

2017-2018

# **General Catalogue Safety**



#### M12 male connectors

All values in the drawings are in mm



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:

Ambient temperature:

Tightening torque:

Max. operating voltage: 250 Vac / 300 Vdc (4/5-pole)

30 Vac / 36 Vdc (8/12-pole)

Max. operating current: 4 A (4/5-pole)

2 A (8-pole) 1.5 A (12-pole)

Protection degree: IP67 acc. to EN 60529

IP69K acc. to ISO 20653

-25°C ... +80°C 1 ... 1.5 Nm

Wire cross-section: 0.5 mm² (20 AWG) for 4/5-pole

0.25 mm<sup>2</sup> (23 AWG) for 8-pole 0.14 mm<sup>2</sup> (26 AWG) for 12-pole

gold-plated

# Contact type: Pin assignment 4 poles

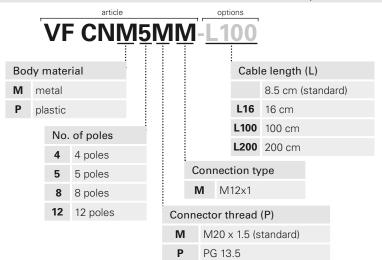
Pin



2 White 3 Blue Black 4 5 5 5 Grey Grey 6 Pink 6 Yellow Blue Black 7 8 8 Red 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.



Stock items

VF CNP4MM

VF CNP4PM

VF CNM5MM

VF CNM5PM

VF CNP5PM

VF CNP5MM

VF CNM4PM

VF CNM4PM

VF CNM8PM

VF CNM8PM

VF CNM12MM-L16

VF CNM4MM

**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 M20x1.5 thread and 16 cm cables.

Items with code on green background are stock items



#### M12 female connectors with cable

All values in the drawings are in mm



#### Technical data:

- Polyurethane connector body
- Class 6 copper conductors acc. to IEC 60228 mobile installation
- Gold-plated contacts (resistance  $< 5 \text{ m}\Omega$ )
- 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: 250 Vac / 300 Vdc (4/5-pole) 30 Vac / 36 Vdc (8/12-pole)

Max. operating current: 4 A (4-5-pole), 2 A (8-pole), 1.5 A (12-pole)

Protection degree: IP67 acc. to EN 60529

IP69K acc. to ISO 20653

(Protect the cables from direct high-pressure and high-temperature jets)

Ambient temperature: -25°C ... +80°C for fixed installation

-15°C ... +80°C for mobile installation 0.34 mm² (22 AWG) for 4-pole

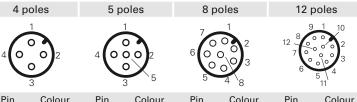
0.25 mm<sup>2</sup> (23 AWG) for 5/8-pole

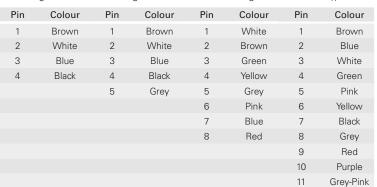
0.14 mm<sup>2</sup> (26 AWG) for 12-pole

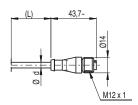
Minimum bending radius: > cable diameter x 15

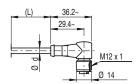
#### Pin assignment

Wire cross-section:









ø d: 5 mm for 4 and 5-pole 6 mm for 8 and 12 poles

#### **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

			1 1	:	: :									
No. of poles			Connection type											
	4	4 p	ooles			M	M1	2x1						
	5	5 p	ooles					No. of poles						
	8	8 p	ooles		: Cable length (L)			4	5	8	12			
<b>12</b> 12 poles			1	1	metr	e								
Cable sheath				2	2	2 metres								
P PVC (standard)		3	3	metr	es (st	andard)	)	•	•					
l	U PUR			4	4	metr	es							
1 011			5	5	metr	es (st	andard)	)	•	•	•	•		
Connector type														
	ı	D	straight (standa	ard)	0	1	0 met	tres (s	tandar	d)	•	•	•	•
<b>G</b> angled			Oth	her le	ngths	on req	uest							

#### Stock items

VF CA4PD3M VF CA4PD5M VF CA4PD0M VF CA5PD3M VF CA5PD5M VF CA5PD5M VF CA8PD5M VF CA8PD0M VF CA12PD5M VF CA12PD5M

**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.

12

Red-Blue

Items with code on green background are stock items

#### M12 male connectors with cable

All values in the drawings are in mm



#### Technical data:

- Polyurethane connector body
- Class 6 copper conductors acc. to IEC 60228 mobile installation
- Gold-plated contacts (resistance  $< 5 \text{ m}\Omega$ )
- 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: 250 Vac / 300 Vdc (5-pole)

30 Vac / 36 Vdc (8-pole)

Max. operating current: 4 A (5-pole), 2 A (8-pole) Protection degree: 1P67 acc. to EN 60529

IP69K acc. to ISO 20653

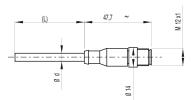
(Protect the cables from direct high-pressure

and high-temperature jets)

Ambient temperature: -25°C ... +80°C for fixed installation

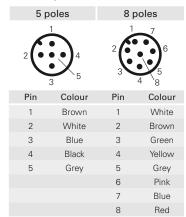
-15°C ... +80°C for mobile installation

Wire cross-section: 0.25 mm2 (23 AWG)
Minimum bending radius: > cable diameter x 15



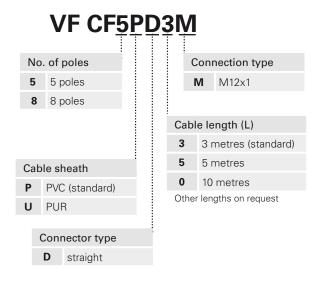
ø d: 5 mm for 5-pole 6 mm for 8-pole

#### Pin assignment



#### **Code structure**

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



#### Articles

VF CF5PD3M VF CF8PD3M

**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

All values in the drawings are in mm



#### General data

Technopolymer connector body

Gold-plated contacts

Maximum current

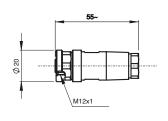
Screw terminals for cable screw fittings Max. operating voltages 250 Vac/dc (4 and 5-pole) 30 Vac/dc (8-pole)

4 A (4 and 5-pole)

2 A (8-pole)

Protection degree IP67 acc. to EN 60529 Ambient temperature -25°C ... +85°C

Wire cross-section 0.25 mm2 (23 AWG) ... 0.5 mm2 (20 AWG)



Article	Description	no. of poles
VF CBMP4DM04	Field wireable M12 female connector, straight, for Ø 4 Ø 6.5 mm multipolar cables	4
VF CBMP5DM04	Field wireable M12 female connector, straight, for Ø 4 Ø 6.5 mm multipolar cables	5
VF CBMP8DM04	Field wireable M12 female connector, straight, for Ø 4 Ø 7 mm multipolar cables	8

#### Field wireable M12 male connectors

All values in the drawings are in mm



#### General data

Technopolymer connector body

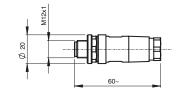
Gold-plated contacts
Screw terminals for cable screw fittings
250 Vac/dc (5-pole)

30 Vac/dc (8-pole) Maximum current 4 A (5-pole)

2 A (8-pole) IP67 acc. to EN 60529 Protection degree

-25°C ... +85°C Ambient temperature

Wire cross-section 0.25 mm<sup>2</sup> (23 AWG) ... 0.5 mm<sup>2</sup> (20 AWG)



Article	Description	no. of poles
VF CCMP5DM04	Field wireable M12 male connector, straight, for Ø 4 Ø 6.5 mm multipolar cables	5
VF CCMP8DM04	Field wireable M12 male connector, straight, for Ø 4 Ø 7 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 24Vdc 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•31•M•, ST D•71•M•

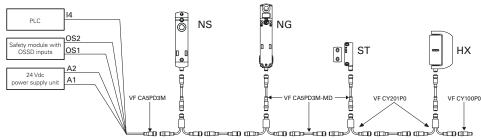
NG series safety switches with solenoid and RFID technology: Any item with an M12 connector for series connection with a "Y" connector or with option: K950, K951, K952.

NS: Any item with an M12 connector for series connection with a "Y" connector or with the option "integrated cable or connector", letter "Q". HX series safety hinge switches: HX BEE1-••M.

#### Electrical connection of the chain

Pin	Colour	Connect	ion
1	Brown	A1	Supply input +24 Vdc
2	White	OS1	Safety output
3	Blue	A2	Supply input 0 V
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 I4 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  $< 5 \text{ m}\Omega$ )

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 current:

Protection degree:

Max. operating voltage: 250 Vac / 300 Vdc (5-pole)

30 Vac / 36 Vdc (8-pole) 4 A (5-pole), 2 A (8-pole)

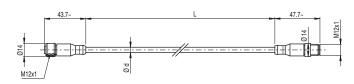
IP67 acc. to EN 60529 IP69K acc. to ISO 2653

(Protect the cables from direct high-pressure and high-temperature jets)

Ambient temperature: -25°C ... +80°C for fixed installation -15°C ... +80°C for mobile installation

0.5 mm<sup>2</sup> (20 AWG) (5-pole) Wire cross-section: 0.25 mm<sup>2</sup> (23 AWG) (8-pole)

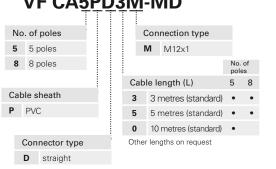
Minimum bending radius: > cable diameter x 15



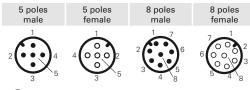
ø d: 6.4 mm for 5-pole 6 mm for 8-pole

#### **Code structure**

### VF CA5PD3M-MD



#### Pin assignment



T Stock items VF CA5PD3M-MD VF CA5PD5M-MD VF CA5PD0M-MD VF CA8PD3M-MD VF CA8PD5M-MD

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

Items with code on  ${\bf green}$  background are stock items

→ The 2D and 3D files are available at www.pizzato.com

All values in the drawings are in mm

#### M12 connectors, Y-shaped, for series connections

All values in the drawings are in mm



#### Technical data:

Polyurethane connector body

Class 6 copper conductors acc. to IEC 60228 Gold-plated contacts (resistance <  $5~m\Omega$ )

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: 30 Vac / 36 Vdc

Max. operating current: 4 A (5-pole), 2 A (8-pole)

Protection degree: IP67 acc. to EN 60529

IP69K acc. to ISO 2653

(Protect the cables from direct high-pressure

and high-temperature jets)

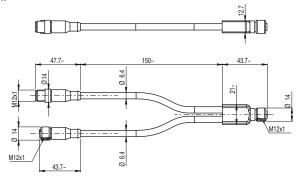
Ambient temperature: -25°C ... +80°C for fixed installation

-15°C ... +80°C for mobile installation

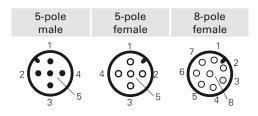
Wire cross-section: 0.5 mm² (20 AWG)
Minimum bending radius: > cable diameter x 15

#### Internal block diagram, Y-shaped connector

# female connector a large connec



#### Pin assignment



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

#### M12 terminating plugs for series connections

All values in the drawings are in mm



#### Technical data:

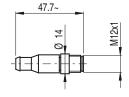
Polyurethane connector body

Gold-plated contacts (resistance < 5 m $\Omega$ )

Self-locking ring nut

Protection degree: IP67 acc. to EN 60529
Max. operating voltage: 250 Vac / 300 Vdc

Max. operating current: 4 A



#### Internal block diagram of the terminating plug







Article	Description
VF CY100P0	M12 terminating plugs for series connections, 4-pole

**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

→ The 2D and 3D files are available at www.pizzato.com

304

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



#### Technical data:

Material:

Material of the screws: Protection degree:

Conduit entries:

Ambient temperature:

Tightening torque of the cover screws:

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):

Self-extinguishing shock-proof polycarbonate with double insulation, UV-resistant and glass fibre reinforced, high shock resistance.

stainless steel

IP67 acc. to EN 60529, IP69K acc. to ISO 20653, with cable gland of equal or higher protection degree

2x M20 - 1/2 NPT knock-out upper and lower entries
2x M20 - 1/2 NPT - M25 knock-out side entries

• 2x M16 knock-out base entries

-40°C ... +80°C

1 ... 1.4 Nm

PUSH-IN spring type

 $\begin{array}{l} min.\ 1\times 0.34\ mm^2\,(1\times AWG\ 24)\\ max.\ 1\times 1.5\ mm^2\,(1\times AWG\ 16)\\ min.\ 1\times 0.34\ mm^2\,(1\times AWG\ 24)\\ max.\ 1\times 0.75\ mm^2\,(1\times AWG\ 18) \end{array}$ 

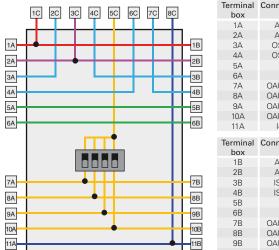
min.: 8 mm max.: 12 mm



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

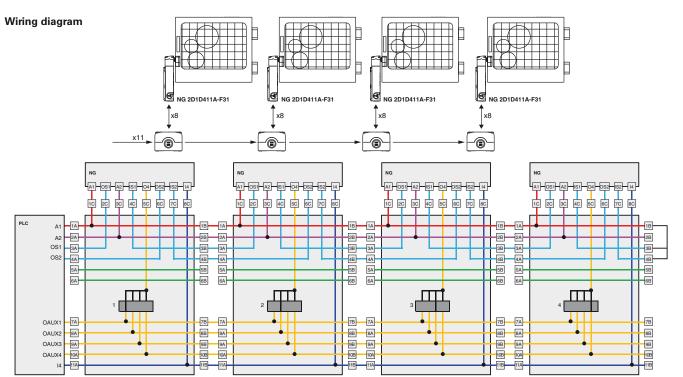


Terminal box	Connection	on		
1A	A1	Supply input +24 Vdc		
2A	A2	Supply input 0 V		
3A	OS1	Safety output		
4A	OS2	Safety output		
5A	Auxiliary connection			
6A	Auxiliary connection			
7A	OAUX1	Auxiliary output Oaux1		
8A	OAUX2	Auxiliary output Oaux2		
9A	OAUX3	Auxiliary output Oaux3		
10A	OAUX4	Auxiliary output Oaux4		
11A	14	Solenoid activation input		
Terminal	Connection	on		

Connectio	n
A1	Supply input +24 Vdc
A2	Supply input 0 V
IS1	Safety input
IS2	Safety input
	Auxiliary connection
	Auxiliary connection
OAUX1	Auxiliary output Oaux1
OAUX2	Auxiliary output Oaux2
OAUX3	Auxiliary output Oaux3
OAUX4	Auxiliary output Oaux4
14	Solenoid activation input
	A1 A2 IS1 IS2 OAUX1 OAUX2 OAUX3 OAUX4







#### M8 female connectors with cable

All values in the drawings are in mm



#### Technical data:

Polyurethane connector body

Class 6 copper conductors acc. to IEC 60228 Gold-plated contacts (resistance  $<5~\text{m}\Omega)$ 

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: 60 Vac / 75 Vdc

Max. operating current: 4 A

Protection degree: IP67 acc. to EN 60529 IP69K acc. to ISO 20653

(Protect the cables from direct high-pressure and high-temperature jets)

Ambient temperature:  $-25^{\circ}\text{C}$  ...  $+80^{\circ}\text{C}$  for fixed installation  $-15^{\circ}\text{C}$  ...  $+80^{\circ}\text{C}$  for mobile installation

Wire cross-section: 0.25 mm2 (23 AWG)
Minimum bending radius: > cable diameter x 15

# (L) 30.3~

#### Pin assignment

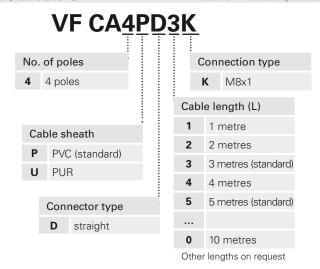
4 poles



Pin	Colour
1	Brown
2	White
3	Blue
4	Black

#### Code structure

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





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

#### Field wireable M23 female connectors

All values in the drawings are in mm



#### General data:

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

Technical data:

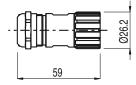
Max. operating voltage: 250 Vac (12-pole)
Max. operating voltage: 100 Vac (19-pole)

Max. operating current: 8 A

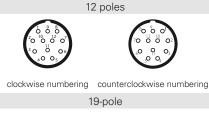
Protection degree: IP67 / IP69K
Ambient temperature: -40°C ... +125°C
Tightening torque: 1 ... 1.5 Nm

Contact type: gold-plated (resistance  $< 3 \text{ m}\Omega$ )

Pollution degree: 3
Switching cycles: > 1000



#### Pin configuration





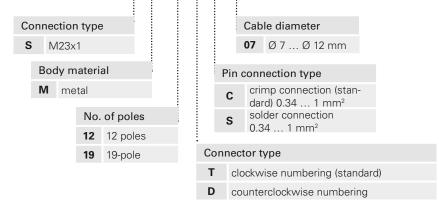
clockwise numbering

Article	Description		
VF AC2205	Mounting key.		
	Necessary for opening and wiring the connector.		

#### **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



Note: For crimp connections, use, e.g., Knipex pliers, article number 97 52 63.



Items with code on green background are stock items



#### M23 female connectors with cable

All values in the drawings are in mm



#### 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  $< 5 \text{ m}\Omega$ )
- 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: 250 Vac (12-pole) 100 Vac (19-pole)

Max. operating current: 4 A

Protection degree: IP67 acc. to EN 60529

IP69K acc. to ISO 20653

(Protect the cables from direct high-pressure and high-temperature jets)

-5°C ... +70°C Ambient temperature:

0.5 mm<sup>2</sup> (20 AWG) (12-pole) Wire cross-section: 0.34 mm<sup>2</sup> (22 AWG) (19-pole)

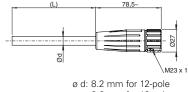
Minimum bending radius: > cable diameter x 15

#### Pin assignment

12-pole 19-pole





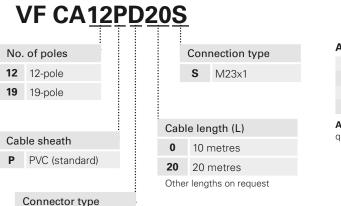


ø d: 8.2 mm for 12-pole 8.6 mm for 19 poles

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
		19	White-Pink

#### **Code structure**

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



#### **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.

Items with code on **green** background are stock items

**D** straight (standard)

#### Strain relief cable glands

Packs of 10 pcs.



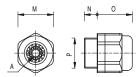
This particular design ensures high resistance to traction of the cable glands. All cable glands are also suitable for a wide range of cable diameters.

Suitable for circular cross-section cables only.

#### Technical data:

Body and ring material: Protection degree: Tightening torque:

technopolymer without halogen IP67 acc. to EN 60529 3 ... 4 Nm (PG 13.5/M20) 2 ... 2.5 Nm (PG 11/M16)



	Article	Description	Α	Ом	N	0	Р
	VF PAM25C7N	Cable gland M25x1.5 for a cable from Ø 10 to Ø 17 mm	0	30	10	28	M25x1.5
	VF PAM20C6N	M20x1.5 cable gland for one cable Ø 6 12 mm	0	24	9	24	M20x1.5
	VF PAM20C5N	M20x1.5 cable gland for one cable Ø 5 $\dots$ 10 mm	0	24	9	24	M20x1.5
	VF PAM20C3N	M20x1.5 cable gland for one cable Ø 3 7 mm	0	24	9	24	M20x1.5
<u>s</u>	VF PAM16C5N	M16x1.5 cable gland for one cable Ø 5 10 mm	0	22	7.5	23	M16x1.5
Metric threads	VF PAM16C4N	M16x1.5 cable gland for one cable Ø 4 8 mm	0	22	7.5	23	M16x1.5
≥ =	VF PAM16C3N	M16x1.5 cable gland for one cable Ø3 7 mm	0	22	7.5	23	M16x1.5
	VF PAM20CBN	M20x1.5 multi-hole cable gland for 2 cables Ø 3 5 mm	θ	24	9	23	M20x1.5
	VF PAM20CDN	M20x1.5 multi-hole cable gland for 3 cables Ø 1 4 mm	8	24	9	23	M20x1.5
	VF PAM20CEN	M20x1.5 multi-hole cable gland for 3 cables Ø 3 5 mm	8	24	9	23	M20x1.5
	VF PAM20CFN	M20x1.5 multi-hole cable gland for 4 cables Ø 1 4 mm	8	22	9	23	M20x1.5
	VF PAP13C6N	PG 13.5 cable gland for one cable from Ø 6 12 mm	0	24	9	24	PG 13.5
"	VF PAP13C5N	PG 13.5 cable gland for one cable from Ø 5 10 mm	0	24	9	24	PG 13.5
Threads PG	VF PAP13C3N	PG 13.5 cable gland for one cable from Ø 3 7 mm	0	24	9	24	PG 13.5
hre P	VF PAP11C5N	PG 11 cable gland for one cable from $\varnothing$ 5 10 mm	0	22	7.5	23	PG 11
_	VF PAP11C4N	PG 11 cable gland for one cable from Ø 4 8 mm	0	22	7.5	23	PG 11
	VF PAP11C3N	PG 11 cable gland for one cable from Ø 3 7 mm	0	22	7.5	23	PG 11

Thread adapters Packs of 100 pcs.



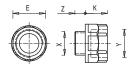
Thread adapters make it possible to fulfil requests for switches with a different thread to those generally found in stock. This means it is possible to offer customers a single product type with various threaded connections, while only having to stock the product itself and many kinds of adapters.

#### Technical data:

Body material: glass fibre reinforced tech-

nopolymer

Tightening torque: 3 ... 4 Nm



Article	Description	X	Υ	Z	K	OE
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 M20x1.5	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 ADM20-1/2NPT	Adapter from M20 x 1.5 to 1/2 NPT	M20 x 1.5	1/2 NPT	9	14	24

#### **Protection caps** Packs of 10 pcs.



Technical data: Body material:

technopolymer, self-extinguishing Protection degree: IP67 acc. to EN 60529 and IP69K acc. to ISO 20653

Tightening torque: 1.2 ... 1.6 Nm

Cross-recessed screw: РН3





Article	Description	Α	В
VF PTM20	Protection cap M20x1.5	24	M20x1.5
VF PTG13.5	Protection cap PG13.5	24	PG 13.5

All values in the drawings are in mm

Items with code on green background are stock items



#### Threaded nuts Packs of 10 pcs.



Technical data: Body material: Tightening torque:

technopolymer 1.2 ... 2 Nm





	Article	Description	S	СН	Р
	VF DFPM25	Plastic nut, threaded, M25x1.5	6	32	M25x1.5
Plastic	VF DFPM20	Plastic nut, threaded, M20x1.5	6	27	M20x1.5
Plas	VF DFPM16	Plastic nut, threaded, M16x1.5	5	22	M16x1.5
	VF DFPP13	Plastic nut, threaded, PG13.5	6	27	PG 13.5
Metal	VF DFMM20	M20x1.5 threaded nut in nickel-plated brass	3	23	M20x1.5

**Chock plugs** Packs of 100 pcs.



Technical data: Body material: technopolymer Protection degree: IP54 acc. to EN 60529 Tightening torque:

0.8 ... 1 Nm





Notes: Use a socket wrench for tightening.

Article	Description	Α	В
VF PFM20C8N	M20x1.5 chock plug for cables from Ø 8Ø 12 mm	7.5	M20x1.5
VF PFM20C4N	M20x1.5 chock plug for cables from Ø 4Ø 8 mm	3.5	M20x1.5

#### Torx safety screws

Packs of 10 pcs.



Pan head screws with Torx fitting and pin, stainless steel.

Use a thread locker where required for applications acc. to. EN ISO 14119.

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One-Way safety screws Packs of 10 pcs. Pan head screws with OneWay fitting in

> 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 VAM4X10BX-X	M4x10 screw, with Torx T20 fitting, AISI 304
VF VAM4X15BX-X	M4x15 screw, with Torx T20 fitting, AISI 304
VF VAM4X20BX-X	M4x20 screw, with Torx T20 fitting, AISI 304
VF VAM4X25BX-X	M4x25 screw, with Torx T20 fitting, AISI 304
VF VAM4X30BX-X	M4x30 screw, with Torx T20 fitting, AISI 304
VF VAM5X10BX-X	M5x10 screw, with Torx T25 fitting, AISI 304
VF VAM5X15BX-X	M5x15 screw, with Torx T25 fitting, AISI 304
VF VAM5X20BX-X	M5x20 screw, with Torx T25 fitting, AISI 304
VF VAM5X25BX-X	M5x25 screw, with Torx T25 fitting, AISI 304
VF VAM5X35BX-X	M5x35 screw, with Torx T25 fitting, AISI 304
VF VAM5X45BX-X	M5x45 screw, with Torx T25 fitting, AISI 304

#### Bits for Torx safety screws



Bits for Torx safety screws with pin, with  $14\,^{\prime\prime}$  hexagonal connection.

Article	Description
VF VAIT1T20	Bits for M4 screws with Torx T20 fitting
VF VAIT1T25	Bits for M5 screws with Torx T25 fitting
VF VAIT1T30	Bits for M6 screws with Torx T30 fitting

Items with code on **green** background are stock items

**pizzato** 

Article	Description
VF VAM4X10BW-X	M4x10 screw, with OneWay fitting, AISI 304
VF VAM4X15BW-X	M4x15 screw, with OneWay fitting, AISI 304
VF VAM4X20BW-X	M4x20 screw, with OneWay fitting, AISI 304
VF VAM4X25BW-X	M4x25 screw, with OneWay fitting, AISI 304
VF VAM5X10BW-X	M5x10 screw, with OneWay fitting, AISI 304
VF VAM5X15BW-X	M5x15 screw, with OneWay fitting, AISI 304
VF VAM5X20BW-X	M5x20 screw, with OneWay fitting, AISI 304
VF VAM5X25BW-X	M5x25 screw, with OneWay fitting, AISI 304

stainless steel.

#### 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)

#### **LED signalling lights**Packs of **5 pcs**.



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.

#### Technical data:

Protection degree: Ambient temperature: Operating voltage U<sub>n</sub>:

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.

IP67 acc. to EN 60529 and IP69K acc. to ISO 20653

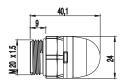
-25°C ... +70°C 24 Vac/dc 120 Vac 230 Vac

 $\pm 15\%$  of  $U_n$  10 mA

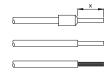
PUSH-IN spring type

min. 1 x 0.34 mm² (1 x AWG 24) max. 1 x 1.5 mm² (1 x AWG 16) min. 1 x 0.34 mm² (1 x AWG 24) max. 1 x 0.75 mm² (1 x AWG 18)

min.: 8 mm max.: 12 mm 1.2 ... 2 Nm







#### **Code structure**

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

# VF SL1A3PA1

#### Operating voltage

- 1 24 Vac/dc3 120 Vac
- **4** 230 Vac

Type of light source

**A** standard LED with continuous light

#### Body design

Total height 40 mm, spherical lens, threading M20x1.5mm

#### Connection type

P PUSH-IN terminal strip

#### Lens colour

- 2 White
- B Red
- 4 Green
- **5** Yellow

Stock items

VF SL1A3PA1 VF SL1A5PA1

Items with code on **green** background are stock items