

### Control Stations Ex e, Stainless Steel, cover-mounted contact modules

## SR.CS\*

- Stainless Steel enclosure
- Installation in Zone 1, Zone 2, Zone 21 and Zone 22
- Ex db eb, Ex ib and Ex tb certified
- Up to 102 operators per control station
- 5 enclosure size options
- Return Flange Sealing provides Drain Channel
- Customizable configuration of operators, cable entry quantities and cable gland types as per specification
- Customizable configuration of gland plates, ground bolt and hinges as per specification
- Option for vertical or horizontal mounting provides high flexibility
- Up to 4 gland plates
- Wide range of labels and accessories available

Control Stations Ex e, Stainless Steel, cover-mounted contact modules











### **Function**

The SR series is a flexible range of control stations that are fully customizable. Enclosures can meet the needs of user specifications by being supplied with or without accessories such as cover hinges, mounting brackets or gland plates.

A comprehensive range of operating elements, contact blocks, terminals, entry devices and enclosure accessories are available to ensure each configuration will exactly meet any application requirements.

Enclosures are manufactured from brushed AISI 316L stainless steel and all fixings are manufactured from A4 grade stainless steel as standard to provide excellent tarnish and corrosion resistance.

Your solution can be mounted in portrait or landscape orientation in temperatures ranging from -50°C up to +55 °C. Endless configurations can be

confirmed by your local Pepperl+Fuchs office.

### **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	stainless steel A4 (V4A) hexagonal head screws, see data table
Cover seal	silicone
Degree of protection	IP66
Cable entry	cable glands as per specification
Gland plate on face(s)	optional
Material	
Enclosure	1.5 mm AISI 316L, (1.4404) stainless steel
Gland plate	optional 3 mm or 6 mm AISI 316L (1.4404) stainless steel
Finish	brushed
Mass	see data table valid for empty enclosure, will increase according to integrated components
Dimensions	see data table
Mounting	screws, optional mounting brackets enclosed
Grounding	M6 internal/external brass nickel-plated grounding bolt M6 internal stainless steel grounding bolt welded to lid M6 internal stainless steel grounding bolt welded to enclosure body
Ambient conditions	

Refer to "General Notes Relating to Pepperl+Fuchs Product Information"

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### **Technical Data**

Ambient temperature	-50 55 °C (-58 131 °F) depending on integrated components
Data for application in connection with hazard	lous areas
EU-type examination certificate	CML 16 ATEX 3009X
Marking	
International approvals	
IECEx approval	IECEx CML 16.0008X
UKCA approval	CML 21 UKEX 2550X
ECAS approval	22-10-53256/E22-09-052316/NB0002
Conformity	
Degree of protection	EN60529
CE marking	0102
General information	
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 www.pepperl-fuchs.com.
Accessories	
Optional accessories	Mounting plate M6 internal/external stainless steel grounding bolt cover hinges stainless steel AISI 316L gland plate 3 mm AISI 316L (1.4404) stainless steel gland plate 6 mm AISI 316L (1.4404) stainless steel M6 internal stainless steel grounding bolt welded to bottom gland plate quarter-turn key locks stainless steel A4 (V4A) engraved traffolyte tag label engraved AISI 316L stainless steel tag label color in-fill stainless steel tag label cover padlock facility
Indicators/operating means	
Control elements	small footprint max. 102 see data table all NC contacts have a direct opening action for emergency stop functions

### **Assembly**



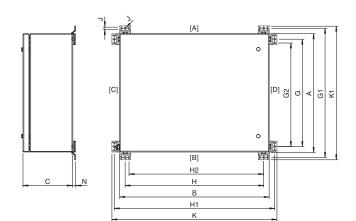
### **Type Code**

1	2	3	4	5	6	7		8	9
SR	***	**	**	**	*	*	-	*	****
SR	CSE	38	48	16	В	1	-	S	0001

Example: SR.CSE.38.48.16.B.1-S0001 Control Station stainless steel, size 38x48x16 cm, landscape orientation with face B at bottom, gland plate at bottom face, standard product

SR  2  CSE  CSI  CSM	stainless steel  Type of solution  control station (Ex e)  control station (Ex i)  control station, various types of explosion protection, e.g. (Ex e, Ex i) or (Ex e, Ex op pr)  Height [cm]  see dimensions data table
CSE CSI CSM	control station (Ex e) control station (Ex i) control station, various types of explosion protection, e.g. (Ex e, Ex i) or (Ex e, Ex op pr)  Height [cm]
CSE CSI CSM	control station (Ex e) control station (Ex i) control station, various types of explosion protection, e.g. (Ex e, Ex i) or (Ex e, Ex op pr)  Height [cm]
CSI CSM	control station (Ex i) control station, various types of explosion protection, e.g. (Ex e, Ex i) or (Ex e, Ex op pr)  Height [cm]
CSM 3	control station, various types of explosion protection, e.g. (Ex e, Ex i) or (Ex e, Ex op pr)  Height [cm]
3	Height [cm]
า	and dimensional data table
	see differsions data table
1	Width [cm]
n	see dimensions data table
5	Depth [cm]
n	see dimensions data table
6	Cable entry face orientation
3	face [B] at bottom
D	face [D] at bottom
7	Gland plates
)	none
1	one gland plate at bottom face
2	two gland plates
3	three gland plates
4	four gland plates
3	Variant
3	standard product
2	configured product
CA	configured and adapted product
Y	engineered product
9	Variant number
XXXX	consecutive item number

9	Variant number
XXXX	consecutive item number



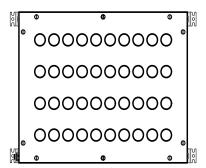
Tirno		External dimensions [mm]			Mounting [mm]						Mass approx.		Cover so	rews			
Туре	A	В	С	К	K1	G	G1	G2	н	H1	H2	J	N	[kg]	Mx	qty.	Torque [Nm]
SRM.26.26.16	260	260	160	310	310	295	225	212.5	225	295	282.5	7	8.5	5.8	M6	4	3.5
SRM.31.31.16	310	310	160	360	360	345	275	262.5	275	345	332.5	7	8.5	8	M6	4	3.5
SRM.38.48.16	380	480	160	530	430	515	345	332.5	445	415	402.5	7	8.5	12	M6	6	3.5
SRL.48.48.16	480	480	160	530	530	515	445	432.5	445	515	502.5	7	8.5	14	M6	8	3.5
SRL.48.76.16	480	760	160	810	530	795	445	432.5	725	515	502.5	7	8.5	20	M6	8	3.5

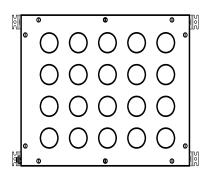
Mass is valid for empty enclosure, it will increase according to enclosure accessories, integrated components and entry devices

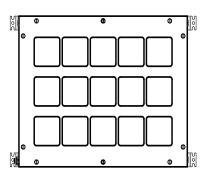
## **Control Elements max. Quantity per Enclosure Type**

				Control	elements quan	tity max.				
Туре		small footprint			large footprint		viewing windows			
	vertical	horizontal	total	vertical	horizontal	total	vertical	horizontal	total	
SRM.26.26.16	3	4	12	2	2	4	2	2	4	
SRM.31.31.16	3	5	15	3	3	9	3	3	9	
SRM.38.48.16	4	10	40	4	5	20	3	5	15	
SRL.48.48.16	6	10	60	5	5	25	4	5	20	
SRL.48.76.16	6	17	102	5	8	40	4	8	32	

Quantities are based on horizontal DIN mounting rails, they may vary with vertical DIN mounting rails







Example based on SR.CSE.38.48.16.B

### Left (small footprint):

Small operating elements with small label holder and 2 pole contact blocks

Small operating elements include all pushbuttons, small switching actuators, LED indicators and potentiometers

### Middle (large footprint):

Large switching actuators and all operating elements fitted with 4 pole contact modules, protective lid or padlockable shroud

Viewing windows with ammeter or voltmeter as well as operating elements with large label holders

The use of label holders depends on operating elements configuration The position of the grounding bolt can vary depending on configuration All NC contacts have a direct opening action for emergency stop functions

For further configurations please contact Pepperl+Fuchs

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### **Pushbuttons and Emergency Stops**

Pushbutte	ons Actuator Heads	;	
Туре	Color	Labeling	Image
CFP.PA	red	none	
CFP.PR	red	0	
CFP.PC	red	STOP	
CFP.PD	red	OFF	
CFP.PE	green	none	
CFP.PG	green	1	
CFP.PI	green	II	
CFP.PF	green	START	
CFP.PH	green	ON	
CFP.PY	yellow	none	0
CFP.PO	amber	none	
CFP.PW	white	none	
CFP.PB	blue	none	
CFP.PJ	blue	RESET	
CFP.PK	black	none	
CFP.PL	black	0	0
CFP.PN	black	I	
CFP.PP	black	II	
CFP.PQ	black	III	
CFP.PT	black	IV	IV
CFP.PU	black	arrow up	
CFP.PV	black	arrow down	
CFP.PZ*	see individual	datasheets	

Actuator Heads - Techni	cal Data
Mechanical specification	
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 co	onnection with
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	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.
Enclosure type	LC*, LRS* FXL*.CS, SR.CS* GR.CS*

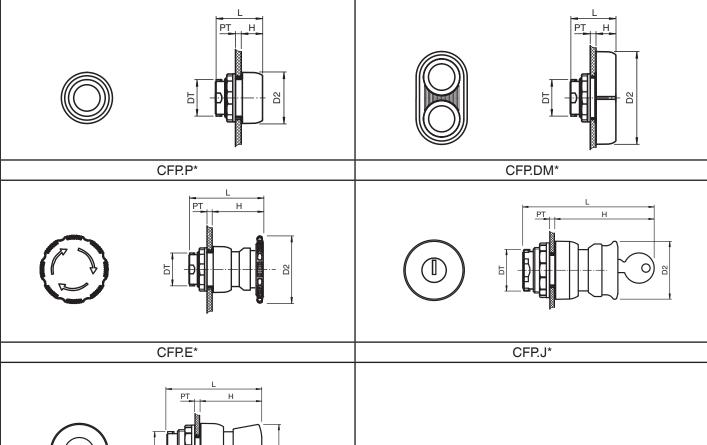
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Emergency Stops Actuator Heads											
Туре	Function	Color	Labeling	Operator action	Actuator head diameter	Switching diagram	Image				
CFP.E4	mushroom button	red	none	latching, twist to release	40 mm	<b>4</b>	0				
CFP.E5	mushroom button	red	none	latching, twist to release	55 mm	<b>(</b>	(0)				
CFP.JR	mushroom button	red	none	latching, key release	39 mm	<b>4</b>					

Other Pushbuttons Actuator Heads											
Туре	Function	Color	Labeling	Operator action	Actuator head diameter	Switching diagram	Image				
CFP.DM	pushbutton	red / green	0 - I	spring return	70 mm x 39 mm	E	00				
CFP.MK	mushroom button	black	none	spring return	39 mm	<b>(</b>					
CFP.MR	mushroom button	red	none	spring return	39 mm	<b>(</b>					
CFP.MG	mushroom button	green	none	spring return	39 mm	( <del> </del>					

### **Pushbuttons and Emergency Stops**

Pushbuttons and Emergency Stops - Dimensions									
Туре	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	н	L			
CFP.P*	pushbutton	39	1 6	30.6	15.5	35.4	25		
CFP.DM*	double pushbutton	70 x 39	1 6	30.6	15.5	35.4	38		
CFP.E4	emergency stop	40	1 6	30.6	41.8	62.1	52		
CFP.E5	emergency stop	55	1 6	30.6	41.8	62.1	58		
CFP.JR	key release mushroom button	39	1 6	30.6	49.5	70	65		
CFP.M*	mushroom button	37	1 6	30.6	41.2	60.7	46		



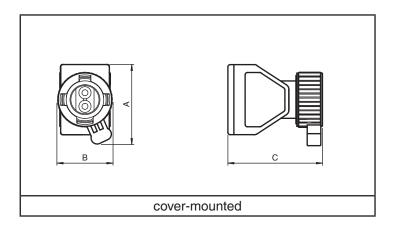
Contact Block	(S				
Туре	Mounting	Number of poles	Contact configuration	Switching diagram see overview	Image
CFP.A	cover-mounted	2	1x NO / 1x NC	11 23	
CFP.B	cover-mounted	2	2x NC	11 21       	
CFP.D	cover-mounted	2	2x NO	13 23         14 24	

Contact Blocks - Technic	al Data
<b>Electrical specifications</b>	
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
<b>Mechanical specification</b>	s
Mechanical life	1000000 switching operations
Degree of protection	IP20
Material	
Housing	Polyamide (PA)
Ambient conditions	
Service temperature	-40 90 °C (-40 194 °F)
Data for application in co with hazardous areas	onnection
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex de IIC Gb

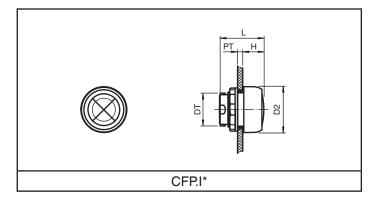
Contact Blocks - Technic	al Data continued
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
Usage category	IEC / EN 60947
CE marking	0102
General information	
Supplementary information	EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

### **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	В	С	G	н	Diam. J	N	G3		
cover-mounted	54	37	63	-	-	-	-	-	79	FXL*.CS SR.CS*



Illuminated Pushbuttons Actuator Heads									
Туре	Lens color	Operator action	Switching diagram	Image					
CFP.IR	red	spring return	E						
CFP.IG	green	spring return	E						
CFP.IO	amber	spring return	E						
CFP.IW	white	spring return	E						
CFP.IB	blue	spring return	E						



Actuator Heads - Techn	ical Data
Mechanical specification	าร
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 co with hazardous areas	onnection
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	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.

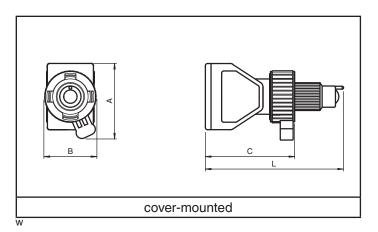
Illuminated Pu	ushbuttons Act	uator Heads - [	Dimensions						
Actuator head diameter [mm]	Panel wall thickness [mm]	Diameter thru-hole [mm]	outside length		outside lengt lengt		Mass [g]	Mounting	Enclosure type
D2	PT	DT	н	L					
39	1 6	30.6	17.5	36.8	21	use with base-mounted and cover-mounted contact modules	LC*, LR* FXL*.CS GR.CS*		

### **Illuminated Pushbuttons**

LED Conta	ct Modules					
Туре	Mounting	Operating voltage [V]	Number of poles	Contact configuration	Switching diagram	Image
CFP.KL	cover-mounted	10 28 V AC/DC	1	1x NO		
CFP.K	cover-mounted	30 250 V AC	1	1x NO	3 X1 \	
CFP.KI	cover-mounted	10 28 V AC/DC Ex ia	1	1x NO	7 12	3
CFP.HL	cover-mounted	10 28 V AC/DC	1	1x NC		
CFP.H	cover-mounted	30 250 V AC	1	1x NC	1 X1 	
CFP.HI	cover-mounted	10 28 V AC/DC Ex ia	1	1x NC	2 12	

### **Illuminated Pushbuttons**

LED Contact Modules - Dimensions											
Mounting	External dimension [mm]			Mounting holes [mm]			Mounting brackets [mm]	DIN rail receptacle [mm]	Mass	Enclosure	
	A	В	С	L	G	н	Diam. J	N	G3	[g]	type
cover-mounted	54	37	63	88	-	-	-	-	-	82	FXL*.CS SR.CS*



LED Modules - Technica	l Data
<b>Electrical specifications</b>	
Operating voltage	250 V max.
Operating current	10 A max.
Power consumption	1 W max.
Terminal capacity	2.5 mm <sup>2</sup>
Terminal torque	0.8 Nm
Usage category	AC15: 10 250 V AC - 10 A DC13: 10 24 V DC - 1 A
Mechanical specification	S
Mechanical life	1000000 switching operations
Degree of protection	IP20
Material	
Housing	Polyamide (PA)
Ambient conditions	
Service temperature	-55 90 °C (-67 194 °F)
Data for application in contact hazardous areas	onnection with
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex de IIC Gb
Intrinsically safe varian	ts
Marking	II 1 G Ex ia IIC Ga
Voltage U	28 V
Current I	93 mA
Power P	0.651 W
Internal capacitance C	0 μF
Internal inductance L	0 mH
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
Usage category	IEC / EN 60947-3
CE marking	0102

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.							

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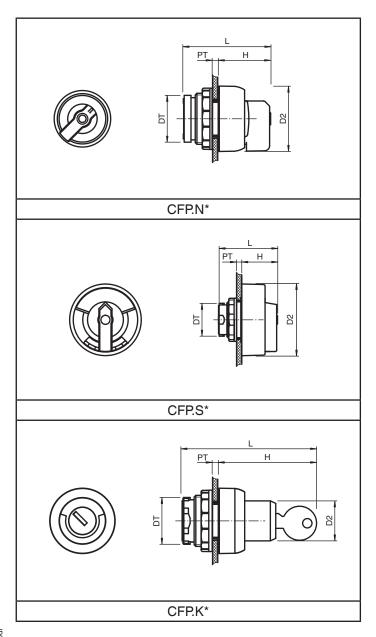
### Control Switches Actuator Heads, for use with SR.CS\* and FXLS\*.CS

Control Sw	ritch Actuator H	leads						
Туре	Function	Dia- meter [mm]	Switching configuration	Switching diagram	Opera- tor action	Labeling	Lock- able	Image
CFP.N6	rotary actuator	39	2 position changeover with left OFF	5 <del>\</del> √√	L-L	0 - 1	-	
CFP.N7	rotary actuator	39	2 position changeover	J\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-	L-L	1 - 11	-	
CFP.N8	rotary actuator	39	3 position changeover with center OFF	<u>}√</u>	L-L-L	I - O - II	-	
CFP.N8S	rotary actuator	39	3 position changeover with center OFF	F	S-L-S	I - O - II	-	
CFP.N9	rotary actuator	39	3 position changeover with left OFF	F/	L-L-L	0 - I - II	-	
CFP.S6	rotary actuator	60	2 position changeover with left OFF	F\-\-	L-L	0 - 1	yes	
CFP.S7	rotary actuator	60	2 position changeover	F\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\	L-L	I - II	-	
CFP.S8	rotary actuator	60	3 position changeover with center OFF	<u>}</u> -/	L-L-L	I - O - II	yes	
CFP.S8S	rotary actuator	60	3 position changeover with center OFF	FV	S-L-S	I - 0 - II	yes	
CFP.S9	rotary actuator	60	3 position changeover with left OFF	F\/\	L-L-L	0 - I - II	yes	
CFP.K6	key switch rotary actuator	39	2 position changeover with left OFF	F\-\-\-\-\-\	L-L	0 - 1	yes	
CFP.K6S	key switch rotary actuator	39	2 position changeover with left OFF	JV	L-S	0 - 1	yes	
CFP.K8	key switch rotary actuator	39	3 position changeover with center OFF	Ŀ <u>/</u> /^	L-L-L	I - O - II	yes	
CFP.K8S	key switch rotary actuator	39	3 position changeover with center OFF	F\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	S-L-S	I - O - II	yes	

Operator action: L = latching, S = spring return

### **Control Switches Actuator Heads**

### **Actuator Heads - Dimensions**



Astrotovillosdo Toobui	and Date
Actuator Heads - Techni	
Mechanical specification	
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 co	onnection with
hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	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.

Туре	Actuator head diameter [mm]	Panel wall thickness [mm]	Diameter thru-hole [mm]	Length outside enclosure [mm]	Total length [mm]	Mass [g]	Image example
	D2	PT	DT	н	L		
CFP.N*	39	1 6	30.6	30.5	50.5	30	
CFP.S*	60	1 6	30.6	30.5	50.5	46	
CFP.K*	39	1 6	30.6	49.5	70	46	

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

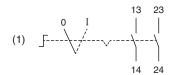
Combination	of 2 Pole	Contact Blocks and A	ctuator H	leads					
Actuator head function	Actuator head diameter [mm]	Switching configuration	Contact block	Contacts	Switching diagram see overview	Opera- tor action	Label- ing	Lock- able	Actu- ator type
rotary actuator	39	2 position changeover with left OFF	D	2x NO	(1)	L-L	0 - I	-	N6
rotary actuator	39	2 position changeover	Α	1x NO / 1x NC	(2)	L-L	1 - 11	-	N7
rotary actuator	39	3 position changeover with center OFF	D	2x NO	(4)	L-L-L	I - 0 - II	-	N8
rotary actuator	39	3 position changeover with center OFF	D	2x NO	(4)	S-L-S	I - 0 - II	-	N8S
rotary actuator	39	3 position changeover with left OFF	А	1x NO / 1x NC	(3)	L-L-L	0 - I - II	-	N9
rotary actuator	60	2 position changeover with left OFF	D	2x NO	(1)	L-L	0 - 1	yes	S6
rotary actuator	60	2 position changeover	А	1x NO / 1x NC	(2)	L-L	1 - 11	-	S7
rotary actuator	60	3 position changeover with center OFF	D	2x NO	(4)	L-L-L	I - 0 - II	yes	S8
rotary actuator	60	3 position changeover with center OFF	D	2x NO	(4)	S-L-S	I - 0 - II	yes	S8S
rotary actuator	60	3 position changeover with left OFF	А	1x NO / 1x NC	(3)	L-L-L	0 - I - II	yes	S9
key switch rotary actuator	39	2 position changeover with left OFF	D	2x NO	(1)	L-L	0 - 1	yes	K6
key switch rotary actuator	39	2 position changeover with left OFF	D	2x NO	(1)	L-S	0 - 1	yes	K6S
key switch rotary actuator	39	3 position changeover with center OFF	D	2x NO	(4)	L-L-L	I - 0 - II	yes	K8
key switch rotary actuator	39	3 position changeover with center OFF	D	2x NO	(4)	S-L-S	I - 0 - II	yes	K8S

Operator action: L = latching, S = spring return

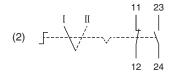
Contact Block	(S				
Туре	Mounting	Number of poles	Contact configuration	Switching diagram	Image
CFP.A	cover-mounted	2	1x NO / 1x NC	11 23	
CFP.B	cover-mounted	2	2x NC	11 21 	
CFP.D	cover-mounted	2	2x NO	13 23 	

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

### **Switching Diagrams**

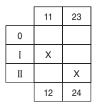


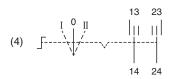
	13	23
0		
I	Х	Х
	14	24

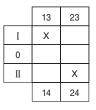


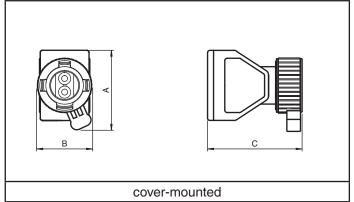












Contact Blocks - Techni	ical Data
<b>Electrical specifications</b>	
Operating voltage	250 V max.
Operating current	16 A max.
Terminal capacity	2.5 mm <sup>2</sup>
Terminal torque	0.8 Nm
Usage category	AC12: 12 250 V AC - 16 A AC15: 12 250 V AC - 10 A DC13: 12 110 V DC - 1 A DC13: 12 24 V DC - 1 A
Mechanical specification	ns
Mechanical life	1000000 switching operations
Degree of protection	IP20
Material	
Housing	Polyamide (PA)
Ambient conditions	
Service temperature	-40 90 °C (-40 194 °F)
Data for application in c with hazardous areas	onnection
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex de IIC Gb
International approvals	
IECEx approval	IECEx CML 16.0114U
Conformity	
Degree of protection	EN 60529
Usage category	IEC / EN 6094
CE marking	0102

B	
COVE	er-mounted

Contact Blocks -	Dimen	sions								
Mounting	Exterr	nal dime [mm]	ension	M	ounting [mn		Mounting brackets [mm]	DIN mounting rail receptacle [mm]	Mass [g]	Enclosure type
	A	В	С	G	н	Diam. J	N	G3		
cover-mounted	54	37	63	-	-	-	-	-	79	FXL*.CS SR.CS*

**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.

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

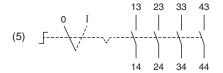
Combination	Combination of 4 Pole Contact Blocks and Actuator Heads									
Actuator head function	Actuator head diameter [mm]	Switching configuration	Contact block	Contacts	Switching diagram see overview	Opera- tor action	Label- ing	Lock- able	Actu- ator type	
rotary actuator	60	2 position changeover with left OFF	52	4x NO	(5)	L-L	0 - 1	yes	S6	
rotary actuator	60	2 position changeover	50	2x NO / 2x NC	(6)	L-L	1 - 11	-	S7	
rotary actuator	60	3 position changeover with center OFF	52	4x NO	(7)	L-L-L	I - 0 - II	yes	S8	
rotary actuator	60	3 position changeover with center OFF	52	4x NO	(7)	S-L-S	I - 0 - II	yes	S8S	

Operator action: L = latching, S = spring return

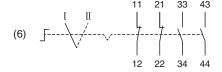
Contact Block	(S				
Туре	Mounting	Number of poles	Contact configuration	Switching diagram	Image
CFP.50	cover-mounted	4	2x NO / 2x NC	11 21 33 43 1 1 1 1 12 22 34 44	
CFP.51	cover-mounted	4	4x NC	11 21 31 41	
CFP.52	cover-mounted	4	4x NO	13 23 33 43 	F
CFP.53	cover-mounted	4	1x NO / 3x NC	11 23 33 43 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
CFP.54	cover-mounted	4	3x NO / 1x NC	11 23 33 43	

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

### **Switching Diagrams**



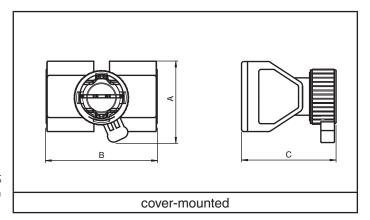
	13	23	33	43
0				
I	Х	Х	Х	Х
	14	24	34	44



	11	21	33	43
I	Х	Х		
II			Х	Х
	12	22	34	44



	13	23	33	43
I	Х	Х		
0				
II			Х	Х
	14	24	34	44



Contact Blocks - Techni	ical 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 specification	ns		
Mechanical life	1000000 switching operations		
Degree of protection	IP20		
Material			
Housing	Polyamide (PA)		
Ambient conditions			
Service temperature	-40 90 °C (-40 194 °F)		
Data for application in c	onnection		
with hazardous areas			
EU-Type Examination Certificate	CML 16 ATEX 3339U		
Marking	Ex de IIC Gb		
International approvals			
IECEx approval	IECEx CML 16.0114U		
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		

Contact Blocks - Dimensions										
Mounting	External dimension Mounting hold [mm] [mm]				Mounting brackets [mm]	DIN mounting rail receptacle [mm]	Mass [g]	Enclosure type		
	Α	В	С	G	н	Diam. J	N	G3		
cover-mounted	57	73.4	65.7	-	-	-	-	-	168	FXL*.CS SR.CS*

see www.pepperl-fuchs.com.

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

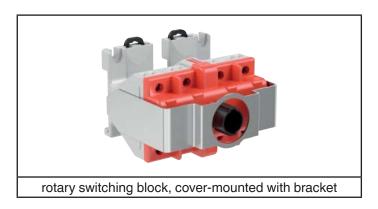
Combination of 4 Pole Rotary Switching Blocks and Actuator Heads									
Switching configuration	Swit- ching block	Contacts	Switching diagram see overview	Operator action	Labeling	Lock- able	Actu- ator type		
2 position changeover, left OFF	60	4x NO	(10)	L-L	0 - 1	yes	Т6		
2 position changeover	61	2x NO / 2x NC	(11)	L-L	I <b>-</b> II	-	T7		
2 position changeover	67	3x NO / 1x NC	(17)	L-L	1 - 11	-	T7		
2 position changeover	68	1x NO / 3x NC	(18)	L-L	1 - 11	-	T7		
3 position changeover, center OFF	62	4x NO	(12)	L-L-L	I - 0 - II	yes	Т8		
3 position changeover, center OFF	64	4x NO	(14)	L-L-L	I - 0 - II	yes	Т8		
3 position changeover, center OFF, both sides spring return	63	4x NO	(13)	S-L-S	I - 0 - II	yes	Т8		
3 position changeover	72	4x NO	(22)	L-L-L	I - 0 - II	-	Т8		
3 position changeover	73	4x NO	(23)	L-L-L	0 - I - II	-	TO		
3 position changeover, right spring return	69	2x NO / 2x NC	(19)	L-L-S	0 - I - II	-	T0		
3 position changeover, right spring return	66	3x NO / 1x NC	(16)	L-L-S	0 - I - II	-	T0		
4 position changeover	65	3x NO / 1x NC	(15)	L-L-L-L	I - II - III - IV	-	Т9		
4 position changeover, right spring return	70	4x NO	(20)	L-L-L-S	I - II - III - IV	-	Т9		
4 position changeover	71	4x NO	(21)	L-L-L-L	I - II - III - IV	-	Т9		

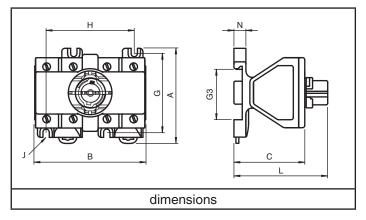
Operator action: L = latching, S = spring return

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

### **Dimensions**





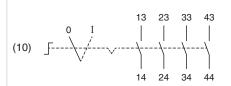


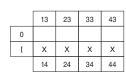
Switching Blocks - Techr	nical Data				
<b>Electrical specifications</b>					
Operating voltage	250 V max.				
Operating current	16 A max.				
Terminal capacity	2.5 mm <sup>2</sup>				
Terminal torque	0.8 Nm				
Usage category	AC12: 12 250 V AC - 16 A AC15: 12 250 V AC - 10 A DC13: 12 110 V DC - 1 A DC13: 12 24 V DC - 1 A				
<b>Mechanical specification</b>	s				
Mechanical life	1000000 switching operations				
Degree of protection	IP20				
Material					
Housing	Polyamide (PA)				
Ambient conditions					
Service temperature -40 90 °C (-40 194 °F)					
Data for application in connection with hazardous areas					
EU-Type Examination Certificate	CML 16 ATEX 3339U				
Marking	Ex de IIC Gb				
International approvals					
IECEx approval	IECEx CML 16.0114U				
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				

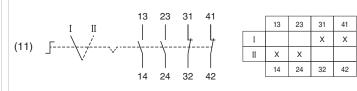
Switching Blocks - Dimensions										
Mounting	External dimension Mounting holes [mm]			Mounting brackets [mm]	DIN mounting rail receptacle [mm]	Mass [g]	Enclosure type			
	Α	В	С	G	н	Diam. J	N	G3		
cover-mounted	63	74	72	-	-	-	-	-	235	FXL*.CS SR.CS*

see www.pepperl-fuchs.com.

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



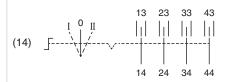




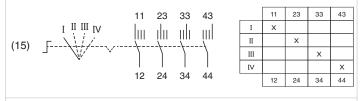


	13	23	33	43
I	Х	Х		
0				
II			Х	Х
	14	24	34	44

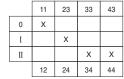
		13	23	33	43		13	23	33	43
(13)	[ 0 II	Ш	Ш	ш	ш	I	Х	Х		
	<del> </del> <del> </del>	0								
	Ψ			II			Х	Х		
		14	24	34	44		14	24	34	44

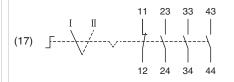


	13	23	33	43
I	Х	Х	Х	Х
0				
II	Х	Х	Х	Х
	14	24	34	44

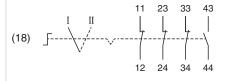




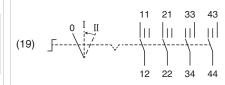




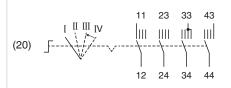
	11	23	33	43
I	Х			
II		Х	Х	Х
	12	24	34	44



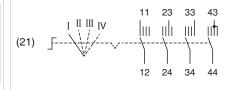




	11	21	33	43
0	Х	Х		
I				
II			Х	Х
	12	22	34	44



11	23	33	43
Х			
		¥	
		¥	Х
12	24	34	44
	Х	X	X X



	11	23	33	43
I	Х			
II				
III		Х		¥
IV			Х	¥
	12	24	34	44



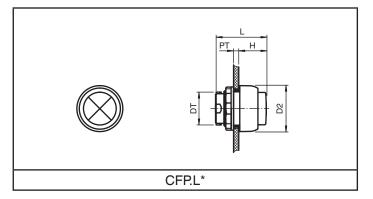
	13	23	31	43
I	Х		¥	
0			¥	
II	Х	Х		
	14	24	32	44



	13	23	33	43
0				
I	Х		Х	
II		Х		Х
	14	24	34	44

### **LED Indicators**

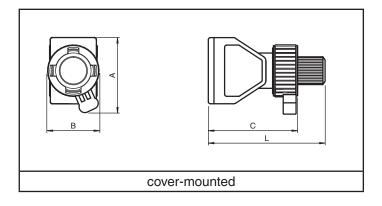
LED Indicators Lenses					
Туре	Lens color	Image			
CFP.LR	red				
CFP.LG	green				
CFP.LO	amber				
CFP.LW	white				
CFP.LB	blue				



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 chazardous areas	onnection with				
EU-Type Examination Certificate	CML 16 ATEX 3339U				
Marking	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.				

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			
39	1 6	30.6	23.6	43	20	use with base-mounted and cover-mounted LED modules	LC* FXL*.CS GR.CS*

LED Modules					
Туре	Mounting	Rated operating voltage [V AC/DC]	Image		
CFP.GI	cover- mounted	10 28, Ex ia			
CFP.GE	cover- mounted	10 28			
CFP.R	cover- mounted	30 250			

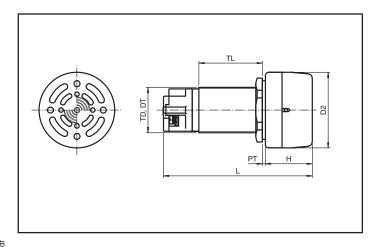


LED Modules - Technical	Data
Electrical specifications	
Operating voltage	250 V max.
Power consumption	2 W max.
Terminal capacity	2.5 mm <sup>2</sup>
Terminal torque	0.8 Nm
Mechanical specification	s
Degree of protection	IP20
Material	
Housing	Polyamide (PA)
Ambient conditions	
Service temperature	-40 90 °C (-40 194 °F)
Data for application in co	nnection with
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex de IIC Gb
Intrinsically safe variant	ts *.NI, *.GI
Marking	Ⅲ 1 G Ex ia IIC Ga
Voltage U	28 V
Current I	93 mA
Power P	0.651 W
Internal capacitance C	0 μF
Internal inductance L	0 mH
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.

LED Modules - Dimensions											
Mounting	Exte		dimens m]	sion	Mounting holes [mm]		nrackets		DIN rail receptacle [mm]	Mass	Enclosure
	A	В	С	L	G	н	Diam. J	N	G3	[g]	type
cover-mounted	54	37	63	88	-	-	-	-	-	71	FXL*.CS SR.CS*

### **Buzzer**

Buzzer Modules						
Туре	Function	Color	Rated operating voltage [V AC/DC]	lmage		
CFP. BUZRF1	flashing buzzer	red	10 28			
CFP. BUZRF2	flashing buzzer	red	30 250			
CFP. BUZKS1	buzzer	black	10 28			
CFP. BUZKS2	buzzer	black	30 250			



250 V max.
1 W max.
2.5 mm <sup>2</sup>
0.8 Nm
60 dB at 30 cm
s
IP66
Polyamide (PA)
-40 55 °C (-40 131 °F)
-40 90 °C (-40 194 °F)
nnection with
CML 16 ATEX 3339U
Ex e ib mb IIC Gb Ex ib tb IIIC Db
IECEx CML 16.0114U
EN 60529
0102
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.

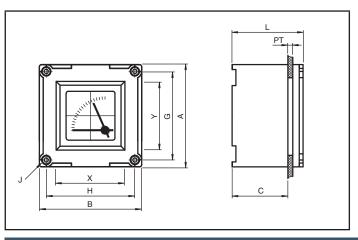
Buzzer - Dimensions											
Actuator head diameter [mm]	Panel wall thickness [mm]	Diameter thru-hole [mm]	Length outside enclosure [mm]	Total length [mm]	Thread size	Thread length [mm]	Mass [g]	Mounting	Enclosure type		
D2	PT	DT	н	L	TD	TL					
50	1 35	30.6	31	98.5	M30 x 1.5	42	125	cover- mounted	LC*, LR* GR.CS* SR.CS* FXL*.CS		

### **Ammeters**

Ammeter Modules								
Туре	Type							
CFP.AA	0 1 A	scale per specification						
CFP.AB	0 5 A	scale per specification						
CFP.AC	4 20 mA	scale 4 20 / 40 mA						
CFP.AD	0 20 mA	scale 0 20 / 40 mA						

Ammeter Scales							
Scales	Type Code						
0 1 / 5 A	SA						
0 2.5 / 12.5 A	SB						
0 5 / 25 A	SC						
0 10 / 50 A	SD						
0 15 / 75 A	SE						
0 20 / 100 A	SU						
0 25 / 125 A	SF						
0 30 / 150 A	SG						
0 40 / 200 A	SH						
0 50 / 250 A	SI						
0 60 / 300 A	SJ						
0 75 / 375 A	SK						
0 100 / 500 A	SL						

Scales	Type Code
0 150 / 750 A	SM
0 200 / 1000 A	SN
0 250 / 1250 A	SO
0 300 / 1500 A	SP
0 400 / 2000 A	SQ
0 500 / 2500 A	SR
0 600 / 3000 A	SS
0 1000 / 5000 A	ST
Scale as per specification	SZ



Ammeter Modules - Tech	nical Data
<b>Electrical specifications</b>	
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
<b>Mechanical specification</b>	s
Degree of protection	IP66
Mounting	Meter window mounting kit
Material	
Housing	Polyamide (PA)
Ambient conditions	
Service temperature	-40 95 °C (-40 203 °F)
Data for application in co	nnection with
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	<ul><li>II 2 G</li><li>Ex e IIC Gb</li></ul>
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.

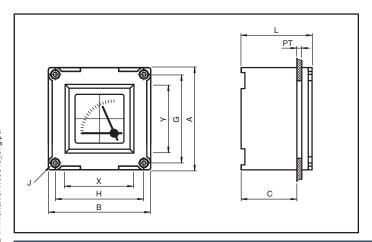
Meter Window Mounting Kits						
Туре	Window including	Enclosure type				
CFP.WB	base mounting kit	L*, GR.CS*				
CFP.WL	cover mounting kit	FXL*.CS, SR.CS*				

Amn	Ammeter Modules - Dimensions										
External dimension [mm]				ving w [mm]	Panel wall thickness [mm]	Mounting holes [mm]		Mass	Enclosure type		
A	В	С	L	X	Y	PT	G	н	Diam. J	[g]	Lileiosule type
70	70	59	75	54	50	1 6	63	63	3.5	186	LC*, LR* FXL*.CS, SR.CS* GR.CS

### **Voltmeters**

Voltmeter Modules							
Туре	Rated operating voltage	lmage					
CFP.V6	0 10 V						
CFP.V1	0 25 V						
CFP.V2	0 40 V						
CFP.V7	0 50 V						
CFP.V8	0 100 V						
CFP.V9	0 120 V						
CFP.V3	0 150 V						
CFP.V4	0 250 V						
CFP.V5	0 500 V						

Voltmeter Scales	
	included in module



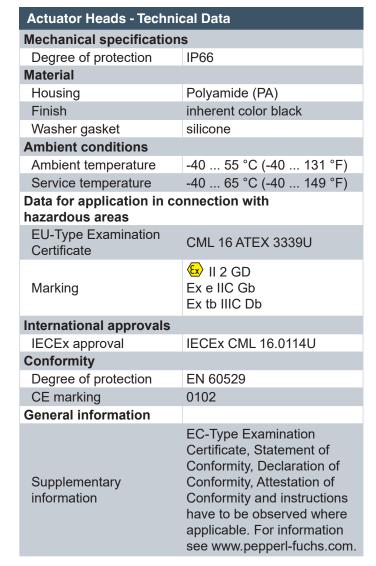
Voltmeter Modules - Tec	hnical Data
<b>Electrical specifications</b>	
Operating voltage	500 V AC
Accuracy class	1.5
Terminal capacity	2.5 mm <sup>2</sup>
Terminal torque	0.8 Nm
Mechanical specification	s
Degree of protection	IP66
Mounting	Meter window mounting kit
Material	
Housing	Polyamide (PA)
Ambient conditions	
Service temperature	-40 95 °C (-40 203 °F)
Data for application in co	onnection with
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	Ex e IIC Gb
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.

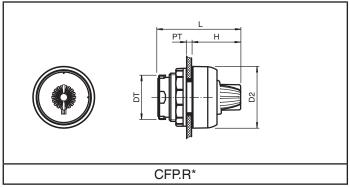
Meter Window Mounting Kits							
Туре	Window including	Enclosure type					
CFP.WB	base mounting kit	L*, GR.CS*					
CFP.WL	cover mounting kit	FXL*.CS, SR. CS*					

Voltr	Voltmeter Modules - Dimensions										
External dimension [mm]				ving w [mm]	Panel wall thickness [mm]	Mounting holes [mm]		Mass	Enclosure type		
A	В	С	L	x	Y	PT	G	н	Diam. J	[g]	Eliciosure type
70	70	59	75	54	50	1 6	63	63	3.5	186	LC*, LR* FXL*.CS, SR.CS* GR.CS*

### **Potentiometers**

Potentiometer Actuator Heads						
Туре	Enclosure type	Labeling	Image			
CFP.R2	FXL*.CS SR.CS*	0 10				

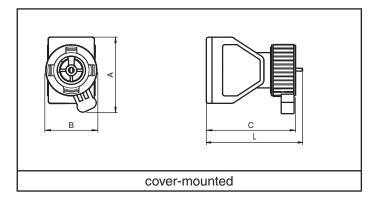




Potentiometer Actuator Heads - Dimensions							
Actuator head diameter [mm]	Panel wall thickness [mm]	Diameter thru-hole [mm]	Length outside enclosure [mm]	Total length [mm]	Mass [g]	Mounting	
D2	PT	DT	H	L			
39	1 6	30.6	30.5	50.5	27	use with base-mounted and cover-mounted potentiometer modules	

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Potentiometer Modules							
Туре	Mounting	Range [kΩ]	Image				
CFP.4	cover-mounted	0 0.5					
CFP.6	cover-mounted	0 1					
CFP.7	cover-mounted	0 2					
CFP.8	cover-mounted	0 5					
CFP.9	cover-mounted	010					



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		
<b>Mechanical specification</b>	s		
Degree of protection	IP20		
Material			
Housing	Polyamide (PA)		
Ambient conditions			
Service temperature	-55 90 °C (-67 194 °F)		
Data for application in co hazardous areas	nnection with		
EU-Type Examination Certificate	CML 16 ATEX 3339U		
Marking	II 2 G Ex de IIC Gb		
International approvals			
IECEx approval	IECEx CML 16.0114U		
Conformity			
Degree of protection	EN 60529		
CE marking	0575		
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.		

Potentiometer Modules - Dimensions											
Mounting	Exte		dimens m]	sion	Mounting holes [mm]		Mounting DIN rail brackets receptacle [mm] [mm]			Enclosure	
	A	В	С	L	G	н	Diam. J	N	G3	[9]	type
cover-mounted	54	37	63	65	-	-	-	-	-	78	FXL*.CS SR.CS*

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### **Operating Elements Accessories**

Accessory	!	
Туре	Description	Image
CFP.BK	Blanking plug	EX
CFP.ZT	Extra small label holder with printed label as per specification	
CFP.ZS	Small label holder with printed label as per specification	
CFP.ZL	Large label holder with printed label as per specification	
CFP.ZEB	Emergency stop label, yellow, round	0
CFP. ZEB.V2	Emergency stop label, yellow, round, engraved NOT HALT EMERGENCY STOP	THE REPORT OF
CFP.TP	Locknut spanner, plastic	

Accessory	<u>'</u>	
Туре	Description	Image
CFP.ZB CFP.ZBR (1) (8)	Protective flap for small actuators, plastic, padlockable	
CFP.ZJ CFP.ZJR (1) (8)	Protective pushbutton flap with continuous operation, plastic, padlockable	
CFP.ZH (3)	Protective flap for double pushbutton, stainless steel, padlockable	
CFP.ZA CFP.ZAR (4) (8) (9)	Protective flap, plastic	
CFP.ZP CFP.ZPR (5) (8)	Emergency stop shroud, plastic, padlockable, supplied with padlock and 2 keys	
CFP.ZDT (6) (9)	Protective flap, stainless steel	h h
CFP.ZCT (7)	Protective flap, stainless steel, padlockable	

- (1) CFP.ZB\* are designed for use with CFP.P\* pushbuttons, CFP.I\* illuminated pushbuttons, CFP.N\* small switches, CFP.R\* potentiometer actuators
- (2) CFP.ZJ\* are designed for use with CFP.P\* pushbuttons
- (3) CFP.ZH is designed for use with CFP.D\* double pushbuttons
- (4) CFP.ZA\* are designed for use with CFP.S\* large switches, CFP.E\* emergency stops
- (5) CFP.ZP\* are designed for use with CFP.E4 emergency stop buttons, the shroud can either be used without the bar to avoid accidental operation or with the bar to padlock in the operated position
- (6) CFP.ZDT is designed for use with both CFP.E4 and CFP.E5 emergency stop buttons
- (7) CFP.ZCT is designed for use with both CFP.E4 and CFP.E5 emergency stop buttons. The shroud is used to padlock the emergency stop in the operated position and when not in use, the flap should be left open
- (8) Accessories that have two options, use a R at the end of the typecode for use with rail mounted contact blocks and those without R are used for cover mounted contact blocks only
- (9) Shrouds and flaps potentially prevent free and unimpaired access to an emergency stop button. These products may therefore only be used in applications where their use has been assessed and not found to cause unacceptable risk to health and safety of persons or damage to the protected machinery.