounting	Meter window mounting kit


#### Material

Housing	Polyamide (PA)
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#### Ambient conditions

Service temperature	-40 ... 95 °C (-40 ... 203 °F)
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#### Data for application in connection with hazardous areas

EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	 II 2 G Ex e IIC Gb

#### International approvals

IECEX approval	IECEX CML 16.0114U
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#### Conformity

Degree of protection	EN 60529
CE marking	0102

#### General information

Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .
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### Meter Window Mounting Kits


Type	Window including	Enclosure type
CFP.WL	cover mounting kit	FXL*.CS, SR. CS*

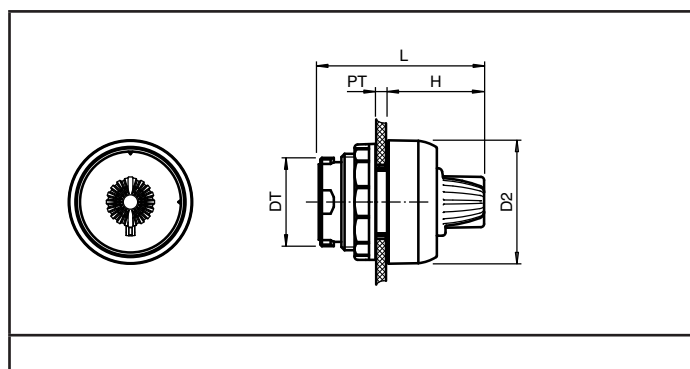
### Voltmeter Modules - Dimensions

External dimension [mm]				Viewing window [mm]		Panel wall thickness [mm]	Mounting holes [mm]			Mass [g]	Enclosure type
A	B	C	L	X	Y	PT	G	H	Diam. J		

## Potentiometers

### Potentiometer Actuator Heads

Type	Enclosure type	Labeling	Image
			



### Actuator Heads - Technical Data

#### Mechanical specifications

Degree of protection IP66

#### Material

Housing Polyamide (PA)

Finish inherent color black

Washer gasket silicone


#### Ambient conditions

Ambient temperature -40 ... 55 °C (-40 ... 131 °F)

Service temperature -40 ... 65 °C (-40 ... 149 °F)

#### Data for application in connection with hazardous areas

EU-Type Examination Certificate CML 16 ATEX 3339U

Marking  II 2 GD  
Ex e IIC Gb  
Ex tb IIIC Db

#### International approvals

IECEx approval IECEx CML 16.0114U

#### Conformity

Degree of protection EN 60529

CE marking 0102

#### General information


Supplementary information EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

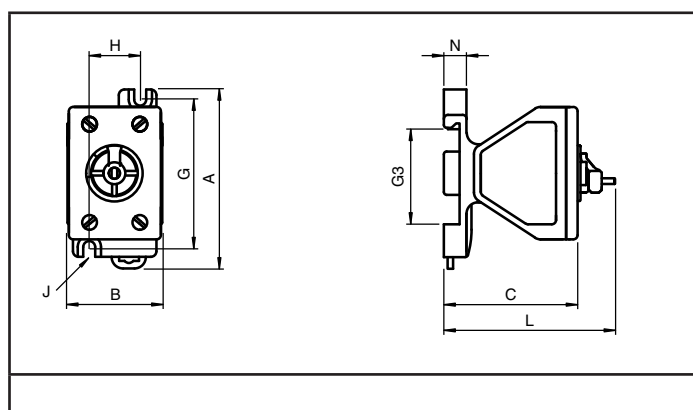
### Potentiometer Actuator Heads - Dimensions

Actuator head diameter [mm]	Panel wall thickness [mm]	Diameter thru-hole [mm]	Length outside enclosure [mm]	Total length [mm]	Mass [g]	Mounting
D2	PT	DT	H	L		

## Potentiometers

### Potentiometer Modules

Type	Mounting	Range [kΩ]	Image
CFP.1	base-mounted	0 ... 1	
CFP.5	base-mounted	0 ... 5	



### Potentiometer Modules - Technical Data

#### Electrical specifications

Operating voltage	200 V max.
Power consumption	0.1 W max.
Terminal capacity	2.5 mm <sup>2</sup>
Terminal torque	0.8 Nm

#### Mechanical specifications

Degree of protection	IP20
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#### Material

Housing	Polyamide (PA)
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#### Ambient conditions

Service temperature	-55 ... 90 °C (-67 ... 194 °F)
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#### Data for application in connection with hazardous areas

EU-Type Examination Certificate	CML 16 ATEX 3339U
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Marking	 II 2 G Ex de IIC Gb
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#### International approvals

IECEx approval	IECEx CML 16.0114U
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#### Conformity

Degree of protection	EN 60529
CE marking	0575








#### General information






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### Potentiometer Modules - Dimensions

Mounting	External dimension [mm]				Mounting holes [mm]			Mounting brackets [mm]	DIN rail receptacle [mm]	Mass [g]	Enclosure type
	A	B	C	L	G	H	Diam. J				

## Operating Elements Accessories

Accessory		
Type	Description	Image
		
CFP.ZT	Extra small label holder with printed label as per specification	
		
CFP.ZL	Large label holder with printed label as per specification	
		
CFP.ZEB.V2	Emergency stop label, yellow, round, engraved NOT HALT EMERGENCY STOP	
		

Accessory		
Type	Description	Image
		
CFP.ZJ CFP.ZJR (1) (8)	Protective pushbutton flap with continuous operation, plastic, padlockable	
		
CFP.ZA CFP.ZAR (4) (8) (9)	Protective flap, plastic	
		
CFP.ZDT (6) (9)	Protective flap, stainless steel	