



Control Stations Ex e, Stainless Steel FXLS*.CS

- Stainless Steel enclosure
- Installation in Zone 1, Zone 2, Zone 21 and Zone 22
- Ex de, Ex ib and Ex tb certified
- Up to 81 operators per control station
- 6 enclosure size options
- Customizable configuration of operators, cable entry quantities and cable gland types as per specification
- Wide range of labels and accessories available

Control Stations Ex e, Stainless Steel



Function

The versatile control stations of the FXLS.CS series can be equipped flexibly with operator elements and LED indicators. A comprehensive range of control functions, contact blocks, cable glands and further accessories allow the configuration of each control station to exactly meet any application requirements and ensure optimal space efficiency.

The enclosures are manufactured from electropolished AISI 316L stainless steel to provide excellent tarnish and corrosion resistance. This surface finish is ideally suited to meet hygienic requirements valid in pharmaceutical and food processing plants.

All enclosures feature a return flange sealing method which prevents accumulated dirt, dust and moisture from entering the enclosure when the lid is opened. Concealed hinges facilitate opening the control stations.

Durable materials and components of high quality allow the control stations to be used in harsh ambient conditions.

Technical Data

Electrical specifications

| | |
|-------------------|---------------------|
| Operating voltage | 250 V AC max. |
| Operating current | 16 A max. |
| Terminal capacity | 2.5 mm ² |
| Terminal torque | 0.8 Nm |

Mechanical specifications

| | |
|------------------------|--|
| Enclosure cover | fully detachable , concealed hinges |
| Cover fixing | M6 stainless steel hexagon head screws , optional quarter-turn key locks |
| Cover seal | one piece closed cell silicone |
| Degree of protection | IP66 |
| Cable entry | cable glands as per specification |
| Gland plate on face(s) | see data table |
| Defined entry area | see data table |
| Material | |
| Enclosure | 1.5 mm AISI 316L, (1.4404) stainless steel |
| Gland plate | 3 mm AISI 316L, (1.4404) stainless steel |
| Finish | electropolished |
| Mass | see data table |
| Dimensions | see data table |
| Mounting | see data table |
| Grounding | M10 internal/external brass grounding bolt through enclosure body |

Ambient conditions

| | |
|---------------------|--|
| Ambient temperature | -40 ... 55 °C (-40 ... 131 °F) -50 °C (-58 °F) on request |
|---------------------|--|

Data for application in connection with hazardous areas

| | |
|---------------------------------|-------------------|
| EU-type examination certificate | CML 16 ATEX 3009X |
|---------------------------------|-------------------|

Technical Data

| | |
|-----------------------------------|---|
| Marking | Ex db eb mb IIC T* Gb Ex ib IIC T* Gb Ex db eb ib mb IIC T* Gb T6/T80 °C @ Ta +40 °C T4/T130 °C @ Ta +55 °C |
| Maximum power dissipation | see data table |
| International approvals | |
| IECEX approval | IECEX CML 16.0008X |
| IA approval | MASC S/18-0003X |
| CCC approval | 2020322304002545 |
| 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 M10 internal/external stainless steel grounding bolt M6 internal stainless steel grounding bolt welded to lid M6 internal stainless steel grounding bolt welded to bottom gland plate quarter-turn key locks engraved traffolyte tag label engraved AISI 316L stainless steel tag label color in-fill stainless steel tag label |
| Indicators/operating means | |
| Control elements | small footprint max. 81 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 |
|-----|----|---|---|---|---|----|---|--------|
| FXL | ** | * | * | * | * | . | - | **** |
| FXL | S | 3 | 1 | 1 | . | CS | - | Y 0001 |

Example: FXLS311.CS-Y0001

Control Station increased safety, material stainless steel, size 3, surface B and flange plate at bottom, customer specific engineered solution

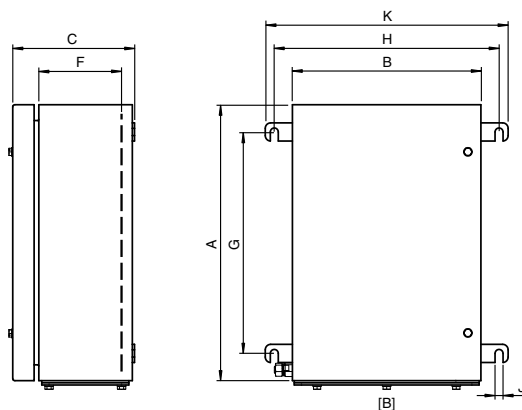
| | |
|----------|---|
| 1 | Enclosure type |
| FXL | metal enclosure with return flange |
| 2 | Material |
| S | stainless steel |
| 3 | Enclosure size |
| n | see dimensions data table |
| 4 | Type of explosion protection |
| 1 | Ex db eb mb, Ex tb |
| 3 | Ex ib, Ex tb |
| 5 | Ex db eb ib mb, Ex tb |
| 5 | Gland plate at face(s) |
| 0 | none |
| 1 | face B |
| 3 | faces B, C, D |
| 6 | Enclosure depth |
| | standard depth, see dimensions data table |
| D | increased depth |
| 7 | Type of solution |
| CS | control station |

Type Code

| 8 | Variant |
|---|---------------------|
| C | configured variants |
| Y | engineered variants |

| 9 | Variant number |
|------|-------------------------|
| xxxx | consecutive item number |

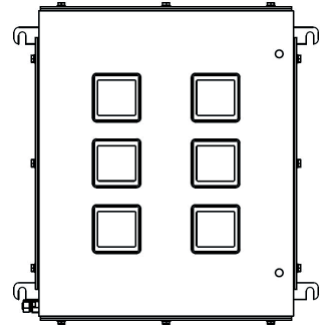
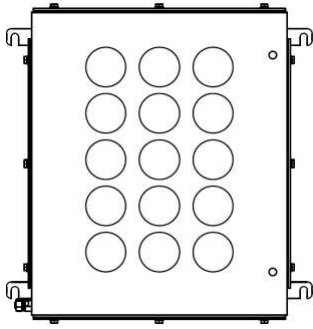
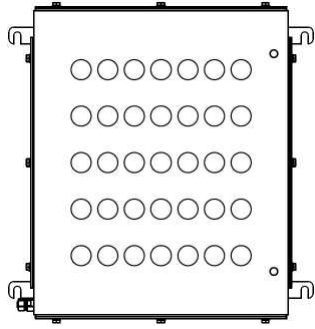
Dimensions and Enclosure Details




| Type | External dimensions [mm] | | | | Mounting [mm] | | | Mass approx. [kg] | Cover screws | | | Max. power dissipation [W] |
|-----------|--------------------------|-----|-----|-----|---------------|-----|----|-------------------|--------------|------|-------------|----------------------------|
| | A | B | C | K | G | H | J | | Mx | qty. | Torque [Nm] | |
| FXLS3*.CS | 306 | 306 | 165 | 381 | 231 | 356 | 11 | 8 | M6 | 2 | 2 | 21 |
| FXLS6*.CS | 480 | 480 | 165 | 555 | 405 | 530 | 11 | 14 | M6 | 2 | 2 | 30 |
| FXLS9*.CS | 762 | 508 | 165 | 583 | 687 | 558 | 11 | 20 | M6 | 3 | 2 | 41.7 |

| Type | Control elements quantity max. | | | | | | | | |
|-----------|--------------------------------|------------|-------|-----------------|------------|-------|-----------------|------------|-------|
| | small footprint | | | large footprint | | | viewing windows | | |
| | vertical | horizontal | total | vertical | horizontal | total | vertical | horizontal | total |
| FXLS3*.CS | 3 | 5 | 15 | 3 | 2 | 6 | 2 | 2 | 4 |
| FXLS6*.CS | 5 | 9 | 45 | 5 | 4 | 20 | 4 | 3 | 12 |
| FXLS9*.CS | 9 | 9 | 81 | 9 | 4 | 36 | 5 | 4 | 20 |


Operating Elements Configuration



Pushbuttons and Emergency Stops

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

Actuator Heads - Technical Data









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

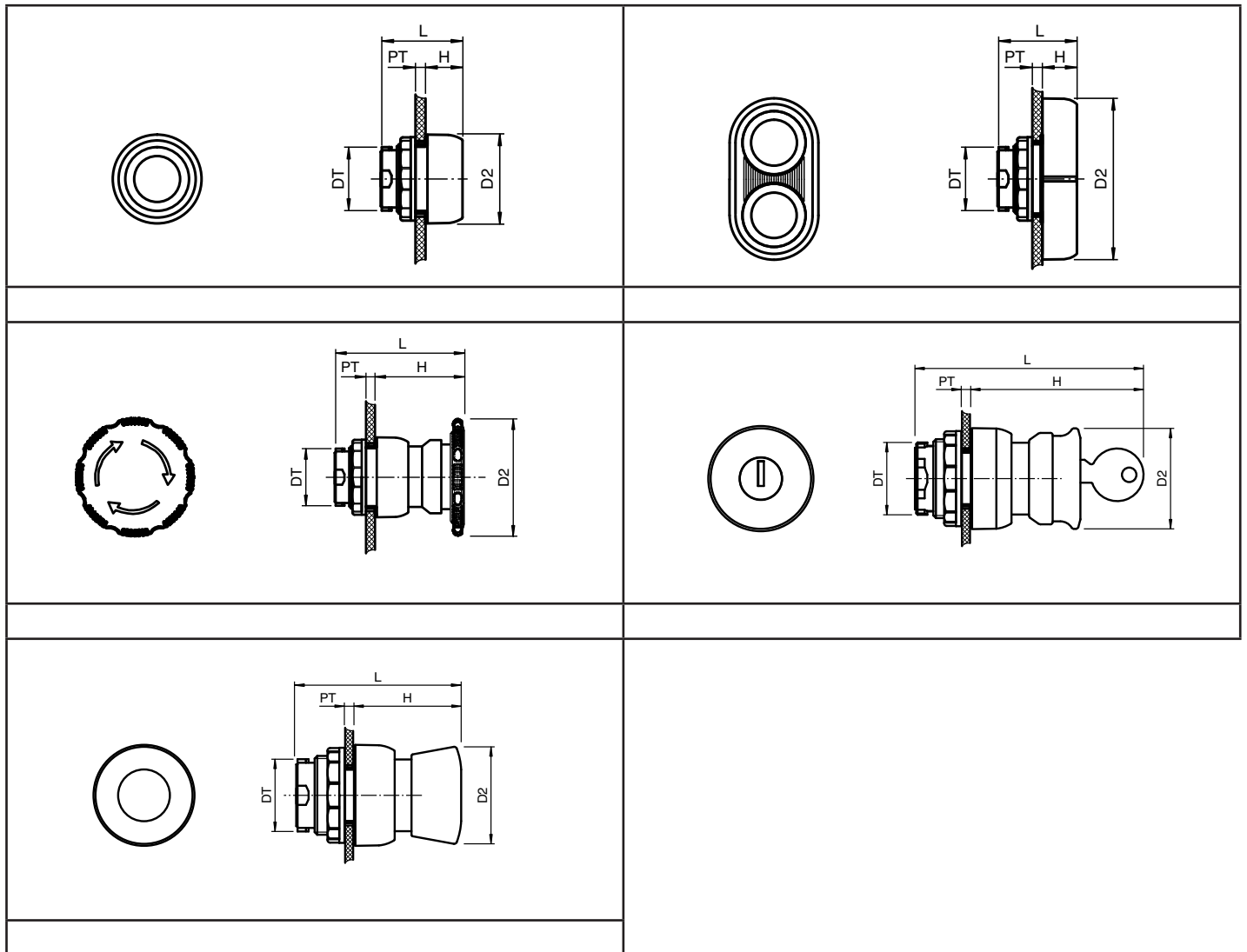
Other Pushbuttons Actuator Heads

| 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 |



Release date: 2022-05-10 Date of issue: 2022-05-10 Filename: t170322_eng.pdf

Pushbuttons and Emergency Stops

Contact Blocks

| Type | Mounting | Number of poles | Contact configuration | Switching diagram see overview | Image |
|------|----------|-----------------|-----------------------|--------------------------------|-------|
| | | | | | |
| | | | | | |
| | | | | | |

Contact Blocks - Technical Data

Electrical specifications

| | |
|-------------------|---|
| Operating voltage | 250 V max. |
| Operating current | 16 A max. |
| Terminal capacity | 2.5 mm ² |
| 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) |
|---------|----------------|

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 | II 2 G Ex de IIC Gb |
|---------|------------------------|

Contact Blocks - Technical Data continued

International approvals

| | |
|----------------|--------------------|
| IECEx approval | IECEx CML 16.0114U |
|----------------|--------------------|

Conformity

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

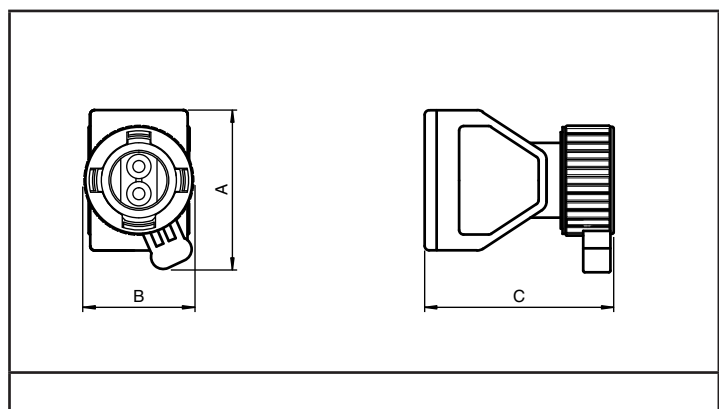
General information

| | |
|---------------------------|--|
| 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 | B | C | G | H | Diam. J | N | G3 | | |
| | | | | | | | | | | |

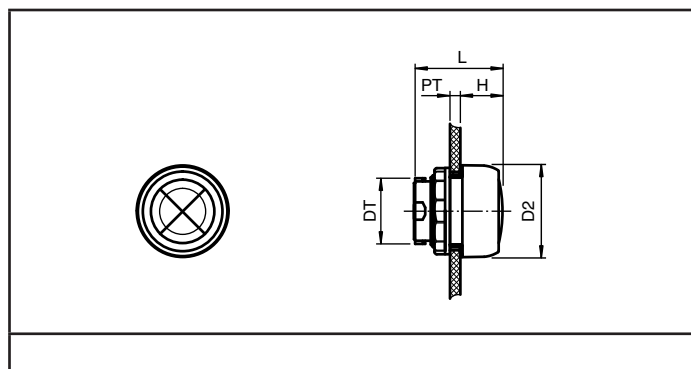


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Illuminated Pushbuttons

Illuminated Pushbuttons Actuator Heads

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



Actuator Heads - Technical Data




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

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

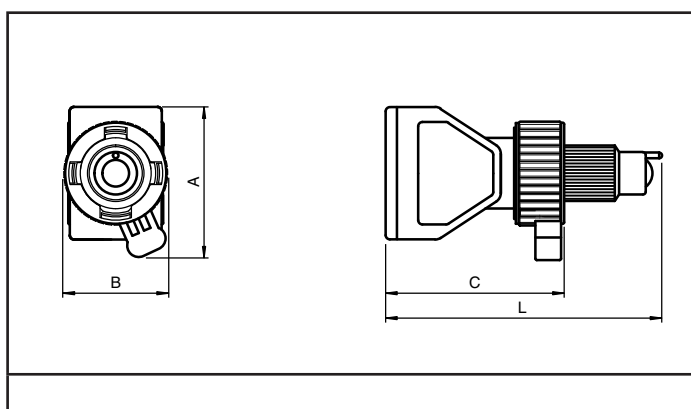
LED Contact Modules

| Type | Mounting | Operating voltage [V] | Number of poles | Contact configuration | Switching diagram | Image |
|--------|---------------|----------------------------|-----------------|-----------------------|---|---|
| CFP.K | cover-mounted | 30 ... 250 V AC | 1 | 1x NO |  |  |
| CFP.HL | cover-mounted | 10 ... 28 V AC/DC | 1 | 1x NC |  | |
| CFP.HI | cover-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

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





























LED Modules - Technical Data

General information

Supplementary information

EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperl-fuchs.com.

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





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

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

Combination of 2 Pole Contact Blocks and Actuator Heads

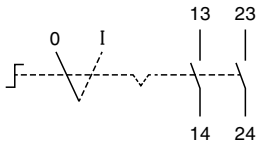
| Actuator head function | Actuator head diameter [mm] | Switching configuration | Contact block | Contacts | Switching diagram see overview | Operator action | Labeling | Lockable | Actuator type |
|----------------------------|-----------------------------|---------------------------------------|---------------|---------------|--------------------------------|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

Contact Blocks

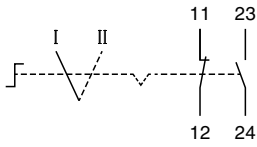
| Type | Mounting | Number of poles | Contact configuration | Switching diagram | Image |
|-------|---------------|-----------------|-----------------------|---|---|
| CFP.B | cover-mounted | 2 | 2x NC |    |  |

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

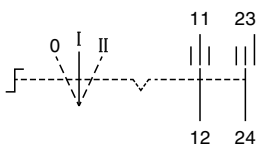
Switching Diagrams



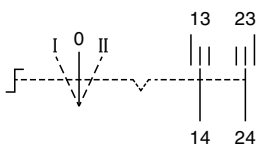
| | | |
|---|----|----|
| | 13 | 23 |
| 0 | | |
| I | X | X |
| | 14 | 24 |



| | | |
|----|----|----|
| | 11 | 23 |
| I | X | |
| II | | X |
| | 12 | 24 |



| | | |
|----|----|----|
| | 11 | 23 |
| 0 | | |
| I | X | |
| II | | X |
| | 12 | 24 |



| | | |
|----|----|----|
| | 13 | 23 |
| I | X | |
| 0 | | |
| II | | X |
| | 14 | 24 |

Contact Blocks - Technical Data

Electrical specifications

| | |
|-------------------|---|
| Operating voltage | 250 V max. |
| Operating current | 16 A max. |
| Terminal capacity | 2.5 mm ² |
| 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) |
|---------|----------------|

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 | II 2 G Ex de IIC Gb |
|---------|------------------------|

International approvals

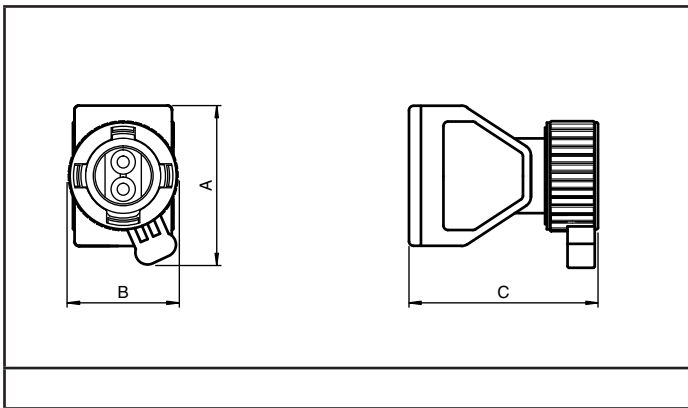
| | |
|----------------|--------------------|
| IECEx approval | IECEx CML 16.0114U |
|----------------|--------------------|

Conformity

| | |
|----------------------|---------------|
| Degree of protection | EN 60529 |
| Usage category | IEC / EN 6094 |
| CE marking | 0102 |

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 . |
|---------------------------|--|



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: 2022-05-10 Date of issue: 2022-05-10 Filename: t170322_eng.pdf

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

Combination of 4 Pole Contact Blocks and Actuator Heads

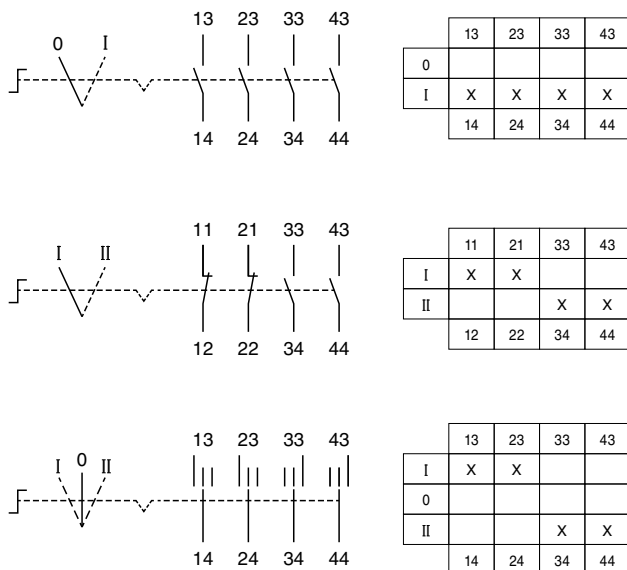
| Actuator head function | Actuator head diameter [mm] | Switching configuration | Contact block | Contacts | Switching diagram see overview | Operator action | Labeling | Lockable | Actuator type |
|------------------------|-----------------------------|---------------------------------------|---------------|---------------|--------------------------------|-----------------|------------|----------|---------------|
| rotary actuator | 60 | 2 position changeover | 50 | 2x NO / 2x NC | (6) | L - L | I - II | - | S7 |
| rotary actuator | 60 | 3 position changeover with center OFF | 52 | 4x NO | (7) | S - L - S | I - 0 - II | yes | S8S |

Contact Blocks

| Type | Mounting | Number of poles | Contact configuration | Switching diagram | Image |
|--------|---------------|-----------------|-----------------------|-------------------|-------|
| CFP.51 | cover-mounted | 4 | 4x NC | | |
| CFP.53 | cover-mounted | 4 | 1x NO / 3x NC | | |
| | | | | | |
| | | | | | |

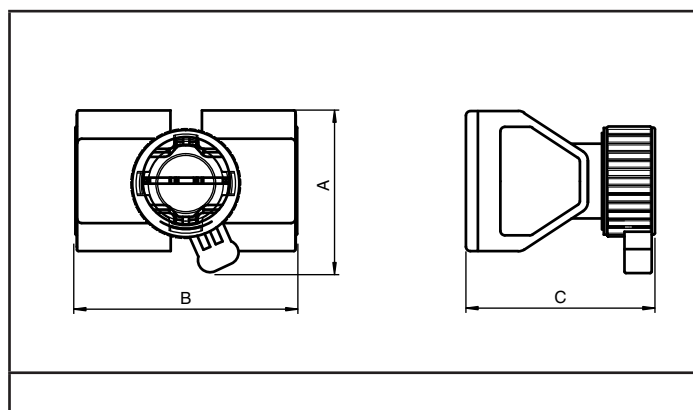
Control Switches, 4 Pole Contact Blocks, for use with SR.CS* and FXL*.CS

Switching Diagrams



Contact Blocks - Technical Data

| Electrical specifications | |
|---|--|
| Operating voltage | 250 V max. |
| Operating current | 16 A max. |
| Terminal capacity | 2.5 mm ² |
| 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) |
| 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 | II 2 G 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 see www.pepperl-fuchs.com . |



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 | | |

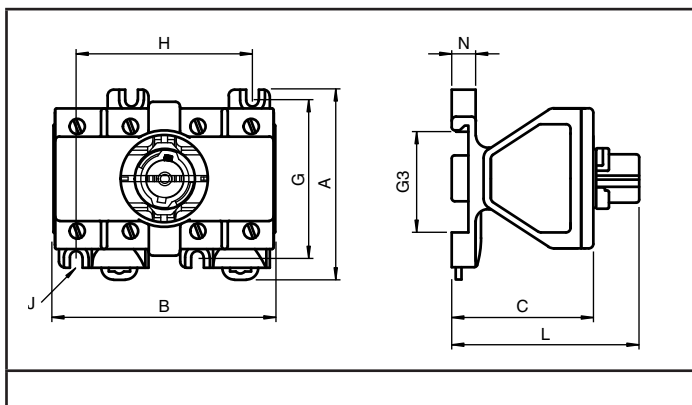
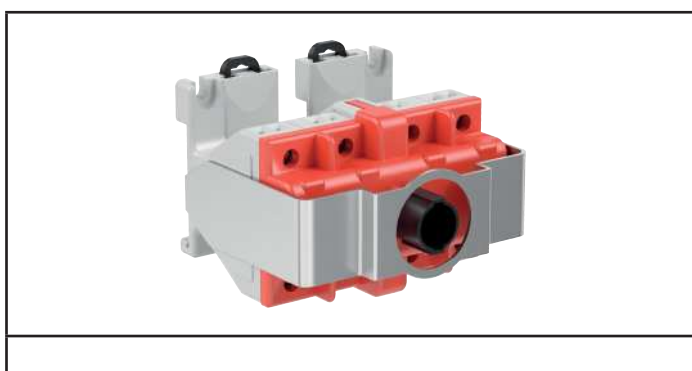
Release date: 2022-05-10 Date of issue: 2022-05-10 Filename: t170322_eng.pdf

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 | Switching block | Contacts | Switching diagram see overview | Operator action | Labeling | Lockable | Actuator type |
| 2 position changeover | 61 | 2x NO / 2x NC | (11) | L - L | I - II | - | T7 |
| 2 position changeover | 68 | 1x NO / 3x NC | (18) | L - L | I - II | - | T7 |
| 3 position changeover, center OFF | 64 | 4x NO | (14) | L - L - L | I - 0 - II | yes | T8 |
| 3 position changeover | 72 | 4x NO | (22) | L - L - L | I - 0 - II | - | T8 |
| 3 position changeover, right spring return | 69 | 2x NO / 2x NC | (19) | L - L - S | 0 - I - II | - | T0 |
| 4 position changeover | 65 | 3x NO / 1x NC | (15) | L - L - L - L | I - II - III - IV | - | T9 |
| 4 position changeover | 71 | 4x NO | (21) | L - L - L - L | I - II - III - IV | - | T9 |

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

Dimensions



Switching Blocks - Technical Data

Electrical specifications

| | |
|-------------------|---|
| Operating voltage | 250 V max. |
| Operating current | 16 A max. |
| Terminal capacity | 2.5 mm ² |
| 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) |
|---------|----------------|

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 | ⚡ II 2 G 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 |

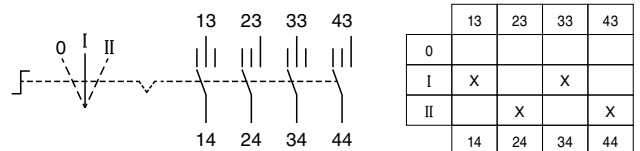
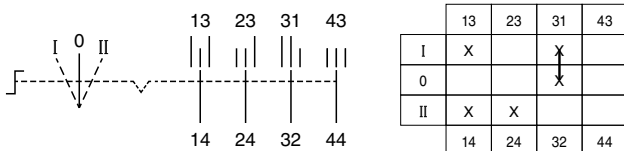
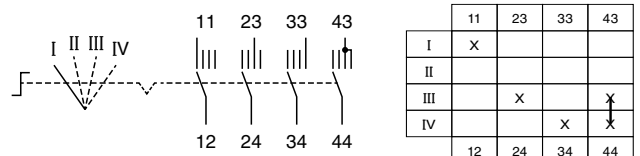
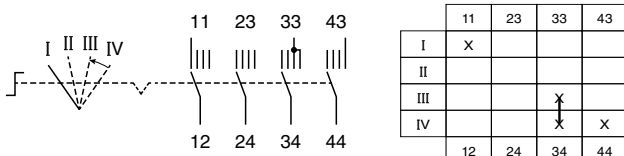
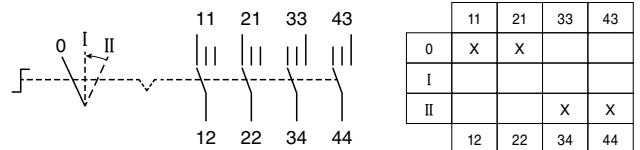
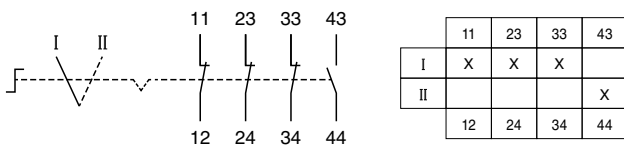
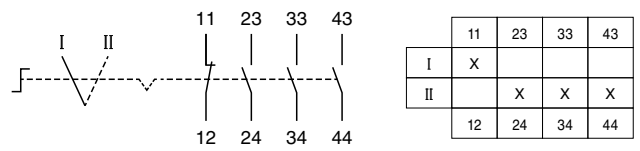
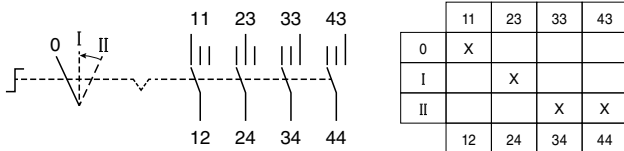
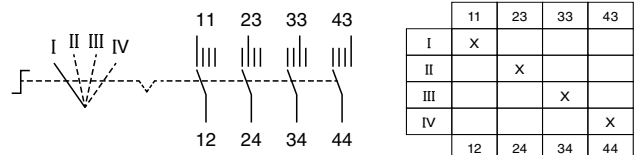
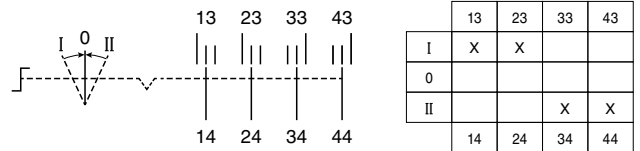
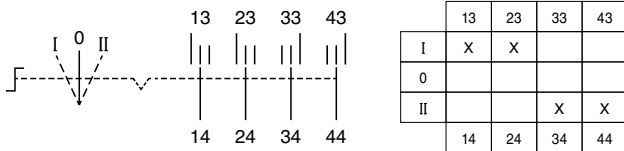
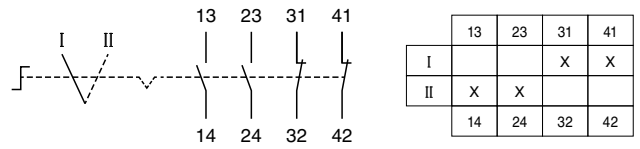
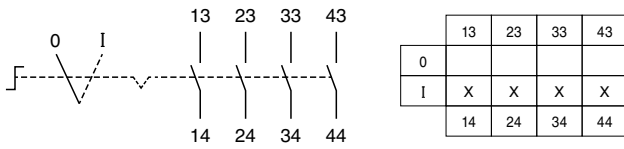
General information

| | |
|---------------------------|--|
| 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 see www.pepperl-fuchs.com . |
|---------------------------|--|

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 | | |

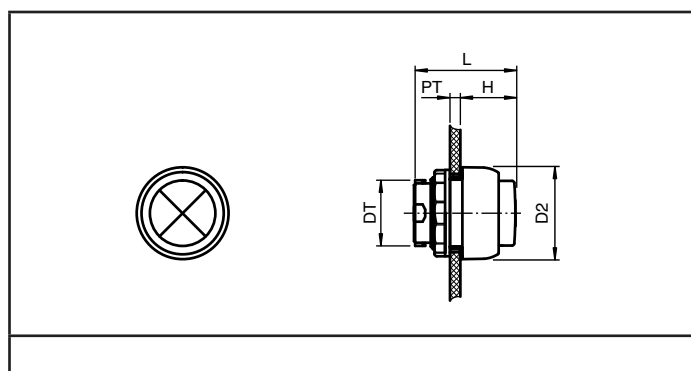
Control Switches, 4 Pole Rotary Switching Blocks, Switching diagrams



Release date: 2022-05-10 Date of issue: 2022-05-10 Filename: t170322_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.

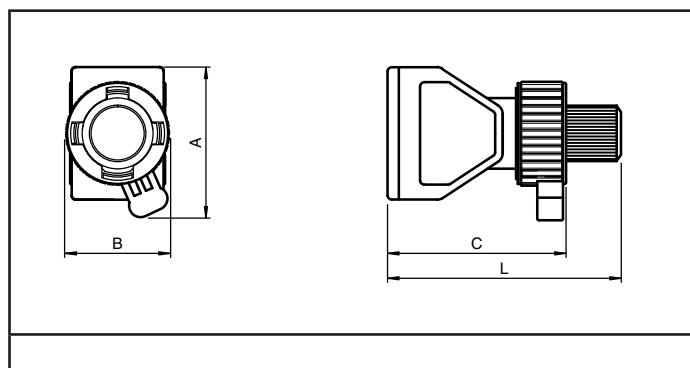
LED Heads - Dimensions

| 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.GE | cover-mounted | 10 ... 28 |  |



LED Modules - Technical Data

Electrical specifications

| | |
|-------------------|---------------------|
| Operating voltage | 250 V max. |
| Power consumption | 2 W max. |
| Terminal capacity | 2.5 mm ² |
| Terminal torque | 0.8 Nm |

Mechanical specifications

| | |
|----------------------|------|
| 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 |  II 2 G Ex de IIC Gb |
|---------|--|

Intrinsically safe variants *.NI, *.GI

| | |
|---------|--|
| Marking |  II 1 G Ex ia IIC Ga |
|---------|--|

| | |
|-------------------------------------|---------|
| Voltage U _i | 28 V |
| Current I _i | 93 mA |
| Power P _i | 0.651 W |
| Internal capacitance C _i | 0 µF |
| Internal inductance L _i | 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 | 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 ² |
| Terminal torque | 0.8 Nm |
| Sound level | 60 dB at 30 cm |

Mechanical specifications

| | |
|----------------------|------|
| Degree of protection | IP66 |
|----------------------|------|

Material

| | |
|---------|----------------|
| Housing | Polyamide (PA) |
|---------|----------------|

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 |
|---------------------------------|-------------------|

| | |
|---------|--|
| Marking |  II 2 GD Ex e ib mb IIC Gb Ex ib tb IIIC Db |
|---------|--|

International approvals

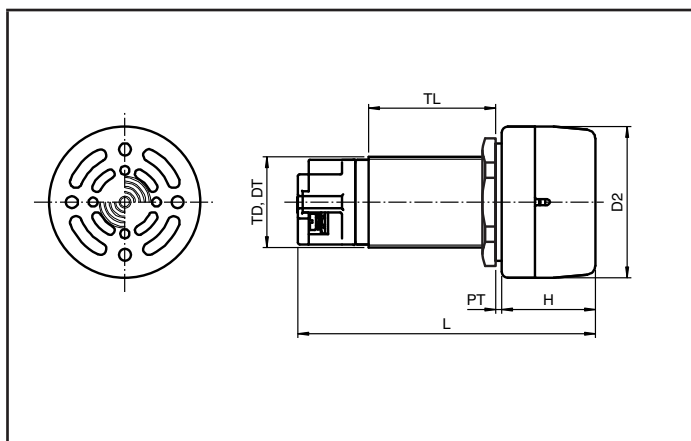
| | |
|----------------|--------------------|
| IECEx approval | IECEx CML 16.0114U |
|----------------|--------------------|

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 . |
|---------------------------|--|



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 | | | |
| | | | | | | | | | |

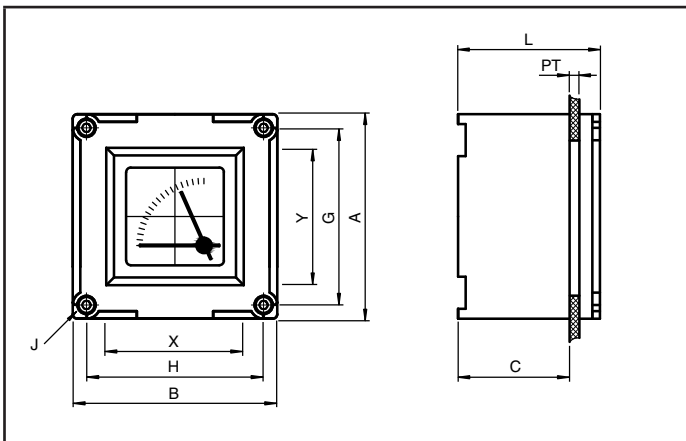
Ammeters

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 - Technical Data

Electrical specifications

| | |
|-------------------|---------------------|
| Operating voltage | 500 V AC |
| Operating current | 5 A max. |
| Accuracy class | 1.5 |
| Terminal capacity | 2.5 mm ² |
| Terminal torque | 0.8 Nm |

Mechanical specifications

| | |
|----------------------|---------------------------|
| Degree of protection | IP66 |
| Mounting | Meter window mounting kit |

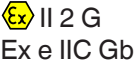
Material

| | |
|---------|----------------|
| 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 www.pepperl-fuchs.com . |
|---------------------------|---|

Meter Window Mounting Kits


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

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 | | |
| | | | | | | | | | | | |

Voltmeters

Voltmeter Modules

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

Voltmeter Scales

included in module

Voltmeter Modules - Technical Data

Electrical specifications

| | |
|-------------------|---------------------|
| Operating voltage | 500 V AC |
| Accuracy class | 1.5 |
| Terminal capacity | 2.5 mm ² |
| 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 |  II 2 G Ex e IIC Gb |

International approvals

| | |
|----------------|--------------------|
| IECEX approval | IECEX CML 16.0114U |
|----------------|--------------------|

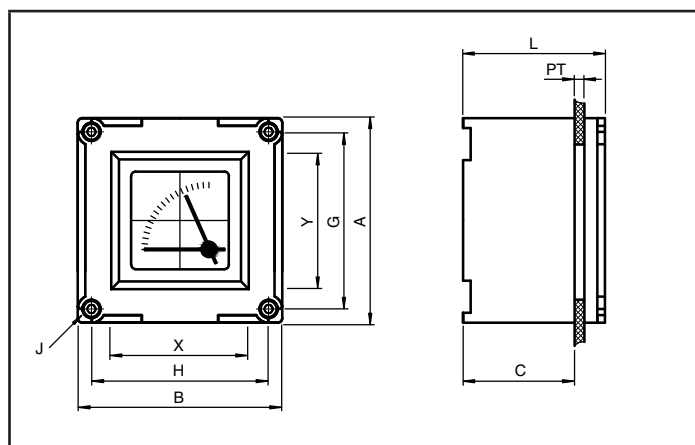
Conformity

| | |
|----------------------|----------|
| 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


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

Voltmeter Modules - Dimensions

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

Potentiometers

Potentiometer Actuator Heads

| Type | Enclosure type | Labeling | Image |
|------|----------------|----------|---|
| | | |  |

Actuator Heads - Technical Data

Mechanical specifications

Degree of protection IP66

Material

Housing Polyamide (PA)

Finish inherent color black

Washer gasket silicone

Ambient conditions

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

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

Data for application in connection with hazardous areas

EU-Type Examination Certificate CML 16 ATEX 3339U

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

International approvals

IECEX approval IECEX CML 16.0114U

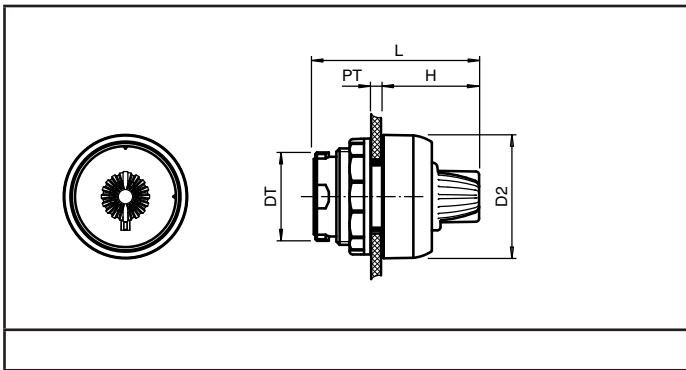
Conformity

Degree of protection EN 60529

CE marking 0102

General information

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




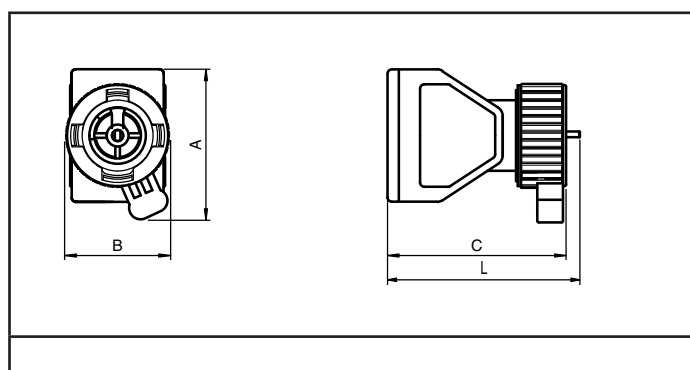
Potentiometer Actuator Heads - Dimensions

| 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.4 | cover-mounted | 0 ... 0.5 |  |
| CFP.7 | cover-mounted | 0 ... 2 | |
| CFP.9 | cover-mounted | 0 ... 10 | |



Potentiometer Modules - Technical Data

Electrical specifications

| | |
|-------------------|---------------------|
| Operating voltage | 200 V max. |
| Power consumption | 0.1 W max. |
| Terminal capacity | 2.5 mm ² |
| Terminal torque | 0.8 Nm |

Mechanical specifications

| | |
|----------------------|------|
| Degree of protection | IP20 |
|----------------------|------|

Material

| | |
|---------|----------------|
| Housing | Polyamide (PA) |
|---------|----------------|

Ambient conditions

| | |
|---------------------|--------------------------------|
| Service temperature | -55 ... 90 °C (-67 ... 194 °F) |
|---------------------|--------------------------------|

Data for application in connection with hazardous areas

| | |
|---------------------------------|-------------------|
| EU-Type Examination Certificate | CML 16 ATEX 3339U |
|---------------------------------|-------------------|

| | |
|---------|--|
| Marking |  II 2 G Ex de IIC Gb |
|---------|--|

International approvals

| | |
|----------------|--------------------|
| IECEx approval | IECEx CML 16.0114U |
|----------------|--------------------|

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 |  |
| | |  |