

Features

- Aluminum enclosure
- Ex d certified, some variants Ex tD A21
- Installation in Zone 1 and Zone 2
- Gas group IIB or gas group IIB+H₂
- Integration of electrical components and operating elements in Ex d enclosures as per specification
- Customizable configuration as per specification
- Various enclosure size and design variants
- Thermo-resistant tempered glass window
- Degree of protection IP66



Function

The enclosures of the F* CP series are specifically designed for power distribution applications. They can accommodate a busbar chassis of up to 48 poles in one single enclosure.

The series consists of 6 enclosure variants manufactured from marine grade aluminum. Several enclosures can be assembled to form a complete, fully engineered control and distribution panel. After thorough testing and documentation each solution will reach its operation site fully certified and ready for commissioning.

A choice of windows allows viewing of integrated monitoring functions. Electrical components can be integrated as per customer specification.



Type Code / Model Number

Enclosure type

- F** enclosure Ex d IIB and Ex tD A21
- FH** enclosure Ex d IIB+H₂

Material

copper-free aluminum

Enclosure size

xx see data table

Variant number

-Yxxxxxx

| | | | |
|----|--|-----|----------|
| FH | | 160 | -Yxxxxxx |
|----|--|-----|----------|

Example: Control panel Ex d IIB+H₂, size 160 in aluminum

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

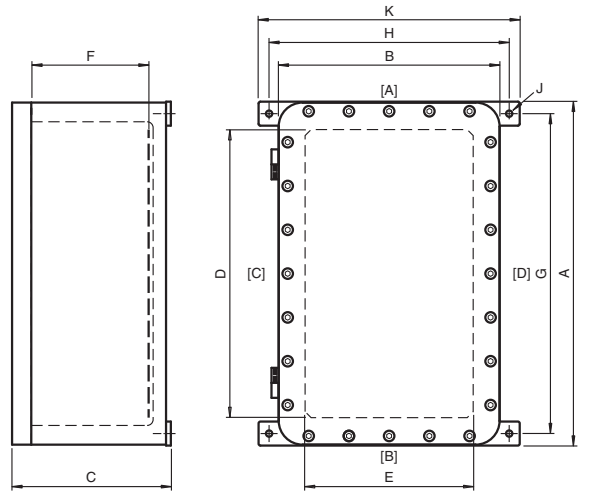
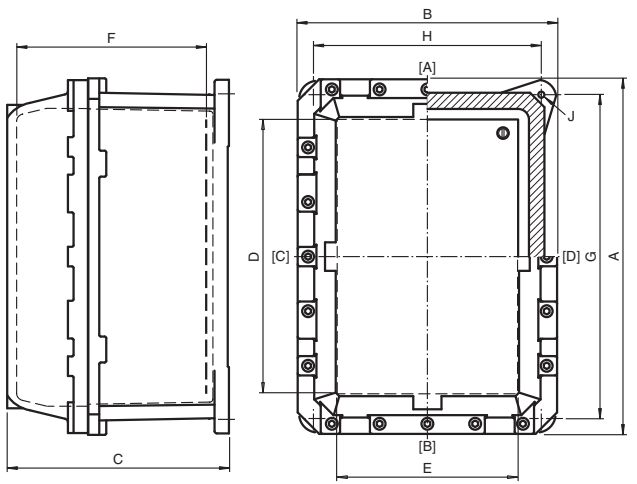
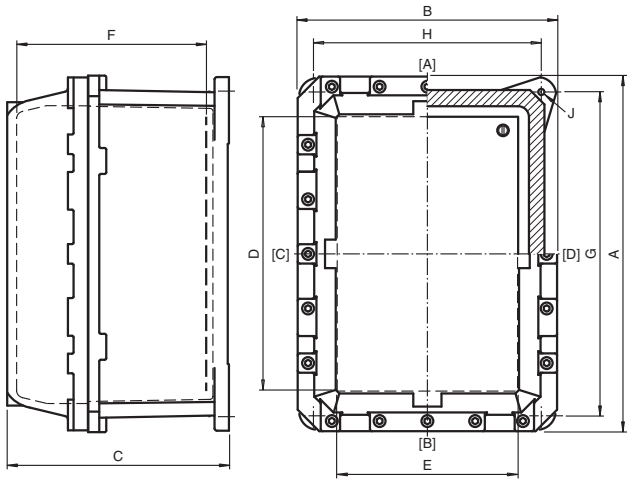
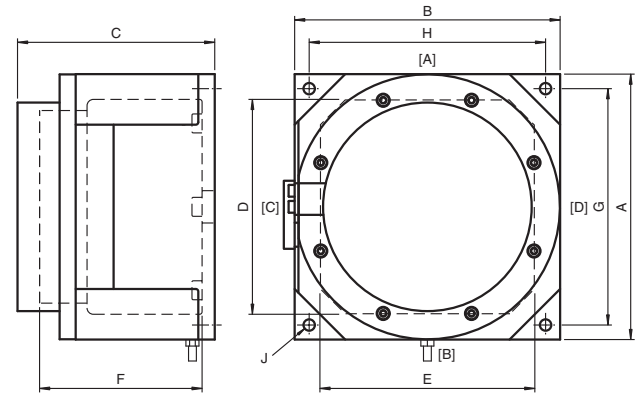
| Technical Data | |
|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electrical specifications | |
| Operating voltage | application-specific |
| Operating current | application-specific |
| Mechanical specifications | |
| Dimensions | see data table values might differ slightly due to casting and manufacturing tolerances |
| Thread type | metric ISO pitch 1.5 mm or NPT ANSI ASME B1.20.1 |
| Enclosure cover | detachable , optional hinges |
| Cover fixing | stainless steel socket cap head screws |
| Screws | see data table |
| Cover seal | chloroprene |
| Degree of protection | IP66 |
| Cable entry | see data table |
| Grounding | M6 external grounding points |
| Mass | see data table valid for empty enclosure, will increase according to integrated components |
| Material | |
| Enclosure | Aluminum alloy |
| Finish | epoxy coated RAL 7032 |
| Flamepath grease | Fluid film grade AR |
| Glass | thermo-resistant tempered glass |
| Ambient conditions | |
| Ambient temperature | -20 ... 60 °C (-4 ... 140 °F) depending on integrated components |
| Data for application in connection with hazardous areas | |
| EU-Type Examination Certificate | see data table |
| Maximum power dissipation | see data table maximum power dissipation at T4/+40 °C enclosure without window |
| International approvals | |
| IECEx approval | see data table |
| Conformity | |
| Degree of protection | EN60529 |
| 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 . |
| Ordering information | This solution will be delivered completely configured and assembled ready for use. For configuration details please contact Customer Service. |

Dimensions

| Legend | |
|-------------|-----------------------------------------------------|
| A | Height |
| B | Width |
| C | Depth |
| D | Internal height |
| E | Internal width |
| F | Internal depth to surface mounting plate |
| G | Mounting holes distance, vertical |
| H | Mounting holes distance, horizontal |
| J | Mounting holes diameter |
| K | Maximum external dimension of the mounting brackets |
| [A] ... [D] | Cable entry faces |

Dimension values see data table. Real values might differ slightly due to casting and manufacturing tolerances. Images and drawings are generic for these enclosure types and may deviate from the specific variant.

upper drawing: F7
 middle drawing: FH150
 lower left: FH160 / FH560 / FH24/2
 lower right: FH400



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

Dimensions and Enclosure Details

| Type | External dimensions [mm] | | | | Internal dimensions [mm] | | | Mounting [mm] | | | Mass approx. [kg] | Cover screws | | | |
|--------|--------------------------|-----|-----|-----|--------------------------|-----|-----|---------------|-----|------|-------------------|--------------|------|----------------------------------------|-------------|
| | A | B | C | K | D | E | F | G | H | J | | Mx | qty. | Min. yield stress [N/mm ²] | Torque [Nm] |
| F7 | 210 | 210 | 156 | - | 170 | 170 | 125 | 187 | 187 | 9 | 8 | M6 | 8 | 450 | 3 |
| FH150 | 490 | 358 | 208 | - | 381 | 254 | 164 | 452 | 318 | 8.5 | 34 | M10 | 20 | 1115 | 18 |
| FH160 | 490 | 358 | 277 | - | 381 | 254 | 230 | 452 | 318 | 8.5 | 38 | M10 | 20 | 1115 | 18 |
| FH400 | 570 | 368 | 261 | 435 | 480 | 280 | 199 | 533 | 400 | 10.5 | 15.5 | M10 | 24 | 450 | 18 |
| FH560 | 600 | 500 | 224 | - | 510 | 410 | 170 | 574 | 474 | 10.5 | 54 | M10 | 26 | 450 | 18 |
| FH24/2 | 775 | 470 | 280 | - | 698 | 394 | 190 | 750 | 445 | 13 | 85 | M10 | 34 | 700 | 18 |

Mass is valid for empty enclosure, it will increase according to integrated components and cable glands

Data for application in connection with hazardous areas

| Type | EU-Type Examination Certificate | Marking | IECEX approval | Max. power dissipation [W] |
|--------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------|
| F7 | SIRA 07 ATEX 1134 |  II 2 GD Ex d IIB T* Ex tD A21 T6/T80 °C @ Ta +60 °C | IECEX TSA 07.0029 | 59 |
| FH150 | SIRA 07 ATEX 1135X | | IECEX SIR 12.0108 IECEX TSA 06.0054 | 160 |
| FH160 | SIRA 07 ATEX 1136X | | IECEX TSA 07.0040 | 160 |
| FH400 | SIRA 07 ATEX 1138X |  II 2 G Ex d IIB+H ₂ T* Gb T6 @ Ta +40 °C / +55 °C / +60 °C | IECEX SIM 07.0005X | 153 |
| FH560 | SIRA 07 ATEX 1137X | | IECEX SIR 12.0091 | 205 |
| FH24/2 | SIRA 10 ATEX 1341X | | IECEX SIR 12.0090X | 260 |

Cable Entries max. Quantity per Size

| Type | Faces A and B | | | | | | Faces C and D | | | | | |
|--------|---------------|------|-----|--------|--------|-----|---------------|------|-----|--------|--------|-----|
| | M20 | M25 | M32 | M40 | M50 | M63 | M20 | M25 | M32 | M40 | M50 | M63 |
| | 1/2" | 3/4" | 1" | 1-1/4" | 1-1/2" | 2" | 1/2" | 3/4" | 1" | 1-1/4" | 1-1/2" | 2" |
| F7 | 6 | 5 | 3 | 2 | - | - | 6 | 5 | 3 | 2 | - | - |
| FH150 | 12 | 8 | 6 | 5 | 3 | - | 26 | 18 | 12 | 8 | 6 | - |
| FH160 | 12 | 8 | 6 | 5 | 3 | - | 26 | 18 | 12 | 8 | 6 | - |
| FH400 | 20 | 17 | 9 | 7 | 5 | 3 | 34 | 28 | 14 | 12 | 8 | 6 |
| FH560 | 26 | 24 | 10 | 7 | 5 | 4 | 31 | 29 | 12 | 10 | 6 | 5 |
| FH24/2 | 22 | 12 | 11 | 5 | 4 | 3 | 39 | 23 | 21 | 10 | 8 | 5 |

For details please refer to individual product datasheet
For further configurations please contact Pepperl+Fuchs