## - pizzato

General Catalogue Detection


M12 male connectors


These standard M12 male connectors are ready for the installation on the switches.
Their wires have the right length for the connection to the contact blocks and are provided with wire-end sleeves. On request they can be delivered already wired to the switch. The connectors are used where a very short machine down time is required (e.g. in big plants). The connector-provided switch can be replaced very quickly with an identical one with no chance of incorrect wiring.

## Technical data:

Max. operating voltage:
Max. operating current:

Protection degree:

Ambient temperature:
Tightening torque:
Wire cross-section:

Contact type:

250 Vac / 300 Vdc (4/5-pole) $30 \mathrm{Vac} / 36 \mathrm{Vdc}$ (8/12-pole)
4 A (4/5-pole)
2 A (8-pole)
1.5 A (12-pole)

IP67 acc. to EN 60529
IP69K acc. to ISO 20653
$-25^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$
1 ... 1.5 Nm
$0.5 \mathrm{~mm}^{2}$ (20 AWG) for 4/5-pole $0.25 \mathrm{~mm}^{2}$ (23 AWG) for 8-pole $0.14 \mathrm{~mm}^{2}$ (26 AWG) for 12-pole gold-plated


Pin assignment

|  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## Code structure

## VF CNM5MM-L100

Body material
M metal
P plastic

| No. of poles |  |
| :---: | :--- |
| $\mathbf{4}$ | $\mathbf{4}$ poles |
| $\mathbf{5}$ | 5 poles |
| $\mathbf{8}$ | $\mathbf{8}$ poles |
| $\mathbf{1 2}$ | 12 poles |



## Stock items

ATTENTION: always disconnect the power supply before removing the connector. The connector is not suitable for separation of electrical loads. Note: the 12-pole connector is only available in metal with $\mathrm{M} 20 \times 1.5$ thread and 16 cm cables

## Technical data:

- Polyurethane connector body
- Class 6 copper conductors acc. to IEC 60228 - mobile installation
- Gold-plated contacts (resistance $<5 \mathrm{~m} \Omega$ )
- Self-locking ring nut
- High flexibility cable with PVC sheath suitable to be used in drag chains, acc. to IEC 60332-3 and CEI 20-22II. With polyurethane sheath on request

Technical data:
Max. operating voltage:

Max. operating current:
Protection degree:

Ambient temperature:
Wire cross-section:

Minimum bending radius:

250 Vac / 300 Vdc (4/5-pole)
$30 \mathrm{Vac} / 36 \mathrm{Vdc}$ (8/12-pole)
4 A (4-5-pole), 2 A (8-pole), 1.5 A (12-pole)
IP67 acc. to EN 60529
IP69K acc. to ISO 20653
(Protect the cables from direct high-pressure and high-temperature jets)
$-25^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$ for fixed installation
$-15^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$ for mobile installation
$0.34 \mathrm{~mm}^{2}$ (22 AWG) for 4-pole
$0.25 \mathrm{~mm}^{2}$ (23 AWG) for 5/8-pole
$0.14 \mathrm{~mm}^{2}$ (26 AWG) for 12-pole
> cable diameter $\times 15$

## Pin assignment

| 4 poles |  | 5 poles | 8 poles | 12 poles |
| :---: | :---: | :---: | :---: | :---: |
| $\left.{ }_{4}^{1} \begin{array}{l} 0 \\ 0 \\ 0 \\ 0 \end{array}\right)^{1} 2$ |  | $\left.{ }_{4}{ }_{3}^{1} \begin{array}{l} 0 \\ 0 \\ 0 \\ 0 \end{array}\right)_{2}$ |  |  |
| Pin | Colour | Pin Colour | Pin Colour | Pin Colour |
| 1 | Brown | 1 Brown | 1 White | Brown |
| 2 | White | 2 White | 2 Brown | 2 Blue |
| 3 | Blue | 3 Blue | 3 Green | 3 White |
| 4 | Black | 4 Black | 4 Yellow | 4 Green |
|  |  | 5 Grey | 5 Grey | 5 Pink |
|  |  |  | 6 Pink | 6 Yellow |
|  |  |  | 7 Blue | 7 Black |
|  |  |  | 8 Red | 8 Grey |
|  |  |  |  | 9 Red |
|  |  |  |  | 10 Purple |
|  |  |  |  | 11 Grey-Pink |
|  |  |  |  | 12 Red-Blue |

## Code structure

Attention! The feasibility of a code number does not mean the effective availability of a product. Please contact our sales office.

## VF CA4PD3M

| No. of poles |  |  | Connection type |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4 |  | poles | M |  | M12x1 |  |  |  |  |
| 5 |  | poles |  |  |  | No. of poles |  |  |  |
| 8 |  | poles | Cable length (L) |  |  | 4 | 5 |  | 12 |
| 12 |  | poles | 1 |  | metre |  |  |  |  |
| Cable sheath |  |  | 2 |  | metres |  |  |  |  |
| P | PVC (standard) |  | 3 |  | metres (standard) | - |  |  |  |
| U | PUR |  | 4 | 4 metres |  |  |  |  |  |
|  |  |  | 5 |  | metres (standard) | - |  |  | - |
| Connector type |  |  | $\ldots$ |  |  |  |  |  |  |
|  | D | straight (standard) | 0 |  | metres (standard) | - |  |  | - |
|  | G | angled | Other lengths on request |  |  |  |  |  |  |

Stock items
VF CA4PD3M
VF CA4PD5M
VF CA4PD0M
VF CA5PD3M
VF CA5PD5M
VF CA5PD0M
VF CA8PD5M
VF CA8PD0M
VF CA12PD5M
VF CA12PD0M

Attention! No stock items, minimum order quantity 100 pcs.

ATTENTION: always disconnect the power supply before removing the connector. The connector is not suitable for separation of electrical loads.


Technical data:
Max. operating voltage:
Max. operating current: Protection degree:

Ambient temperature:
Wire cross-section:
Minimum bending radius:

250 Vac / 300 Vdc (5-pole)
$30 \mathrm{Vac} / 36 \mathrm{Vdc}$ (8-pole)
4 A (5-pole), 2 A (8-pole)
P67 acc. to EN 60529
IP69K acc. to ISO 20653
Protect the cables from direct high-pressure and high-temperature jets)
$-25^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$ for fixed installation
$-15^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$ for mobile installation
0.25 mm 2 ( 23 AWG )
> cable diameter x 15

## Technical data:

- Polyurethane connector body
- Class 6 copper conductors acc. to IEC 60228 - mobile installation
- Gold-plated contacts (resistance $<5 \mathrm{~m} \Omega$ )
- Self-locking ring nut
- High flexibility cable with PVC sheath suitable to be used in drag chains, acc. to IEC 60332-3 and CEI 20-22II. With polyurethane sheath on request

$\varnothing \mathrm{d}$ : 5 mm for 5-pole 6 mm for 8-pole


## Pin assignment

Cin

## Code structure

## VF CF5PD3M

| No. of poles |  |
| :---: | :---: |
| $\mathbf{5}$ | 5 poles |
| $\mathbf{8}$ | 8 poles |

## Cable sheath

P PVC (standard)
U PUR

## Connector type

D straight

## Articles

$$
\begin{aligned}
& \text { VF CF5PD3M } \\
& \text { VF CF8PD3M }
\end{aligned}
$$

Attention! No stock items, minimum order quantity 100 pcs.

ATTENTION: always disconnect the power supply before removing the connector. The connector is not suitable for separation of electrical loads.

Field wireable M12 female connectors


## General data

Technopolymer connector body
Gold-plated contacts
Screw terminals for cable screw fittings
Max. operating voltages $250 \mathrm{Vac} / \mathrm{dc}$ (4 and 5-pole)
$30 \mathrm{Vac} / \mathrm{dc}$ (8-pole)
Maximum current 4 A (4 and 5-pole)
2 A (8-pole)
IP67 acc. to EN 60529


Protection degree
$-25^{\circ} \mathrm{C} \ldots+85^{\circ} \mathrm{C}$
$0.25 \mathrm{~mm}^{2}$ (23 AWG) ... $0.5 \mathrm{~mm}^{2}$ (20 AWG)

| Article | Description | no. of poles |
| :---: | :--- | :--- |
| VF CBMP4DM04 | Field wireable M12 female connector, straight, for $\varnothing 4 \ldots \varnothing 6.5 \mathrm{~mm}$ multipolar cables | 4 |
| VF CBMP5DM04 | Field wireable M12 female connector, straight, for $\varnothing 4 \ldots \varnothing 6.5 \mathrm{~mm}$ multipolar cables |  |
| VF CBMP8DM04 | Field wireable M12 female connector, straight, for $\varnothing 4 \ldots \varnothing 7$ mm multipolar cables | 5 |

Field wireable M12 male connectors


General data
Technopolymer connector body
Gold-plated contacts
Screw terminals for cable screw fittings
Max. operating voltages
$250 \mathrm{Vac} / \mathrm{dc}$ (5-pole)
$30 \mathrm{Vac} / \mathrm{dc}$ (8-pole)
Maximum current
4 A (5-pole)
2 A (8-pole)


Protection degree
IP67 acc. to EN 60529
Ambient temperature
$-25^{\circ} \mathrm{C} \ldots+85^{\circ} \mathrm{C}$
$0.25 \mathrm{~mm}^{2}$ (23 AWG) ... $0.5 \mathrm{~mm}^{2}$ (20 AWG)

| Article | Description | no. of poles |
| :---: | :---: | :---: |
| VF CCMP5DM04 | Field wireable M12 male connector, straight, for $\varnothing 4 \ldots \varnothing 6.5 \mathrm{~mm}$ multipolar cables | 5 |
| VF CCMP8DM04 | Field wireable M12 male connector, straight, for $\varnothing 4 \ldots \varnothing 7 \mathrm{~mm}$ multipolar cables | 8 |

ATTENTION: always disconnect the power supply before removing the connector. The connector is not suitable for separation of electrical loads.

## Series connection with Y -shaped M12 connectors

To facilitate and simplify the series wiring of the safety devices, a variety of accessories designed specifically for this purpose are available. With the help of the proven M12 round connector and the connection of standard elements, safety equipment of Category 4, SIL3 and PL e with up to 32 elements connected in series is possible. All of which is possible without the risk of connection errors and with a high IP67 protection degree. The safety circuits consist of a 24 Vdc power supply unit, a number of extensions to the installed devices, Y connectors for branching out from the chain to each individual device and a terminating plug.
In addition to the power supply unit, a suitable safety module is used to assess the state of the safety outputs within the safety chain.

## Devices suitable for series connection

The series may consist both of devices that are identical to one another (homogeneous series) or that belong to different series (mixed series).
Only the following Pizzato Elettrica devices may be connected in series using the $Y$ connectors:
ST series safety sensors with RFID technology: ST $D \cdot 31 \bullet M \bullet$, ST D•71•M•
NG series safety switches with solenoid and RFID technology: Any item with an M12 connector for series connection with a " $Y$ " connector or with option: K950, K951, K952.
NS: Any item with an M12 connector for series connection with a "Y" connector or with the option "integrated cable or connector", letter "Q". $H X$ series safety hinge switches: HX BEE1-••M.

| Electrical connection of the chain |  |  |  |
| :---: | :---: | :---: | :--- |
| Pin | Colour | Connection |  |
| 1 | Brown | A1 | Supply input +24 Vdc |
| 2 | White | OS1 | Safety output |
| 3 | Blue | A2 | Supply input 0V |
| 4 | Black | OS2 | Safety output |
| 5 | Grey | 14 | Solenoid activation input |

Note: By activating/deactivating input I4, all switches of the NG and NS series in the chain simultaneously block/open all guards. Activation and deactivation of input 14 has no effect on the ST sensors and HX hinges in the chain.


Attention! For proper operation of the devices connected in series via cables, $Y$ connectors or junction boxes, it is necessary to pay particular attention to the voltage drop that occurs in the circuit. Pay particular attention to the flowing currents and cross-section/length of the used cables to ensure that the supply voltage of the components at the end of the series connection remains within the specified limit values during effective operation.

M12 extension cable

## Technical data:

Polyurethane connector body
Class 6 copper conductors acc. to IEC 60228
Gold-plated contacts (resistance $<5 \mathrm{~m} \Omega$ )
Self-locking ring nut
High flexibility cable with PVC sheath suitable to be used in drag chains, acc. to IEC 60332-3 and CEI 20-22II.

## Technical data:

Max. operating voltage:
Max. operating current: Protection degree:

Ambient temperature:
Wire cross-section:
Minimum bending radius:
Code structure

## VF CA5PD3M-MD



$\varnothing$ d: 6.4 mm for 5-pole 6 mm for 8-pole

Pin assignment


[^0]ATTENTION: always disconnect the power supply before removing the connector. The connector is not suitable for separation of electrical loads. Items with code on green background are stock items
$\rightarrow$ The 2D and 3D files are available at www.pizzato.com

M12 connectors, Y -shaped, for series connections

## Technical data:

Polyurethane connector body
Class 6 copper conductors acc. to IEC 60228
Gold-plated contacts (resistance $<5 \mathrm{~m} \Omega$ )
Self-locking ring nut
High flexibility cable with PVC sheath suitable to be used in drag chains, acc. to IEC 60332-3 and CEI 20-22II.

## Technical data:

Max. operating voltage: Max. operating current: Protection degree:

Ambient temperature:

Wire cross-section:
Minimum bending radius:
$30 \mathrm{Vac} / 36 \mathrm{Vdc}$ 4 A (5-pole), 2 A (8-pole)
IP67 acc. to EN 60529
IP69K acc. to ISO 2653
(Protect the cables from direct high-pressure and high-temperature jets)
$-25^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$ for fixed installation
$-15^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$ for mobile installation
$0.5 \mathrm{~mm}^{2}$ (20 AWG)
> cable diameter $\times 15$
Internal block diagram, Y -shaped connector



## Pin assignment



| Article | Description |
| :---: | :--- |
| VF CY201P0 | M12 connectors, Y-shaped, for series connections |

## M12 terminating plugs for series connections



## Technical data:

Polyurethane connector body
Gold-plated contacts (resistance $<5 \mathrm{~m} \Omega$ )
Self-locking ring nut
Protection degree:
Max. operating voltage:
IP67 acc. to EN 60529

Max. operating current:
$250 \mathrm{Vac} / 300 \mathrm{Vdc}$
4 A


ATTENTION: always disconnect the power supply before removing the connector. The connector is not suitable for separation of electrical loads.

## Junction box for series connection of up to 4 devices

|  | Technical data: <br> Material: |
| :--- | :--- |
|  | Self-extinguishing shock-proof polycarbonate with <br> double insulation, UV-resistant and glass fibre <br> reinforced, high shock resistance. |
| stainless steel |  |


| Article | Description |
| :---: | :--- |
| VF CY302P0 | Junction box for series connection of up to 4 devices |

## Pin assignment



## Example of series connection of 4 NG series switches

| Terminal box | Connection |  | Terminal box | Connection |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1A | A1 | Supply input +24 Vdc | 1 C | A1 | Supply input +24 Vdc |
| 2A | A2 | Supply input 0 V | 2 C | OS1 | Safety output |
| 3A | OS1 | Safety output | 3 C | A2 | Supply input 0 V |
| 4A | OS2 | Safety output | 4 C | IS1 | Safety input |
| 5A |  | Auxiliary connection |  | O3 | Signalling output, actuator inserted |
| 6 A |  | Auxiliary connection | 5 C | O4 | Signalling output, actuator inserted |
| 7 A | OAUX1 | Auxiliary output Oaux1 |  | O4 | and locked |
| 8A | OAUX2 | Auxiliary output Oaux2 | 6 C | OS2 | Safety output |
| 9A | OAUX3 | Auxiliary output Oaux3 | 7 C | IS2 | Safety input |
| 10A | OAUX4 | Auxiliary output Oaux4 | 8C | 14 | Solenoid activation input |



## M8 female connectors with cable



## Technical data

Polyurethane connector body
Class 6 copper conductors acc. to IEC 60228
Gold-plated contacts (resistance $<5 \mathrm{~m} \Omega$ )
Self-locking ring nut
High flexibility cable with PVC sheath suitable to be used in drag chains, acc. to IEC 60332-3 and CEI 20-22II. With polyurethane sheath on request.

Max. operating voltage Max. operating current: Protection degree:

Ambient temperature:
Wire cross-section:
Minimum bending radius:
$60 \mathrm{Vac} / 75 \mathrm{Vdc}$
4 A
IP67 acc. to EN 60529
IP69K acc. to ISO 20653
(Protect the cables from direct high-pressure and high-temperature jets)
$-25^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$ for fixed installation
$-15^{\circ} \mathrm{C} \ldots+80^{\circ} \mathrm{C}$ for mobile installation
0.25 mm 2 (23 AWG)
> cable diameter $\times 15$

## Pin assignment

4 poles


| Pin | Colour |
| :---: | :---: |
| 1 | Brown |
| 2 | White |
| 3 | Blue |
| 4 | Black |

## Code structure

## VF CA4PD3K

| Cable sheath |  |
| :--- | :--- |
| P | PVC (standard) |
| U | PUR |

Connector type
D straight

Connection type
K M8x1
Cable length ( L )
11 metre
22 metres
33 metres (standard)
44 metres
55 metres (standard)
...
$0 \quad 10$ metres
Other lengths on request


No. of poles
44 poles

Attention! No stock items, minimum order quantity 100 pcs.

Field wireable M23 female connectors


## General data:

- Nickel-plated metal connector body
- Gold-plated contacts
- 12-pole or 19-pole versions

Technical data:
Max. operating voltage: Max. operating voltage: Max. operating current: Protection degree: Ambient temperature:
Tightening torque:
Contact type:
Pollution degree:
Switching cycles:

250 Vac (12-pole)
100 Vac (19-pole)
8 A
IP67 / IP69K
$-40^{\circ} \mathrm{C} \ldots+125^{\circ} \mathrm{C}$
1 ... 1.5 Nm
gold-plated (resistance $<3 \mathrm{~m} \Omega$ )
3
> 1000


## Pin configuration

## 12 poles


clockwise numbering counterclockwise numbering


Code structure Attention! The feasibility of a code number does not mean the effective availability of a product. Please contact our sales office.

## VF CBSM12TC07

## Connection type

S M23x1
Body material
M metal
No. of poles
1212 poles
19 19-pole

Cable diameter
$07 \varnothing 7 \ldots \varnothing 12$ mm
Pin connection type
C crimp connection (standard) $0.34 \ldots 1 \mathrm{~mm}^{2}$ solder connection $0.34 \ldots 1 \mathrm{~mm}^{2}$

## Connector type

T clockwise numbering (standard)
counterclockwise numbering

Note: For crimp connections, use, e.g., Knipex pliers, article number 975263.


## General data:

- Polyurethane connector body
- Class 5 copper conductors acc. to VDE 0295 (12-pole)
- Class 2 copper conductors acc. to VDE 0295 (19-pole)
- Gold-plated contacts (resistance < $5 \mathrm{~m} \Omega$ )
- Self-locking ring nut
- Cable with PVC sheath acc. to IEC 60332-3, CEI 20-22 II e CEI 20-35/1-2 (flame retarding)


## Technical data:

Max. operating voltage:
Max. operating current:
Protection degree:
250 Vac (12-pole)
100 Vac (19-pole)
IP67 acc. to EN 60529
IP69K acc. to ISO 20653
(Protect the cables from direct high-pressure and high-temperature jets)
Ambient temperature:
Wire cross-section:
$0.5 \mathrm{~mm}^{2}$ (20 AWG) (12-pole)
$0.34 \mathrm{~mm}^{2}$ (22 AWG) (19-pole)
> cable diameter $\times 15$
Minimum bending radius:
Pin assignment

| Pin assignment | 19-pole |
| :---: | :---: |


$\varnothing \mathrm{d}: 8.2 \mathrm{~mm}$ for 12-pole 8.6 mm for 19 poles

| Pin | Colour | Pin | Colour |
| :---: | :---: | :---: | :---: |
| 1 | White | 1 | White |
| 2 | Brown | 2 | Brown |
| 3 | Green | 3 | Green |
| 4 | Yellow | 4 | Yellow |
| 5 | Grey | 5 | Grey |
| 6 | Pink | 6 | Pink |
| 7 | Blue | 7 | Blue |
| 8 | Red | 8 | Red |
| 9 | Black | 9 | Black |
| 10 | Purple | 10 | Purple |
| 11 | Grey-Pink | 11 | Grey-Pink |
| 12 | Red-Blue | 12 | Red-Blue |
|  |  | 13 | White-Green |
|  |  | 14 | Brown-Green |
|  |  | 15 | White-Yellow |
|  |  | 16 | Yellow-Brown |
|  |  | 17 | White-Grey |
|  |  | 18 | Grey-Brown |
|  |  |  | White-Pink |

Attention! The feasibility of a code number does not mean the effective availability of a product. Please contact our sales office.

## VF CA12PD20S

| No. of poles |  |
| :--- | :--- |
| 12 | 12 -pole |
| 19 | 19 -pole |

Cable sheath
P PVC (standard)

Connection type
S M23x1

## Cable length ( L )

0 10 metres
2020 metres
Other lengths on request

## Connector type

D straight (standard)

## Articles

VF CA12PD0S
VF CA12PD20S
VF CA19PD0S
VF CA19PD20S
Attention! No stock items, minimum order quantity 50 pcs.

ATTENTION: always disconnect the power supply before removing the connector. The connector is not suitable for separation of electrical loads.


This particular design ensures high resistance to traction of the cable glands. All cable glands are also suitable for a wide range of cable diameters.
Suitable for circular cross-section cables only.

## Technical data:

Body and ring material:
Protection degree:
technopolymer without halogen IP67 acc. to EN 60529
Tightening torque:
$3 \ldots 4 \mathrm{Nm}$ (PG 13.5/M20)
$2 \ldots 2.5 \mathrm{Nm}$ (PG 11/M16)


|  | Article | Description | A | $\square_{M}$ | N | 0 | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | VF PAM25C7N | Cable gland $\mathrm{M} 25 \times 1.5$ for a cable from $\varnothing 10$ to $\varnothing 17 \mathrm{~mm}$ | $\bigcirc$ | 30 | 10 | 28 | M $25 \times 1.5$ |
|  | VF PAM20C6N | M $20 \times 1.5$ cable gland for one cable $\varnothing 6 \ldots 12 \mathrm{~mm}$ | ) | 24 | 9 | 24 | M20x1.5 |
|  | VF PAM20C5N | M $20 \times 1.5$ cable gland for one cable $\varnothing 5 \ldots 10 \mathrm{~mm}$ |  | 24 | 9 | 24 | M20x1.5 |
|  | VF PAM20C3N | $\mathrm{M} 20 \times 1.5$ cable gland for one cable $\varnothing 3 \ldots 7 \mathrm{~mm}$ | ) | 24 | 9 | 24 | M20x1.5 |
|  | VF PAM16C5N | M16x1.5 cable gland for one cable $\varnothing 5 \ldots 10 \mathrm{~mm}$ | ) | 22 | 7.5 | 23 | M16x1.5 |
|  | VF PAM16C4N | M16x1.5 cable gland for one cable $\varnothing 4 \ldots 8 \mathrm{~mm}$ |  | 22 | 7.5 | 23 | M16x1.5 |
|  | VF PAM16C3N | M16x1.5 cable gland for one cable $\varnothing 3 \ldots 7 \mathrm{~mm}$ | ) | 22 | 7.5 | 23 | M16x1.5 |
|  | VF PAM20CBN | M20x1.5 multi-hole cable gland for 2 cables $\varnothing 3 \ldots 5 \mathrm{~mm}$ | 0 | 24 | 9 | 23 | M20x1.5 |
|  | VF PAM20CDN | M20x1.5 multi-hole cable gland for 3 cables $\varnothing 1 \ldots 4 \mathrm{~mm}$ | 8 | 24 | 9 | 23 | M20x1.5 |
|  | VF PAM20CEN | M20x1.5 multi-hole cable gland for 3 cables $\varnothing 3 \ldots 5 \mathrm{~mm}$ | 8 | 24 | 9 | 23 | M20x1.5 |
|  | VF PAM20CFN | M20x1.5 multi-hole cable gland for 4 cables $\varnothing 1 \ldots 4 \mathrm{~mm}$ | 8 | 22 | 9 | 23 | M20x1.5 |
|  | VF PAP13C6N | PG 13.5 cable gland for one cable from $\varnothing 6 \ldots 12 \mathrm{~mm}$ |  | 24 | 9 | 24 | PG 13.5 |
|  | VF PAP13C5N | PG 13.5 cable gland for one cable from $\varnothing 5 \ldots 10 \mathrm{~mm}$ |  | 24 | 9 | 24 | PG 13.5 |
|  | VF PAP13C3N | PG 13.5 cable gland for one cable from $\varnothing 3 \ldots 7 \mathrm{~mm}$ | ) | 24 | 9 | 24 | PG 13.5 |
|  | VF PAP11C5N | PG 11 cable gland for one cable from Ø $5 \ldots 10 \mathrm{~mm}$ | ) | 22 | 7.5 | 23 | PG 11 |
|  | VF PAP11C4N | PG 11 cable gland for one cable from $\varnothing 4 \ldots 8 \mathrm{~mm}$ |  | 22 | 7.5 | 23 | PG 11 |
|  | VF PAP11C3N | PG 11 cable gland for one cable from Ø $3 \ldots 7 \mathrm{~mm}$ | $\bigcirc$ | 22 | 7.5 | 23 | PG 11 |

## Thread adapters

## Packs of $\mathbf{1 0 0} \mathbf{p c s}$.



Thread adapters make it possible to fulfil requests for switches with a different thread to those generally found in stock. This means it is possible to offer customers a single product type with various threaded connections, while only having to stock the product itself and many kinds of adapters.

## Technical data: <br> Body material:

Tightening torque:
glass fibre reinforced tech-
nopolymer
$3 \ldots 4 \mathrm{Nm}$


| Article | Description | X | Y | Z | K | $\square_{E}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| VF ADPG13-PG11 | Adapter from PG 13.5 to PG 11 | PG 13.5 | PG 11 | 9 | 12 | 22 |
| VF ADPG13-M20 | Adapter from PG 13.5 to M20×1.5 | PG 13.5 | M20x1.5 | 9 | 14 | 24 |
| VF ADPG13-1/2NPT | Adapter from PG 13.5 to 1/2 NPT | PG 13.5 | 1/2 NPT | 9 | 14 | 24 |
| VF ADPG11-1/2NPT | Adapter from PG 11 to 1/2 NPT | PG 11 | 1/2 NPT | 7 | 14 | 24 |
| VF ADPG11-PG13 | Adapter from PG 11 to PG 13.5 | PG 11 | PG 13.5 | 7 | 14 | 24 |
| VF ADM $20-1 / 2 N P T$ | Adapter from M20 $\times 1.5$ to $1 / 2$ NPT | $\mathrm{M} 20 \times 1.5$ | 1/2 NPT | 9 | 14 | 24 |

## Protection caps

Packs of $\mathbf{1 0} \mathbf{~ p c s .}$

|  | Technical data: <br> Body material: <br> Protection degree: <br> Tightening torque: <br> Cross-recessed screw: | technopolymer, self-extinguishing <br> IP67 acc. to EN 60529 and IP69K acc to ISO 20653 <br> 1.2 ... 1.6 Nm <br> PH3 | $\stackrel{4}{\infty}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| Article | Description |  | A | B |
| VF PTM20 | Protection cap M20x1.5 |  | 24 | M $20 \times 1.5$ |
| VF PTG13.5 | Protection cap PG13.5 |  | 24 | PG 13.5 |


|  |  | Technical data: <br> Body material: <br> Tightening torque: | technopolymer 1.2 ... 2 Nm |  | $\frac{\mathrm{S}}{\mathrm{~S}_{1}}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Article | Description |  | S | CH | P |
|  | VF DFPM25 | Plastic nut, threaded, M $25 \times 1.5$ |  | 6 | 32 | M $25 \times 1.5$ |
| - | VF DFPM20 | Plastic nut, threaded, M $20 \times 1.5$ |  | 6 | 27 | M20x1.5 |
| $\frac{0}{0}$ | VF DFPM16 | Plastic nut, threaded, M16x1.5 |  | 5 | 22 | M16x1.5 |
|  | VF DFPP13 | Plastic nut, threaded, PG13.5 |  | 6 | 27 | PG 13.5 |
|  | VF DFMM20 | M20x1.5 threaded nut in nickel-p | ed brass | 3 | 23 | M20x1.5 |

## Chock plugs

Packs of $\mathbf{1 0 0} \mathbf{p c s}$.


## Technical data:

Body material:
Protection degree:
Tightening torque:
technopolymer
IP54 acc. to EN 60529
$0.8 \ldots 1 \mathrm{Nm}$


Notes: Use a socket wrench for tightening.

| Article | Description | A |
| :---: | :--- | :---: |
| VF PFM20C8N | M20×1.5 chock plug for cables from $\varnothing 8 \ldots \varnothing 12 \mathrm{~mm}$ | 7.5 |
| VF PFM20C4N | M20x1.5 chock plug for cables from $\varnothing 4 \ldots \varnothing 8 \mathrm{~mm}$ | $\mathrm{M} 20 \times 1.5$ |

Torx safety screws Packs of $\mathbf{1 0}$ pcs.

Pan head screws with Torx fitting and pin, stainless steel.
Use a thread locker where required for applications acc. to. EN ISO 14119.

Article
VF VAM4X10BX-X
VF VAM4X15BX-X VF VAM $4 \times 20 B X-X$ VF VAM4X25BX-X VF VAM4X30BX-X

VF VAM5X10BX-X VF VAM5X15BX-X VF VAM5X20BX-X VF VAM5X25BX-X VF VAM5X35BX-X VF VAM5X45BX-X

## Description

M4×10 screw, with Torx T20 fitting, AISI 304 M4×15 screw, with Torx T20 fitting, AISI 304 M4×20 screw, with TorxT20 fitting, AISI 304 M4×25 screw, with Torx T20 fitting, AISI 304 M4×30 screw, with TorxT20 fitting, AISI 304 M5×10 screw, with Torx T25 fitting, AISI 304 M5x15 screw, with Torx T25 fitting, AISI 304 M5×20 screw, with TorxT25 fitting, AISI 304 M $5 \times 25$ screw, with TorxT25 fitting, AISI 304 M5×35 screw, with Torx T25 fitting, AISI 304 M5×45 screw, with TorxT25 fitting, AISI 304

## Bits for Torx safety screws



One-Way safety screws
Packs of $\mathbf{1 0}$ pcs.


Pan head screws with OneWay fitting in stainless steel.
This screw type cannot be removed or tampered with using common tools. Ideal for fixing safety device actuators in accordance with EN ISO 14119.

| Article | Description |
| :---: | :--- |
| VF VAM4X10BW-X | $M 4 \times 10$ screw, with OneWay fitting, AISI 304 |
| VF VAM4X15BW-X | $M 4 \times 15$ screw, with OneWay fitting, AISI 304 |
| VF VAM4X20BW-X | $M 4 \times 20$ screw, with OneWay fitting, AISI 304 |
| VF VAM4X25BW-X | $M 4 \times 25$ screw, with OneWay fitting, AISI 304 |
| VF VAM5X10BW-X | $M 5 \times 10$ screw, with OneWay fitting, AISI 304 |
| VF VAM5X15BW-X | $M 5 \times 15$ screw, with OneWay fitting, AISI 304 |
| VF VAM5X20BW-X | $M 5 \times 20$ screw, with OneWay fitting, AISI 304 |
| VF VAM5X25BW-X | $M 5 \times 25$ screw, with OneWay fitting, AISI 304 |

## Fixing plates



Metal fixing plate, for fixing rope switches on the ceiling
The plate is provided with bore holes for fasting switches of the FD, FL, FC, FP, FR, FM, FZ, FX, FK series. It is supplied without screws.

| Article | Description |
| :---: | :--- |
| VF SFP2 | Ceiling fixing plate |

## Fixing plates



Fixing plate (complete with fastening screws) provided with long slots for adjusting the operating point. Each plate is provided with two pairs of fixing holes, one for standard switches and one for switches with reset device. The actuator thus always has the same actuating point.

| Article | Description |
| :---: | :--- |
| VF SFP1 | Fixing plate (FR series) |
| VF SFP3 | Fixing plate (FX series) |



Technical data:
Protection degree:
Ambient temperature:
Operating voltage $U_{n}$ :

Tolerance on the
supply voltages:
Operating current:
Connection system:
Cross-section of rigid/flexible wires w. wire-end sleeve:
Wire cross-section with pre-insulated wire-end sleeve:
Cable stripping length (x):
Tightening torque.

These signalling lights with high luminosity LEDs are used for signalling that an electric contact has changed its state inside the switch. They can be installed only on switches of the FL, FX, FZ, FW, FG, NG or FS series by screwing them on one of the conduit entries not used for electric cables. They can be used for many different purposes: for example, in combination with a rope switch (e.g. FL 1878-M2) they can be used to signal (even from a distance) if the switch has been actuated.
In combination with safety switches with separate actuator (e.g. FL 693-M2), they can instead be used to signal whether or not the protection is closed correctly. In combination with solenoid safety switches (FS, FG or NG series), they can signal if the protection is locked or unlocked. If they are combined with any switch of the FL, FX, FW or FZ series they can be used to calibrate the actuator. The inner part can rotate in such a way that it can be wired and screwed on the switch without any risk of twisting the wires.

IP67 acc. to EN 60529 and IP69K acc. to ISO 20653
$-25^{\circ} \mathrm{C} \ldots+70^{\circ} \mathrm{C}$
$24 \mathrm{Vac} / \mathrm{dc}$
120 Vac
230 Vac
$\pm 15 \%$ of $U_{n}$
10 mA
PUSH-IN spring type
$\min .1 \times 0.34 \mathrm{~mm}^{2}(1 \times$ AWG 24)
max. $1 \times 1.5 \mathrm{~mm}^{2}(1 \times$ AWG 16)
$\mathrm{min} .1 \times 0.34 \mathrm{~mm}^{2}(1 \times$ AWG 24)
max. $1 \times 0.75 \mathrm{~mm}^{2}(1 \times$ AWG 18)
$\min .: 8 \mathrm{~mm}$
max.: 12 mm
$1.2 \ldots 2 \mathrm{Nm}$


## Code structure

## Operating voltage

```
24 Vac/dc
    120 Vac
    230 Vac
```


## Stock items

VF SL1A3PA1 VF SL1A5PA1

## Type of light source

A
standard LED with continuous light

Body design
Total height 40 mm ,
A spherical lens, threading $\mathrm{M} 20 \times 1.5 \mathrm{~mm}$

## Connection type

P PUSH-IN terminal strip

| Lens colour |  |
| :---: | :--- |
| $\mathbf{2}$ | White |
| $\mathbf{3}$ | Red |
| $\mathbf{4}$ | Green |
| $\mathbf{5}$ | Yellow |


[^0]:    Stock items
    VF CA5PD3M-MD
    VF CA5PD5M-MD
    VF CA5PDOM-MD
    VF CA8PD3M-MD
    VF CA8PD5M-MD

