



## Control Units Ex e, Polyamide

### LRP\*. \*

- Polyamide (PA) enclosure
- Installation in Zone 1, Zone 2, Zone 21 and Zone 22
- Ex db eb, Ex ib and Ex tb certified
- Up to 5 operators per enclosure
- Customizable configuration of operators, contact modules and cable entries as per specification
- Wide range of labels and accessories available
- 5 enclosure size options
- Degree of protection IP66
- Installation in portrait, landscape on request

### Control Units Ex e, Polyamide



### Function

The versatile control units of the LRP series are available pre-configured off-the-shelf or flexibly customized with a great variety of operating elements, cable glands and accessories.

The polyamide enclosures are available in two distinct styles:

- the compact series offers up to three control or indication elements
- the flexible series offers two additional enclosures with increased flexibility

Both series compliment each other and offer users an option for all eventualities.

The comprehensive range of control functions allow the configuration of each control unit to exactly meet any application requirements and ensure optimal space efficiency.

Durable materials and components of high quality, such as stainless steel A4 (V4A) fixings allow the control units to be used in harsh ambient conditions.

### Technical Data

#### Electrical specifications

Operating voltage	400 V max.
Operating current	16 A max.
Terminal capacity	2.5 mm <sup>2</sup>
Terminal torque	0.8 Nm
Function	see data table

#### Mechanical specifications

Enclosure range	LRP
Enclosure cover	fully detachable
Cover fixing	
Screws	M4 stainless steel combination Phillips and slotted screw
Number	4
Tightening torque	1.5 Nm
Degree of protection	IP66
Cable entry	cable glands as per specification
Number of cable entries	see data table
Defined entry area	face A and face B
Material	
Enclosure	Polyamide (PA)
Finish	inherent color black
Seal	one piece closed cell silicone
Mass	see data table
Dimensions	see data table
Tightening torque	
Nut torque at enclosure (SW1)	see datasheets of cable glands

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## Technical Data

Mounting	see data table
Grounding	2.5 mm <sup>2</sup> grounding terminal
<b>Ambient conditions</b>	
Ambient temperature	-40 ... 55 °C (-40 ... 131 °F) -50 °C (-58 °F) on request
<b>Data for application in connection with hazardous areas</b>	
EU-type examination certificate	CML 16 ATEX 3009X
Marking	Ⓔ II 2 GD Ex db eb ib mb IIC T* Gb Ex tb IIIC T** °C Db T4/T130 °C @ Ta +55 °C T6/T80 °C @ Ta +40 °C on request
<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
<b>Conformity</b>	
Degree of protection	EN 60529
Usage category	IEC / EN 60947
CE marking	0080 or 0102, see type label
<b>General information</b>	
Ordering information	For standard configured units please see pdf datasheet. 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	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. 5 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	9	10	11								
LR	*	*	.	*	.	***	.	***	.	***	.	***	.	***	.	*	.	*
LR	P	2	.	D	.	PGMX	.	E4MX	.	.	.	.	.	.	.	B	.	1

Example: LRP2.D.PGMX.E4MX.B.1

Control Unit, polyamide enclosure for two control functions, portrait orientation.

Upper function: pushbutton green, base-mounted contact block with 1x NO / 1x NC contacts.

Lower function: twist-to-release mushroom button, red, base-mounted contact block with 1x NO / 1x NC contacts.

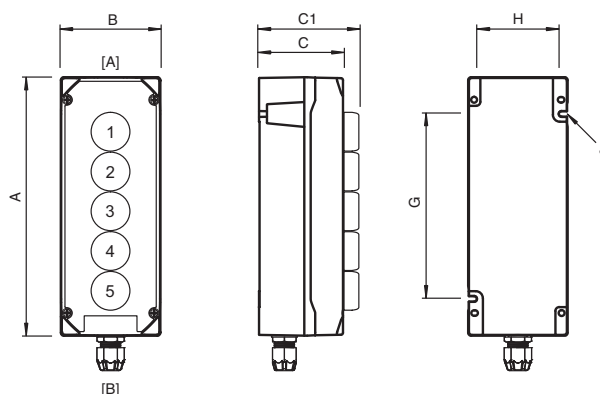
Cable entry configuration: bottom face cable gland M20 polyamide. Type of protection Ex db eb and Ex tb.

<b>1</b>	<b>Series</b>
LR	control unit
<b>2</b>	<b>Material</b>
P	polyamide (PA)
<b>3</b>	<b>Enclosure variant</b>
1 ... 5L	enclosure size, see dimensions data table
<b>4</b>	<b>Enclosure orientation</b>
B	landscape
D	portrait
<b>5</b>	<b>Function 1</b>
xxx	see operating elements type code
<b>6</b>	<b>Function 2</b>
xxx	see operating elements type code

## Type Code

7	
<b>Function 3</b>	
xxx	see operating elements type code
8	
<b>Function 4</b>	
xxx	see operating elements type code
9	
<b>Function 5</b>	
xxx	see operating elements type code
10	
<b>Entry configuration / cable glands</b>	
A ... R	standard entry configurations, see cable entries table
X	no entries
Z	customized entries
11	
<b>Type of explosion protection</b>	
1	Ex db eb, Ex tb
3	Ex i*, Ex tb
5	mixed protection, e.g.: Ex db eb ib tb

## Dimensions and Enclosure Details



Enclosure type	Operating elements size and quantity	External dimensions [mm]				Mounting [mm]			Mass approx. [kg]
		A	B	C	C1	G	H	J	
LRP1.*	1x small / 1x large	90	88	85	134.5	50	72.5	5.6	0.7
LRP2.*	2x small	132	88	85	134.5	93	72.5	5.6	0.7
LRP2L.*	2x small / 1x large (4-pole)	160	100	85	134.5	97	88	5.6	0.9
LRP3.*	3x small	178	88	85	134.5	136	72.5	5.6	1
LRP5L.*	5x small / 2x large	260	100	85	134.5	186	88	5.6	1.2

Dimension C1 is maximum, it will differ according to operating elements configuration

## Cable Entries Quantity per Size

Type Code	Cable entries Face A			Cable entries Face B		
	Quantity	Type	Clamping range	Quantity	Type	Clamping range
*.B.*	-	-	-	1	CG.PEDS1.M20.*	6 ... 12 mm
*.C.*	-	-	-	1	CG.PEDS1.M25.*	9 ... 17 mm
*.E.*	1	SP.PE.M20.*	-	1	CG.PEDS1.M20.*	6 ... 12 mm
*.F.*	1	SP.PE.M25.*	-	1	CG.PEDS1.M25.*	9 ... 17 mm

For further configurations please contact Pepperl+Fuchs

## Standard Variants

Type	Function	Color	Labeling	Operator action	Number of poles	Contact configuration	Switching configuration	Electrical specification	Switching diagram	Image example
LRP1.D. PGMX.*	pushbutton	green (A)	I	spring return	2	1x NO / 1x NC	-	(1)		
LRP1.D. DMMX.*	double pushbutton	red / green (B)	0 - I	spring return	2	1x NO / 1x NC	-	(1)		
LRP1.D. E4MX.*	mushroom button 40 mm	red	-	latching, twist to release	2	1x NO / 1x NC	-	(1)		
LRP1.D. E4MZAR.*	mushroom button, with plastic lid	red	-	latching, twist to release	2	1x NO / 1x NC	-	(1)		
LRP1.D. E4MZPR.*	mushroom button, with plastic shroud, padlockable	red	-	latching, twist to release	2	1x NO / 1x NC	-	(1)		
LRP1.D. JRMX.*	mushroom button, lockable	red	-	latching, key release	2	1x NO / 1x NC	-	(1)		
LRP1.D. S1OX.*	control switch, large, with shroud, padlockable in '0'	black	0 - I	engage - engage	2	2x NO	2 position changeover with left OFF	(1)		
LRP1.D. BUZKS1.*	buzzer	black	-	-	-	-	-	(4)		
LRP1.D. BUZRF1.*	flashing buzzer	red	-	-	-	-	-	(4)		

## Standard Variants

Type	Function	Color	Labeling	Operator action	Number of poles	Contact configuration	Switching configuration	Electrical specification	Switching diagram	Image example
LRP2.D. PGMX. PRMX.*	pushbutton	green (B)	I	spring return	2	1x NO / 1x NC	-	(1)		
	pushbutton	red (B)	0	spring return	2	1x NO / 1x NC	-	(1)		
LRP2.D. PGMX. E4MX.*	pushbutton	green (A)	I	spring return	2	1x NO / 1x NC	-	(1)		
	mushroom button	red	-	latching, twist to release	2	1x NO / 1x NC	-	(1)		
LRP2.D. DMMX. E4MX.*	double pushbutton	red / green (B)	I	spring return	2	1x NO / 1x NC	-	(1)		
	mushroom button	red	-	latching, twist to release	2	1x NO / 1x NC	-	(1)		
LRP3.D. PGMX. PRMX. E4MX.*	pushbutton	green (B)	I	spring return	2	1x NO / 1x NC	-	(1)		
	pushbutton	red (B)	0	spring return	2	1x NO / 1x NC	-	(1)		
	mushroom button	red	-	latching, twist to release	2	1x NO / 1x NC	-	(1)		
LRP3.D. LRLX. DMMX. E4MX.*	LED indicator	red	-	-	-	-	-	(3)		
	double pushbutton	red / green (B)	0 - I	spring return	2	1x NO / 1x NC	-	(2)		
	mushroom button	red	-	latching, twist to release	2	1x NO / 1x NC	-	(2)		

### Standard Variants

Type	Function	Color	Labeling	Operator action	Number of poles	Contact configuration	Switching configuration	Electrical specification	Switching diagram	Image example

Reference in standard variants	Usage category	Rated operating voltage	Rated operating current
(2)	AC12 - 12 ... 250 V AC - 6 A AC15 - 12 ... 250 V AC - 6 A DC13 - 12 ... 110 V DC - 1 A	-	-
(4)	-	10 ... 28 V AC/DC	-
<b>Labeling</b>			

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**Configurations - Types of Operating Elements see Overleaf**

**Configurations with 1 function**



**Configurations with 2 functions**



**Configurations with 3 functions**




**Configurations with 4 or 5 functions**




Release date: 2023-03-08 Date of issue: 2023-03-08 Filename: t211400\_eng.pdf

## 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		

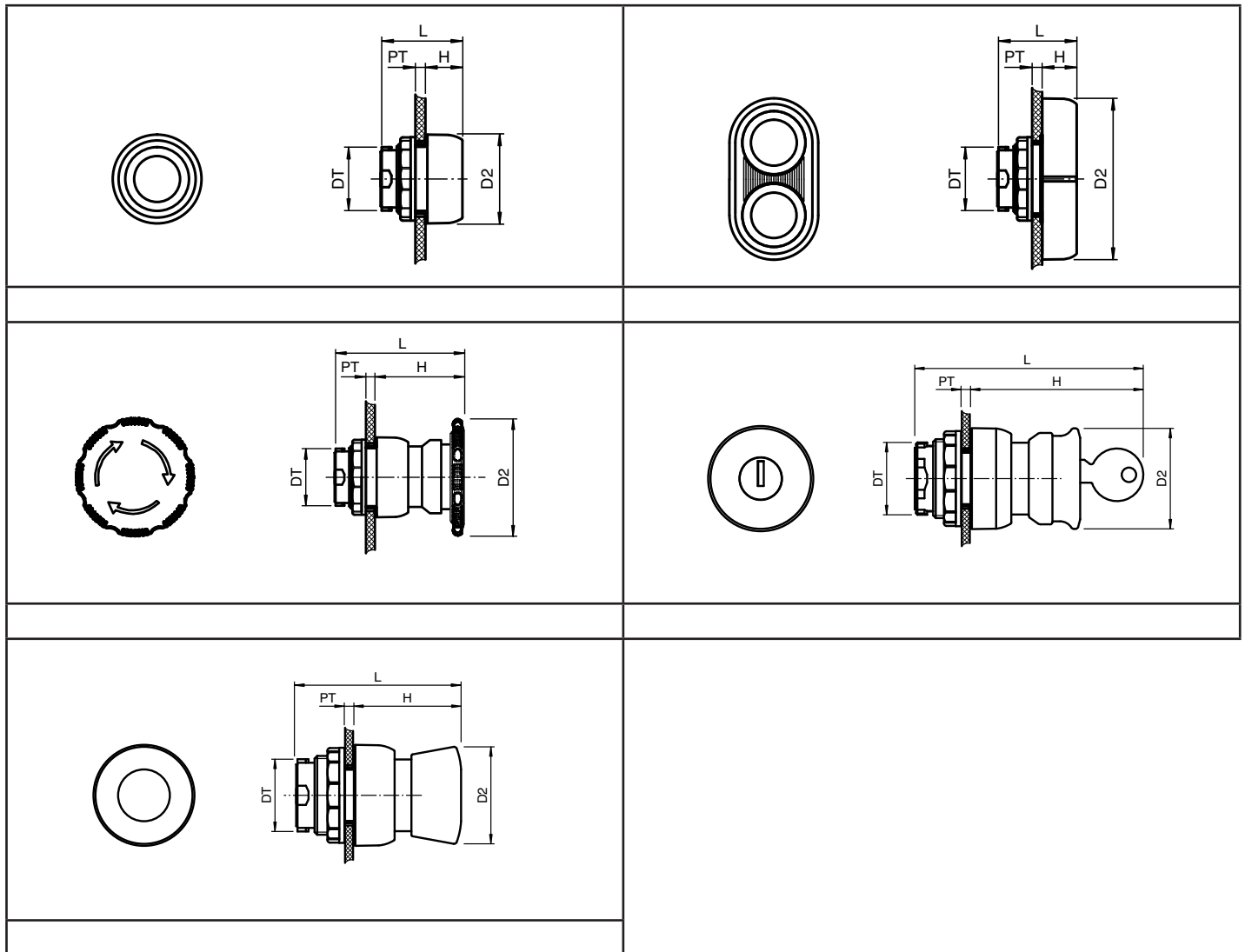
### Other Pushbuttons Actuator Heads

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



## 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

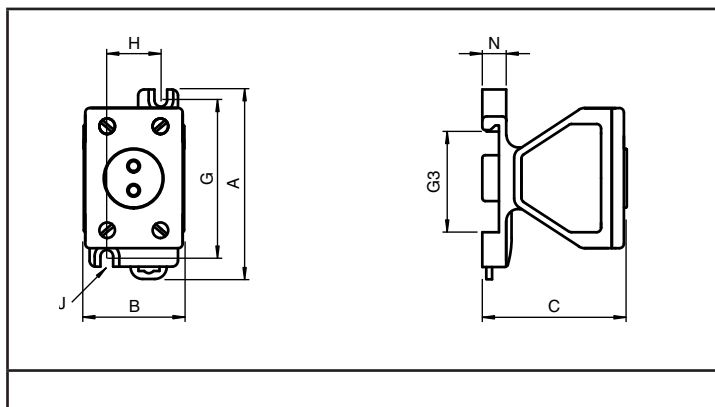
#### General information

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

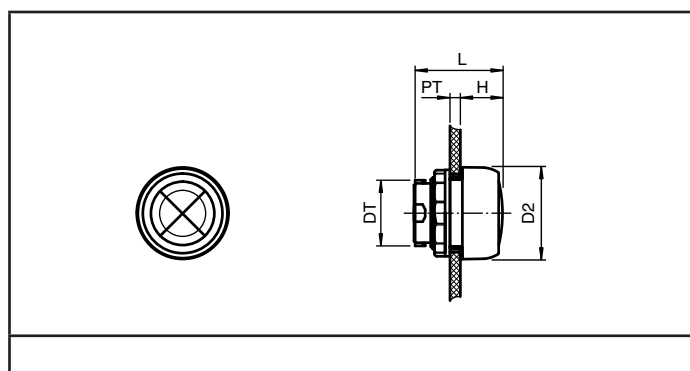
Mounting	External dimension [mm]			Mounting holes [mm]			Mounting brackets [mm]	DIN mounting rail receptacle [mm]	Mass [g]	Enclosure type
	A	B	C	G	H	Diam. J	N	G3		




## 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
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## 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

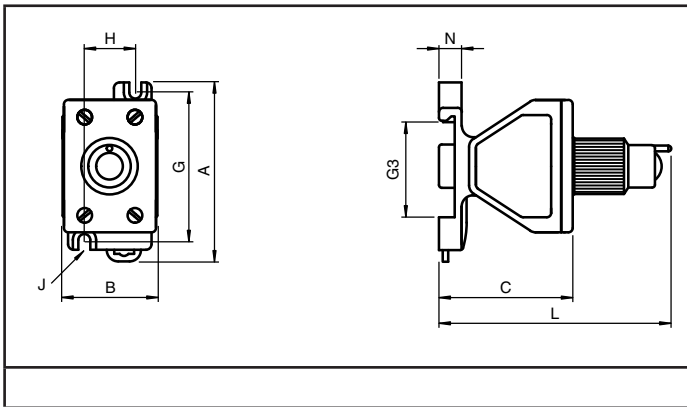
## LED Contact Modules

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
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## Material

## Ambient conditions

## Data for application in connection with hazardous areas

Marking	II 2 G Ex de IIC Gb
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Marking	II 1 G Ex ia IIC Ga
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Current I <sub>i</sub>	93 mA
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Internal capacitance C <sub>i</sub>	0 μF
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## International approvals

## Conformity

Usage category	IEC / EN 60947-3
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


























## LED Modules - Technical Data

## General information

## Supplementary information

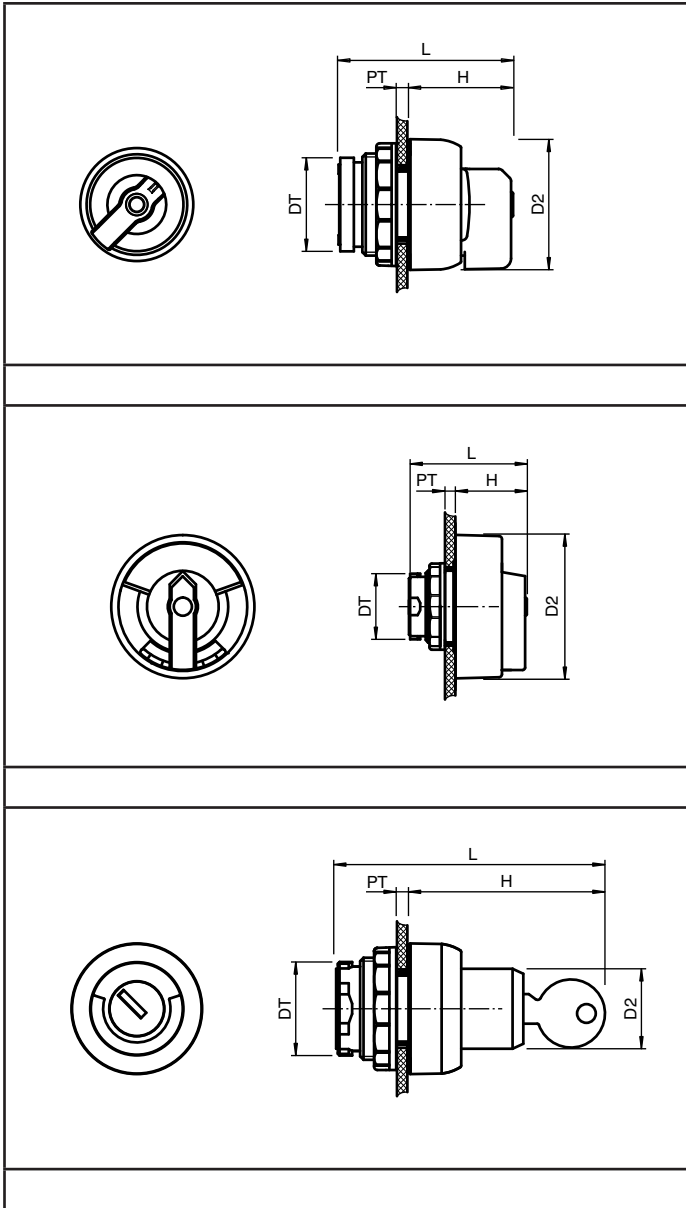
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## Control Switches Actuator Heads, for use with LCP\*, LCS\* and LR\*

Control Switch Actuator Heads								
Type	Function	Diameter [mm]	Switching configuration	Switching diagram	Operator action	Labeling	Lockable	Image
								
CFP.N2	rotary actuator	39	2 position changeover		L - L	I - II	-	
								
CFP.N3S	rotary actuator	39	3 position changeover with center OFF		S - L - S	I - 0 - II	-	
								
CFP.S1	rotary actuator	60	2 position changeover with left OFF		L - L	0 - I	yes	
								
CFP.S3	rotary actuator	60	3 position changeover with center OFF		L - L - L	I - 0 - II	yes	
								
CFP.S5	rotary actuator	60	3 position changeover with left OFF		L - L - L	0 - I - II	yes	
								
CFP.K1S	key switch rotary actuator	39	2 position changeover with left OFF		L - S	0 - I	yes	
								
CFP.K3S	key switch rotary actuator	39	3 position changeover with center OFF		S - L - S	I - 0 - II	yes	

**Control Switches Actuator Heads**

**Actuator Heads - Dimensions**



**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
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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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CFPS*	60	1 ... 6	30.6	30.5	50.5	46	
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Release date: 2023-03-08 Date of issue: 2023-03-08 Filename: 1211400\_eng.pdf

## Control Switches, 2 Pole Contact Blocks, for use with LCP\*, LCS\* and LR\*

## Combination of 2 Pole Contact Blocks and Actuator Heads

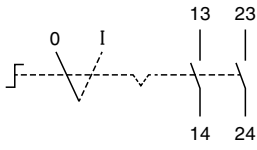
Actuator head function	Actuator head diameter [mm]	Switching configuration	Contact block	Contacts	Switching diagram see overview	Operator action	Labeling	Lockable	Actuator type
rotary actuator	39	2 position changeover	M	1x NO / 1x NC	(2)	L - L	I - II	-	N2
rotary actuator	39	3 position changeover with center OFF	O	2x NO	(4)	S - L - S	I - 0 - II	-	N3S
rotary actuator	60	2 position changeover with left OFF	O	2x NO	(1)	L - L	0 - I	yes	S1
rotary actuator	60	3 position changeover with center OFF	O	2x NO	(4)	L - L - L	I - 0 - II	yes	S3
rotary actuator	60	3 position changeover with left OFF	M	1x NO / 1x NC	(3)	L - L - L	0 - I - II	yes	S5
key switch rotary actuator	39	2 position changeover with left OFF	O	2x NO	(1)	L - S	0 - I	yes	K1S
key switch rotary actuator	39	3 position changeover with center OFF	O	2x NO	(4)	S - L - S	I - 0 - II	yes	K3S

## Contact Blocks

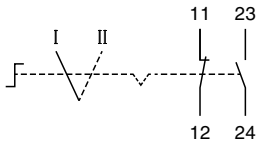
Type	Mounting	Number of poles	Contact configuration	Switching diagram	Image
CFPC	base-mounted	2	2x NC		

**Control Switches, 2 Pole Contact Blocks, for use with LCP\*, LCS\* and LR\***

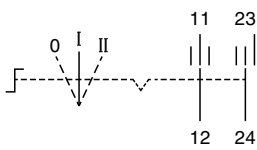
**Switching Diagrams**



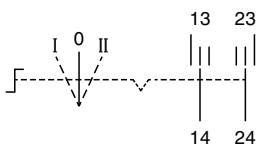
	13	23
0		
I	X	X
	14	24



	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

**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**

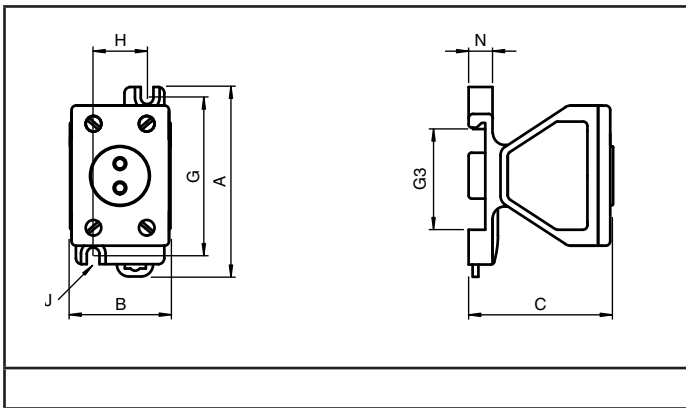
IECEx approval	IECEx CML 16.0114U
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**Conformity**

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: 2023-03-08 Date of issue: 2023-03-08 Filename: 1211400\_eng.pdf

**Control Switches, 4 Pole Contact Blocks, for use with LCP\*, LCS\* and LR\***

**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	-	S2
rotary actuator	60	3 position changeover with center OFF	03	4x NO	(7)	S - L - S	I - 0 - II	yes	S3S

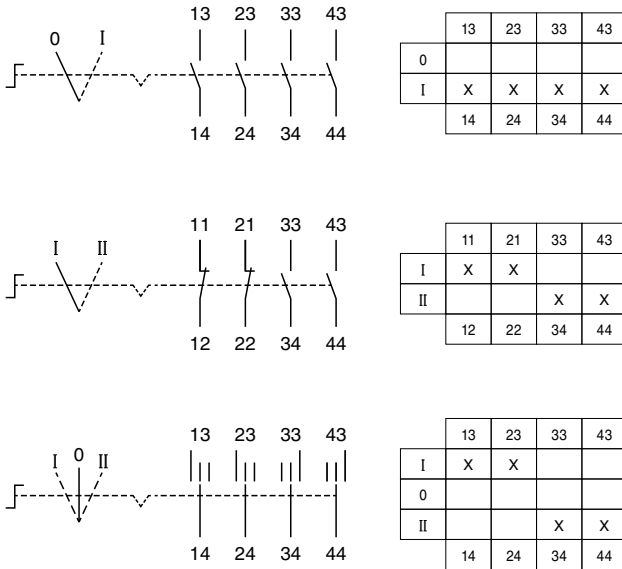
**Contact Blocks**

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		

Release date: 2023-03-08 Date of issue: 2023-03-08 Filename: i211400\_eng.pdf

**Control Switches, 4 Pole Contact Blocks, for use with LCP\*, LCS\* and LR\***

**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**

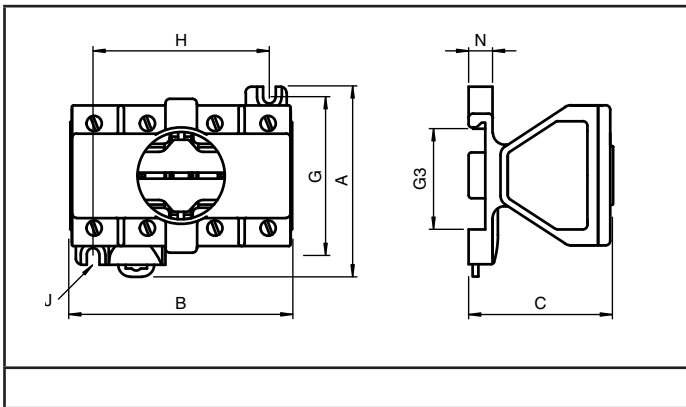
IECEx approval	IECEx CML 16.0114U
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**Conformity**

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		

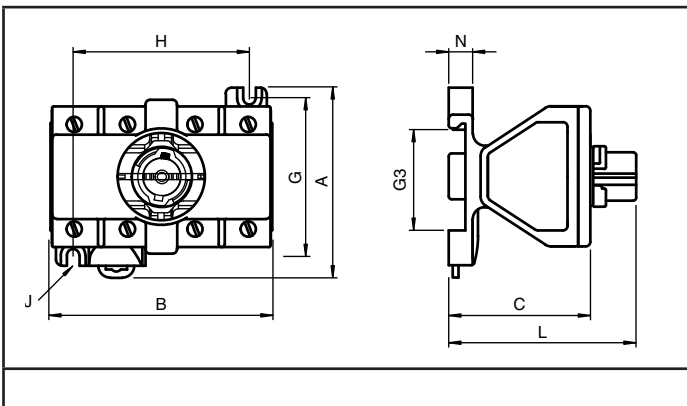
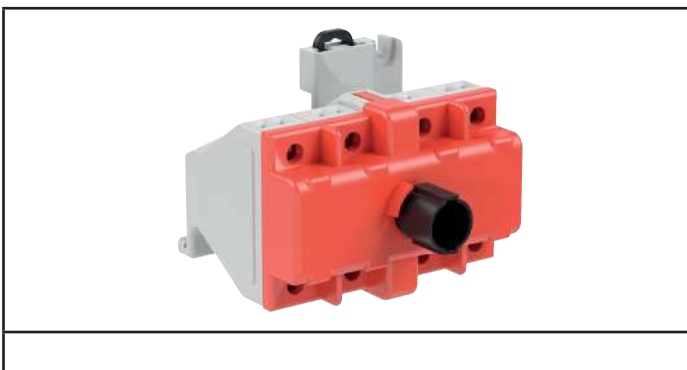
Release date: 2023-03-08 Date of issue: 2023-03-08 Filename: 1211400\_eng.pdf

**Control Switches, 4 Pole Rotary Switching Blocks, for use with LCP\*, LCS\* and LR\***

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	-	T2
2 position changeover	18	1x NO / 3x NC	(18)	L - L	I - II	-	T2
3 position changeover, center OFF	14	4x NO	(14)	L - L - L	I - 0 - II	yes	T3
3 position changeover	22	4x NO	(22)	L - L - L	I - 0 - II	-	T3
3 position changeover, right spring return	19	2x NO / 2x NC	(19)	L - L - S	0 - I - II	-	T5
4 position changeover	15	3x NO / 1x NC	(15)	L - L - L - L	I - II - III - IV	-	T4
4 position changeover	21	4x NO	(21)	L - L - L - L	I - II - III - IV	-	T4

## Control Switches, 4 Pole Rotary Switching Blocks, for use with LCP\*, LCS\* and LR\*

## 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
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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

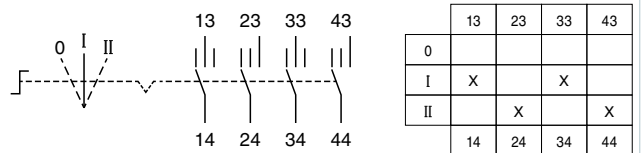
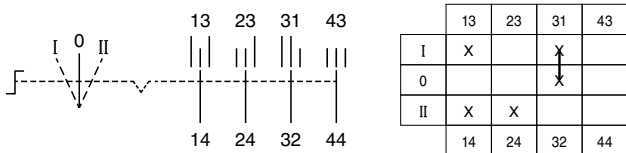
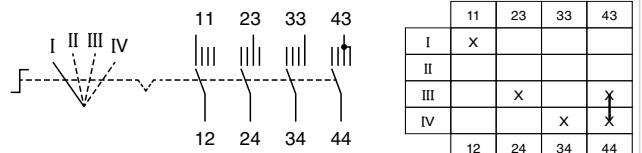
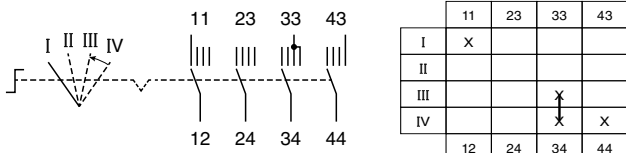
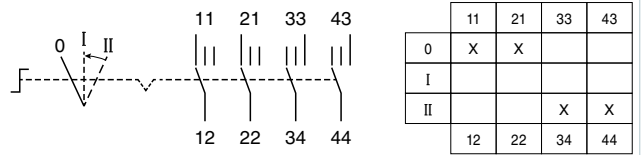
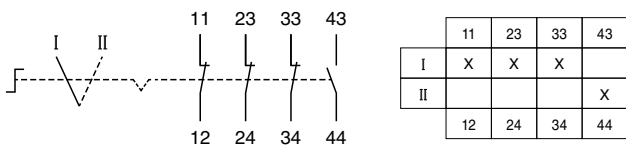
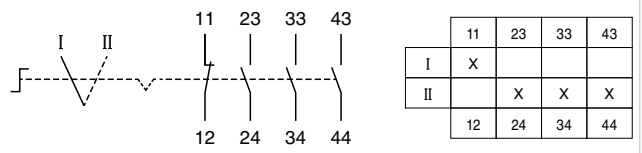
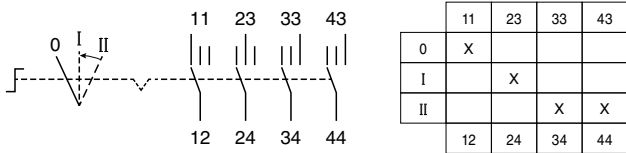
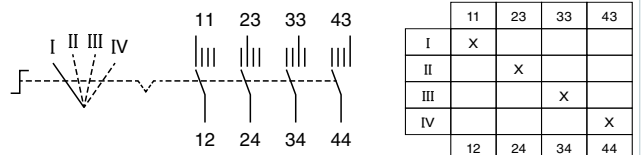
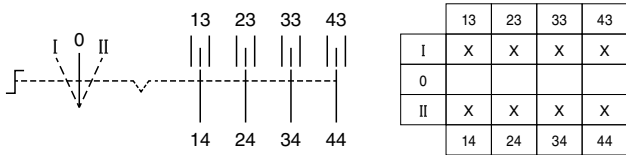
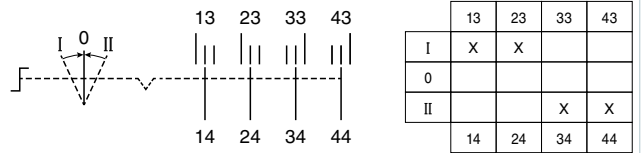
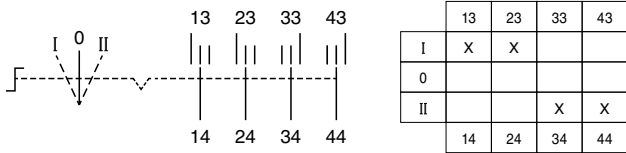
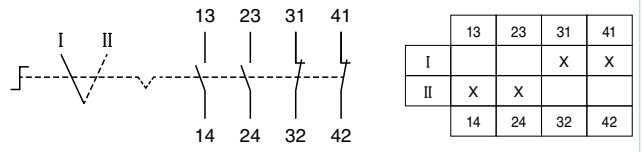
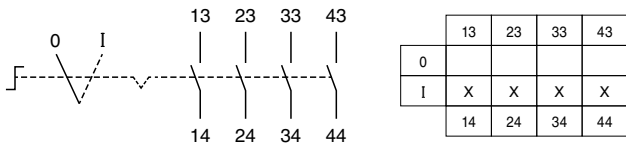
## General information

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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## 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		

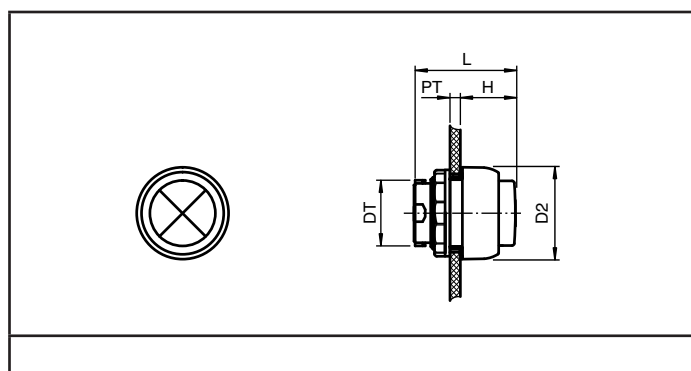
**Control Switches, 4 Pole Rotary Switching Blocks, Switching diagrams**



Release date: 2023-03-08 Date of issue: 2023-03-08 Filename: t211400\_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).

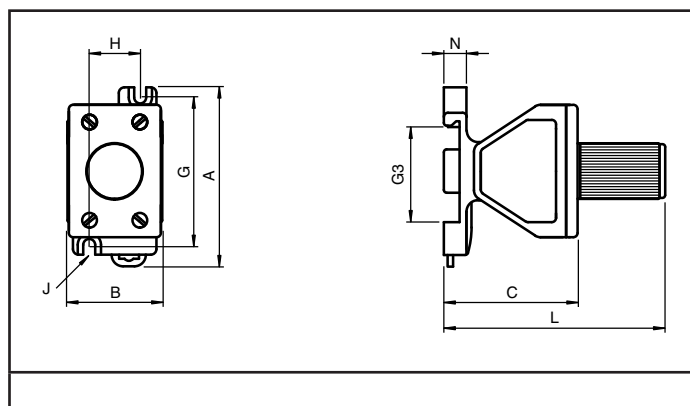
## LED Heads - Dimensions

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				
								N	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

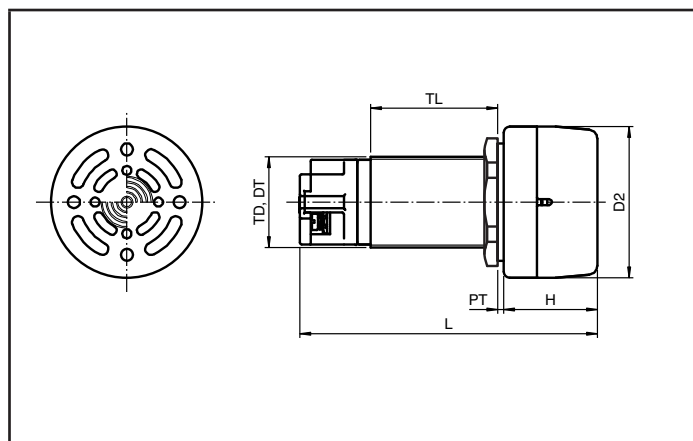
IECEx approval	IECEx CML 16.0114U
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## Conformity

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			

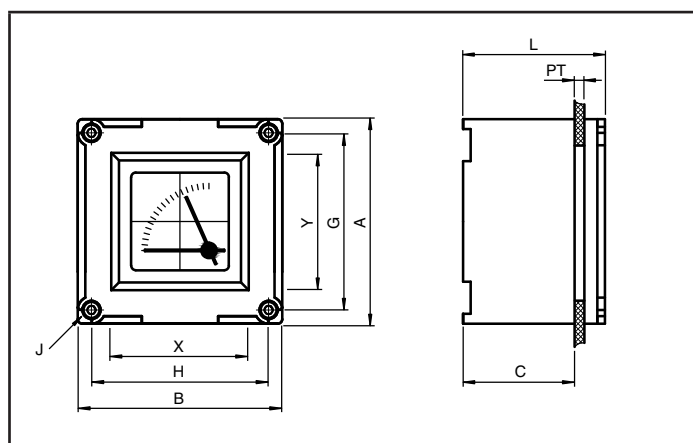
## Ammeters

## 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

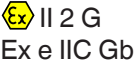
Scales	Type Code		
0 ... 2.5 / 12.5 A	SB	0 ... 200 / 1000 A	SN
0 ... 10 / 50 A	SD	0 ... 300 / 1500 A	SP
0 ... 20 / 100 A	SU	0 ... 500 / 2500 A	SR
0 ... 30 / 150 A	SG	0 ... 1000 / 5000 A	ST
0 ... 50 / 250 A	SI		
0 ... 75 / 375 A	SK		



## 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)
Ambient conditions	
Service temperature	-40 ... 95 °C (-40 ... 203 °F)
Data for application in connection with hazardous areas	
EU-Type Examination Certificate	CML 16 ATEX 3339U
Marking	
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 and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .	

## Meter Window Mounting Kits

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

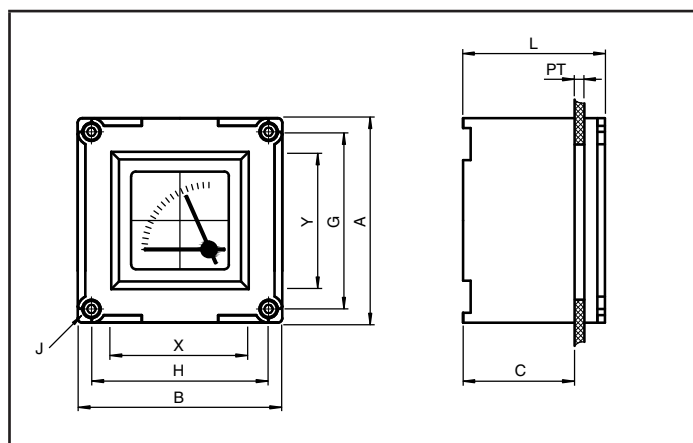
## Voltmeters

### 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 - 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		

### 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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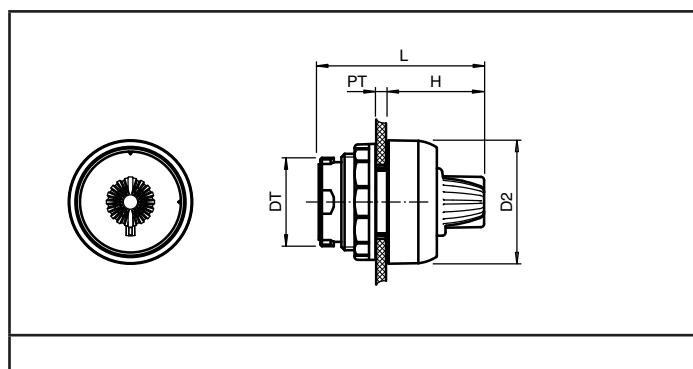
### Meter Window Mounting Kits

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

## 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


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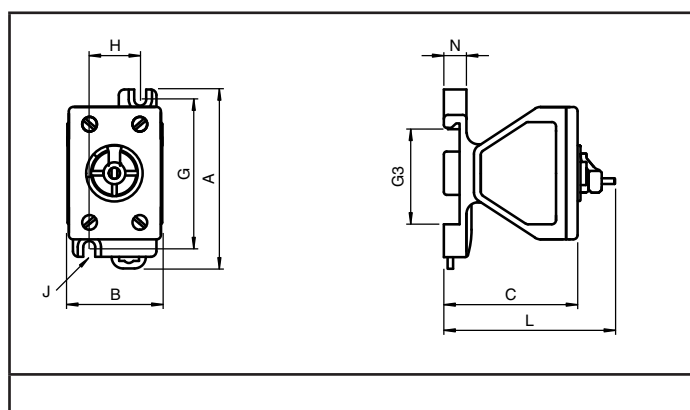
### Potentiometer Actuator Heads - Dimensions

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	N	G3		

## 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	
		