



Member of the Phoenix Contact Group

## S F Series Power M23

Shielded Connectors M23  
Power 630 Volt

# Shielded Power Connectors M23 Series SF

## Technical Data



### Shell material

Machined components: Copper-Zinc alloy (CuZn)  
 die cast components: Zinc (GD-Zn)  
 Shell plating: Nickel (Ni) plated  
 Cable entry: max. 19 mm



### Insulator

Connector inserts: Polyamide (PA66) UL 94 V0

### Contacts

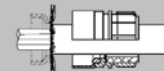
Contact material: Copper-Zinc alloy (CuZn)  
 Contact plating: Nickel (Ni) with gold (Au) passivated  
 Contact termination: crimp type



### Sealing

Sealing rings: Fluor rubber FPM  
 Gaskets: Fluor rubber FPM

All connectors with universal shielding material for different jacket and shield diameters.



### Temperature

Temperature (long term) Celsius: - 20 °C up to + 125°C  
 Temperature (long term) Fahrenheit: - 4 °F up to + 257 °F

### Mating

Mating cycles: Standard min. 50  
 Female coupling nuts: M23 screw locking  
 Male receptacles: M23 screw locking





### Protection

Protection class : IP 67 (mated) depends on which cable gland is used


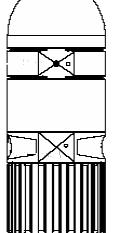
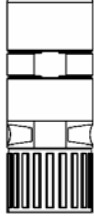
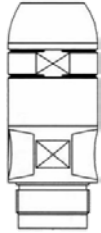
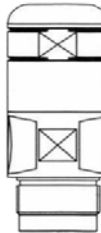
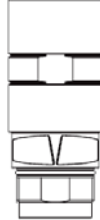
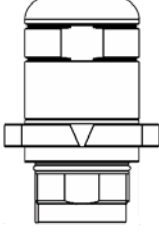
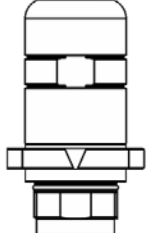



EMC shielding

					
Number of positions	6	8			
Number of contacts	5 + PE	4+3+PE			
Contact dia. (mm Ø)	2	1 2 2			
Rated current at 25° (A)	30	9/30			
Rated voltage (V)	630	250/630			
Test voltage (V)	6,000	4,000/6,000			
Surge voltage category	III	III			
Installation altitude above sea level	3,000 m	3,000 m			
Wiring size AWG	24-14	28-18			
Wiring size AWG	24-12	24-12			

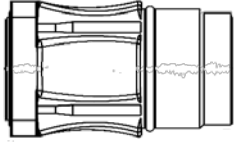
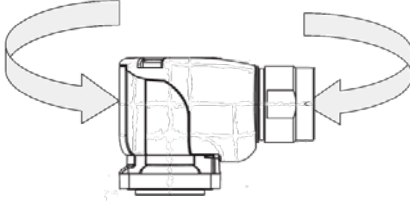
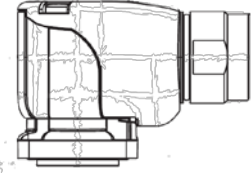
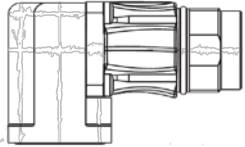
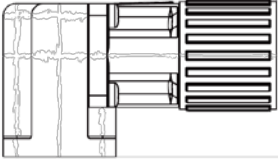
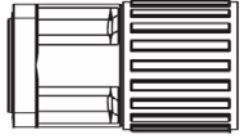


Shielded Power Connectors M23 Series SF  
Shell styles 8, 8L, 9, 9L, R4, F4, C0, CL, WK

<b>SF-xxxxxxx8xxx</b> <b>page C-K-04</b>	<b>SF-xxxxxxx8Lxx</b> <b>page C-K-04</b>	<b>SF-xxxxxxxR4xx</b> <b>page C-K-04</b>
Cable connector, straight with female coupling nut cable entry max. 14 mm universal shielding material	Cable connector, straight with female coupling nut cable entry max. 18 mm universal shielding material	Cable connector, straight with female coupling nut open endbell M20x1.5 universal shielding material
 <b>style 8</b>	 <b>style 8 long</b>	 <b>style R4</b>
<b>SF-xxxxxxx9Lxx</b> <b>page C-K-05</b>	<b>SF-xxxxxxx9xx</b> <b>page C-K-05</b>	<b>SF-xxxxxxxF4xx</b> <b>page C-K-05</b>
Cable connector, straight with male thread cable entry max. 18 mm universal shielding material	Cable connector, straight with male thread cable entry max. 14 mm universal shielding material	Cable connector, straight with male thread open endbell M20x1.5 universal shielding material
 <b>style 9L</b>	 <b>style 9</b>	 <b>style F4</b>
<b>SF-xxxxxxxC0xx</b> <b>page C-K-06</b>	<b>SF-xxxxxxxCLxx</b> <b>page C-K-06</b>	<b>SF-xxxxxxxWKxx</b> <b>page C-K-07</b>
Cable connector, straight with male thread cable entry max. 14 mm front / rear mount flange	Cable connector, straight with male thread cable entry max. 18 mm front / rear mount flange	Panel connector, straight with male thread flat design, axial O-ring square flange 28 mm □
 <b>style C0</b>	 <b>style CL</b>	 <b>style WK</b>

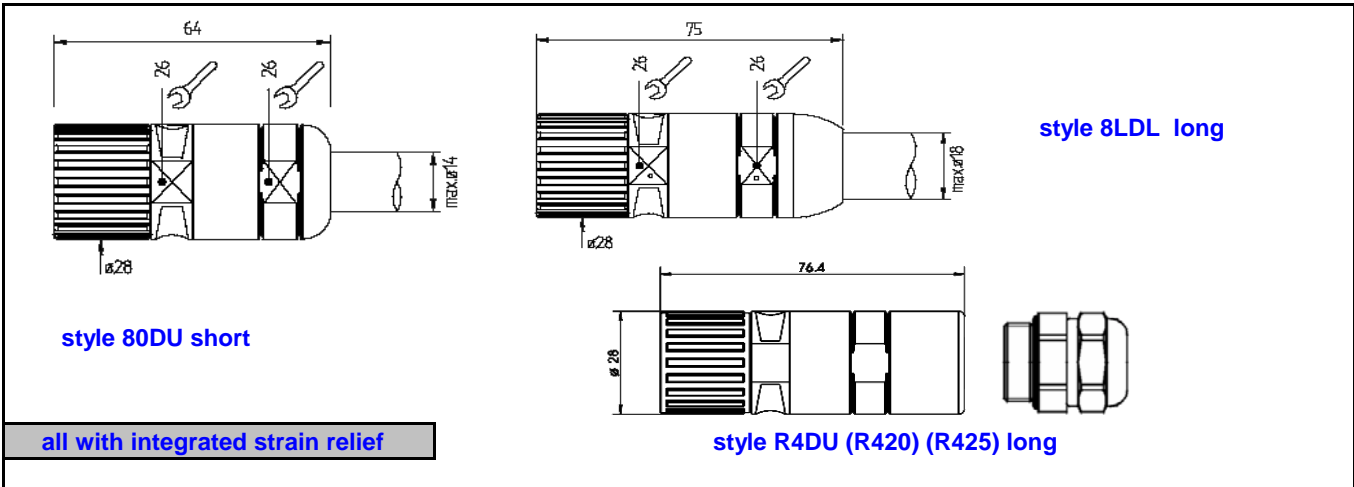
Shielded Power Connectors M23 Series SF  
 Shell styles WA, AD,AC, AF, AK, A2, YW, Y0



SF-xxxxxxxWAxx page C-K-07	SF-xxxxxxxAD(AC)xx page C-K-08	SF-xxxxxxxAF(AK)xx page C-K-09
Panel connector, straight with male thread axial O-ring square flange 26 mm □	Panel connector, right angled with male thread axial O-ring, rotatable square flange 26/28 mm □	Panel connector, right angled with male thread axial O-ring, fixed square flange 26/28 mm □
 <p style="text-align: center;">style WA</p>	 <p style="text-align: center;">style AD/AC</p>	 <p style="text-align: center;">style AF/AK</p>
SF-xxxxxxxA2xx page C-K-10	SF-xxxxxxxYWxx page C-K-11	SF-xxxxxxxY0x page C-K-11
Panel connector, right angled with male thread axial O-ring, fixed square flange 26 mm □	Panel connector, right angled with female coupling nut axial O-ring, fixed square flange 26 mm □	Panel connector, straight with female coupling nut axial O-ring square flange 26 mm □
 <p style="text-align: center;">style A2</p>	 <p style="text-align: center;">style YW</p>	 <p style="text-align: center;">style Y0</p>



**Shielded Power Connectors M23 Series SF**  
 fits all SF Connectors with male thread  
 Shell style 80, 8L, R4



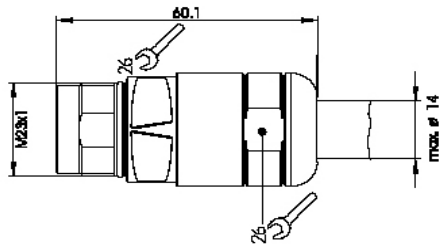
**Caps and accessories:** pages B-H-01...  
**Mounting tools:** pages B-E-01...  
**Assembly instructions:** page B-D-20  
**Crimp tools for contacts:** pages B-B-03...  
**Crimp contacts:** pages B-C-40...

We also deliver as a connector set.  
 Connector with crimp insert - and  
 the contacts are separate included.  
 Please ask for P/N

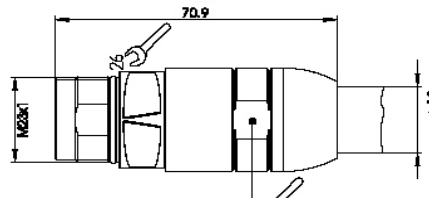
Part Number	SF-	x	x	x	x	x	x	x	x	x	x		
<b>Please fill in the part number of your desired connector insert</b>  6 position female (5+E) crimp insert w/o contacts  8 position female (4+3+E) crimp insert w/o contacts												8 0 D U S short version	
												cable entry 7.5-14 mm	
													8 0 D U short version
													cable entry 7.5-14 mm
													8 L D L long version
													cable entry 7.5-18 mm
 <b>f.e. SF-xxxxxxxR4DU</b>   <b>f.e. SF-xxxxxxxR425</b>												R 4 D U long version	
												endbell open	
													with thread M20x1.5
													R 4 2 0 long version
												endbell M20x1.5	
												with IP 68 cable gland	
												cable Ø 9-14 mm	
												R 4 2 5 long version	
												endbell M25x1.5	
												with IP 68 cable gland	
												cable Ø 13-19 mm	
												(with adaptor)	



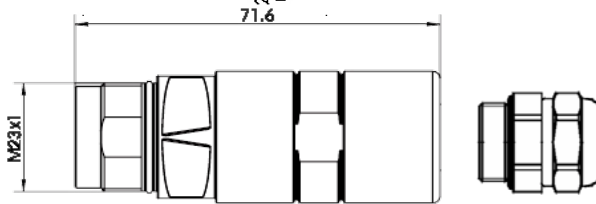
**Shielded Power Connectors M23 Series SF**  
 fits all SF Connectors with female coupling nut  
 Shell style 90, 9L, F4



style 90DU short



style 9LDL long

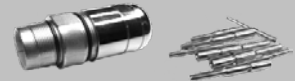


style F4DU (F420) (F425) long

all with integrated strain relief

**Caps and accessories:** pages B-H-01...  
**Mounting tools:** pages B-E-01...  
**Assembly instructions:** page B-D-21  
**Crimp tools for contacts:** pages B-B-03...  
**Crimp contacts:** pages B-C-40...

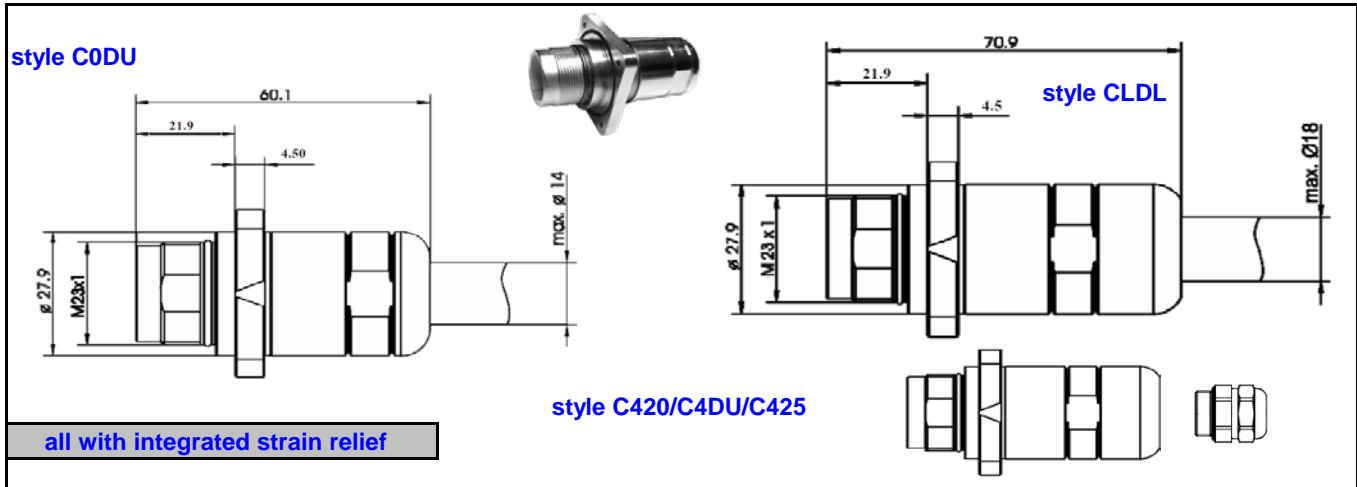
We also deliver as a connector set.  
 Connector with crimp insert - and  
 the contacts are separate included.  
 Please ask for P/N



Part Number	SF-	x	x	x	x	x	x	x	x	x	x	
Please fill in the part number of your desired connector insert												
6 position male (5+E) crimp insert w/o contacts												9 0 D U short version cable entry 14 mm
8 position male (4+3+E) crimp insert w/o contacts												9 L D L long version cable entry 18 mm
6 position male (5+E) crimp insert w/o contacts												5 E P 1 N 8 A
8 position male (4+3+E) crimp insert w/o contacts												7 E P 1 N 8 A
f.e. SF-xxxxxxx9LDL												F 4 D U long version endbell open with thread M20x1.5
f.e. SF-xxxxxxxF4DU												F 4 2 0 long version endbell M20x1.5 with IP 68 cable gland cable Ø 9-14 mm
												F 4 2 5 long version endbell M25x1.5 with IP 68 cable gland cable Ø 13-19 mm (with adaptor)



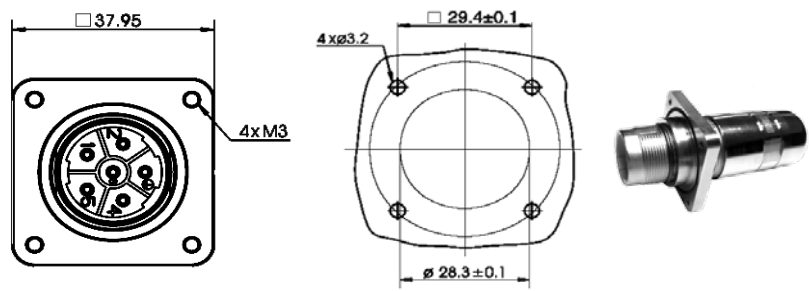
**Shielded Power Connectors M23 Series SF**  
 fits all SF Connectors with female coupling nut  
 Shell style C0, CL, C4 • front / rear mount •



**Caps and accessories:** pages B-H-01...  
**Mounting tools:** pages B-E-01...  
**Assembly instructions:** page B-D-24  
**Crimp tools for contacts:** pages B-B-03...  
**Crimp contacts:** pages B-C-40...

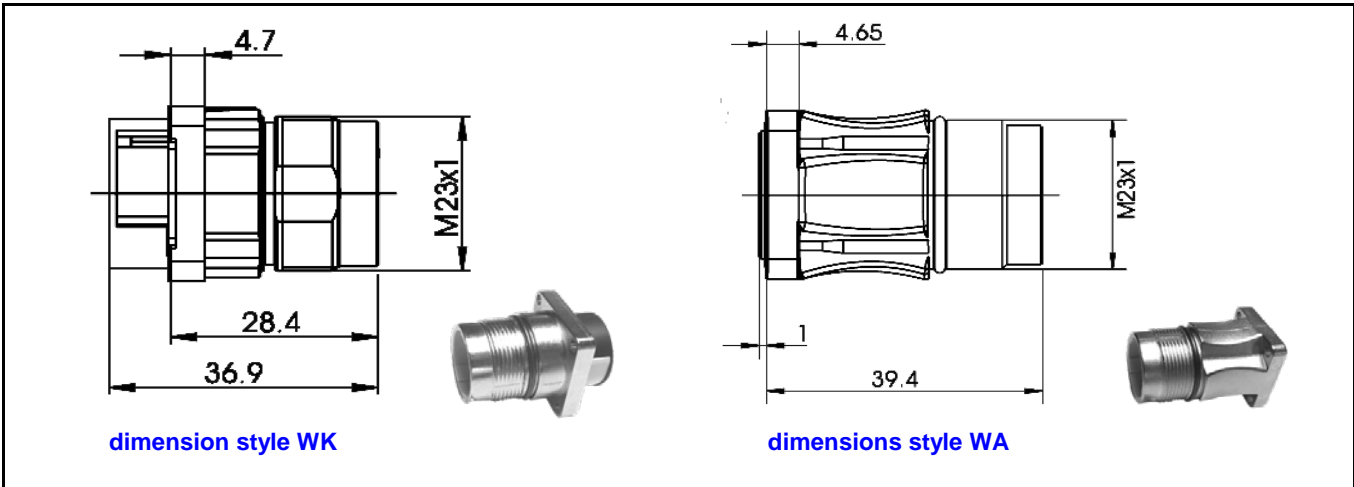
We also deliver as a connector set.  
 Connector with crimp insert - and  
 the contacts are separate included.  
 Please ask for P/N

Part Number	SF-	x	x	x	x	x	x	x	C	x	x	x	
Please fill in the part number of your desired connector insert													
6 position male (5+E) crimp insert w/o contacts		5	E	P	1	N	8	A		0	D	U	short version cable entry 7.5-14 mm
8 position male (4+3+E) crimp insert w/o contacts		7	E	P	1	N	8	A		L	D	L	long version cable entry 7.5-18 mm
										4	D	U	long version endbell open with thread M20x1.5
										4	2	0	long version endbell M20x1.5 with IP 68 cable gland cable Ø 9-14 mm
										4	2	5	long version endbell M25x1.5 with IP 68 cable gland cable Ø 13-19 mm (with adaptor)





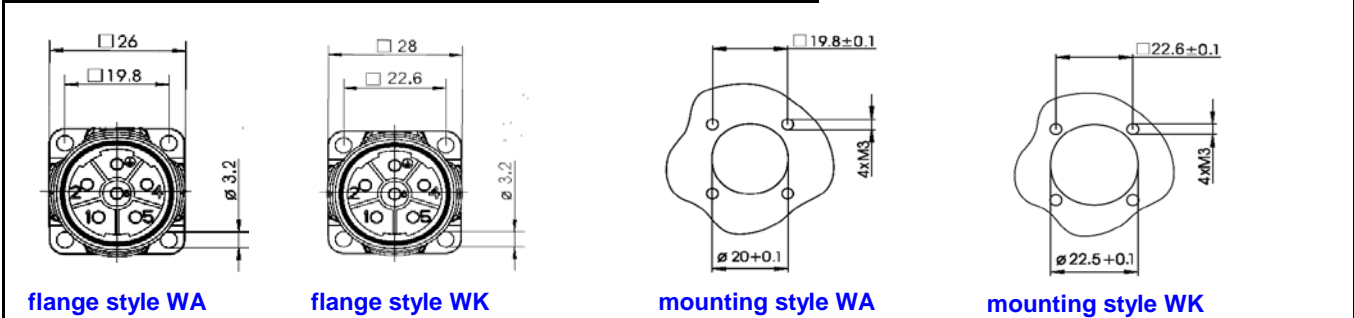
**Shielded Power Connectors M23 Series SF**  
 fits all SF Connectors with female coupling nut  
 Shell style WK, WA • front mount •



**Caps and accessories:** pages B-H-01...  
**Mounting tools:** pages B-E-01...  
**Assembly instructions:** page B-D-28  
**Crimp tools for contacts:** pages B-B-03...  
**Crimp contacts:** pages B-C-40...

We also deliver as a connector set.  
 Connector with crimp insert - and the contacts are separate included.  
 Please ask for P/N

Part Number	SF-	x	x	x	x	x	x	x	W	x	x	x	
Please fill in the part number of your desired connector insert										K	O	O	flat design, axial O-ring
6 position male (5+E) crimp insert w/o contacts													flange 28 mm □ 4 holes 3.2 mm Ø
8 position male (4+3+E) crimp insert w/o contacts										A	O	O	with axial O-ring flange 26 mm □ 4 holes 3.2 mm Ø
6 position male (5+E) crimp insert w/o contacts			5	E	P	1	N	8	A				
8 position male (4+3+E) crimp insert w/o contacts			7	E	P	1	N	8	A				



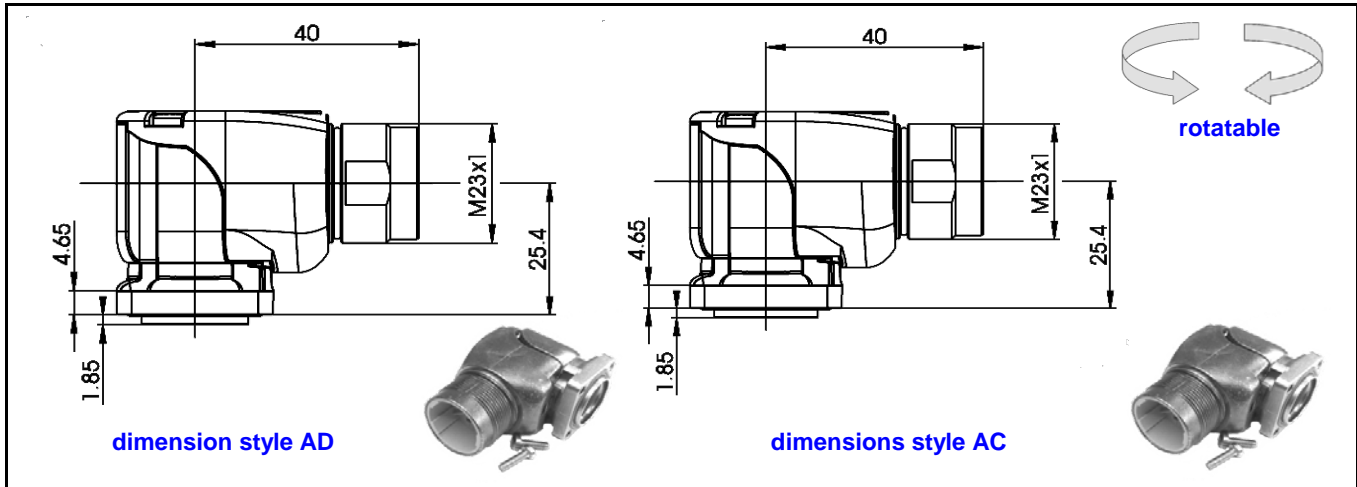




# Shielded Power Connectors M23 Series SF

fits all SF Connectors with female coupling nut

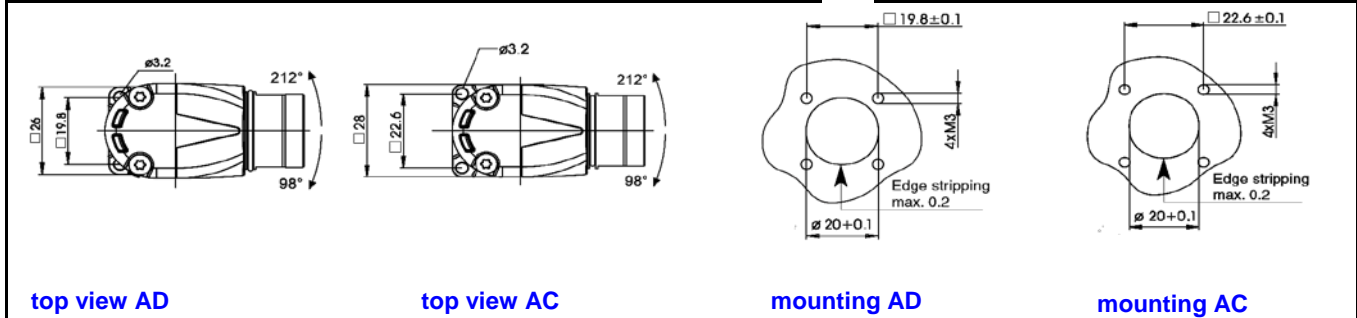
Shell style AD, AC • front mount, right angled •



**Caps and accessories:** pages B-H-01...  
**Mounting tools:** pages B-E-01...  
**Assembly instructions:** page B-D-23  
**Crimp tools for contacts:** pages B-B-03...  
**Crimp contacts:** pages B-C-40...

We also deliver as a connector set.  
 Connector with crimp insert - and  
 the contacts are separate included.  
 Please ask for P/N

Part Number	SF-	x	x	x	x	x	x	x	A	x	x	x
Please fill in the part number of your desired connector insert												
6 position male (5+E) crimp insert w/o contacts		5	E	P	1	N	8	A		D	O	O
												axial O-ring, rotatable
												flange 26 mm □
												4 holes 3.2 mm Ø
8 position male (4+3+E) crimp insert w/o contacts		7	E	P	1	N	8	A		C	O	O
												axial O-ring, rotatable
												flange 28 mm □
												4 holes 3.2 mm Ø

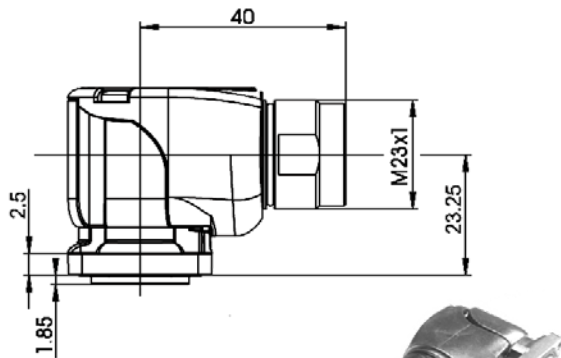




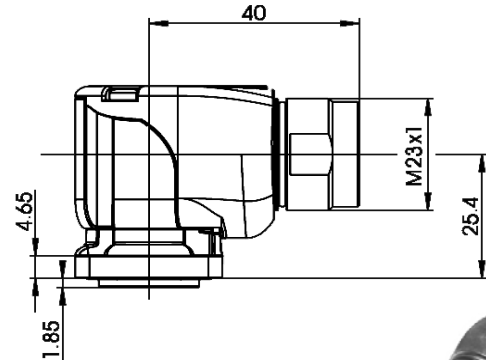
# Shielded Power Connectors M23 Series SF

fits all SF Connectors with female coupling nut

Shell style AF, AK • front mount, right angled •



dimension style AF



dimensions style AK

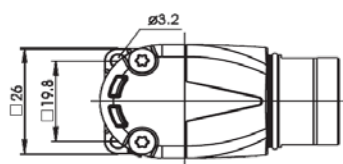


**Caps and accessories:** pages B-H-01...  
**Mounting tools:** pages B-E-01...  
**Assembly instructions:** page B-D-23  
**Crimp tools for contacts:** pages B-B-03...  
**Crimp contacts:** pages B-C-40...

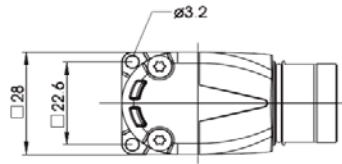
We also deliver as a connector set.  
 Connector with crimp insert - and  
 the contacts are separate included.  
 Please ask for P/N



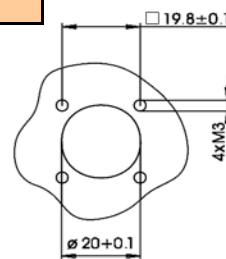
Part Number	SF-	x	x	x	x	x	x	x	A	x	x	x
Please fill in the part number of your desired connector insert												
6 position male (5+E) crimp insert w/o contacts		5	E	P	1	N	8	A		F	O	O
												axial O-ring
												flange 26 mm <input type="checkbox"/>
												4 holes 3.2 mm Ø
8 position male (4+3+E) crimp insert w/o contacts		7	E	P	1	N	8	A		K	O	O
												axial O-ring
												flange 28 mm <input type="checkbox"/>
												4 holes 3.2 mm Ø



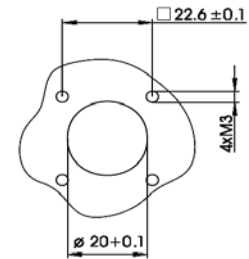
top view AF



top view AK



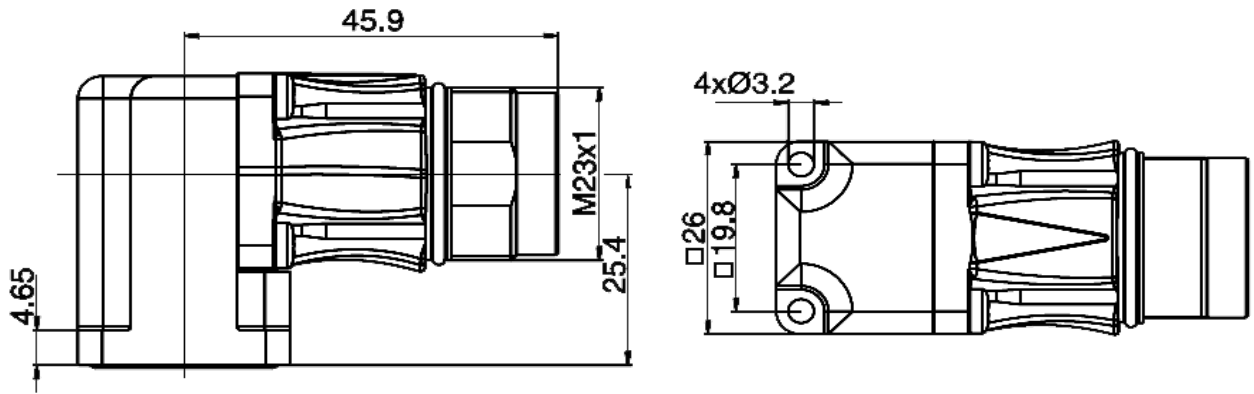
mounting AF



mounting AK



Shielded Power Connectors M23 Series SF  
 fits all SF Connectors with female coupling nut  
 Shell style A2 • front mount, right angled •



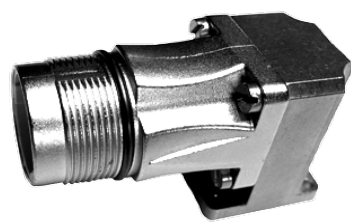
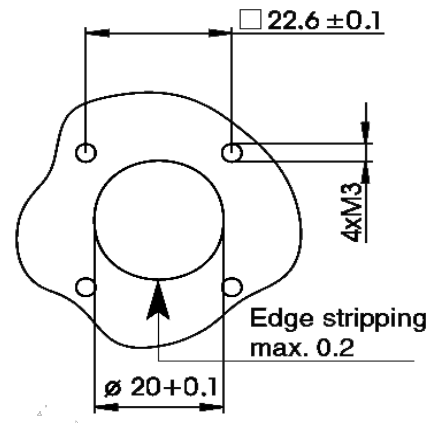
Caps and accessories: pages B-H-01...  
 Mounting tools: pages B-E-01...  
 Assembly instructions: page B-D-22  
 Crimp tools for contacts: pages B-B-03...  
 Crimp contacts: pages B-C-40...

We also deliver as a connector set.  
 Connector with crimp insert - and  
 the contacts are separate included.  
 Please ask for P/N

Part Number	SF-	x	x	x	x	x	x	x	A	2	0	0
-------------	-----	---	---	---	---	---	---	---	---	---	---	---

Please fill in the part number of your desired connector insert

6 position male (5+E) crimp insert w/o contacts		5	E	P	1	N	8	A
8 position male (4+3+E) crimp insert w/o contacts		7	E	P	1	N	8	A

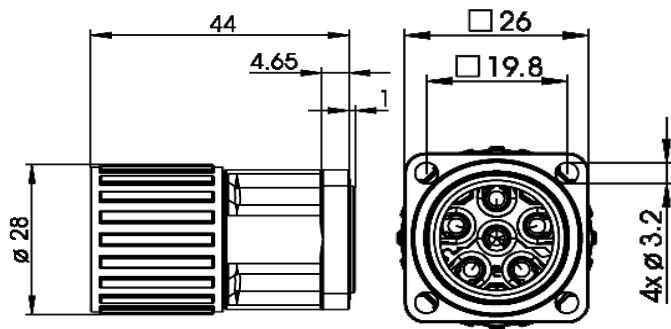




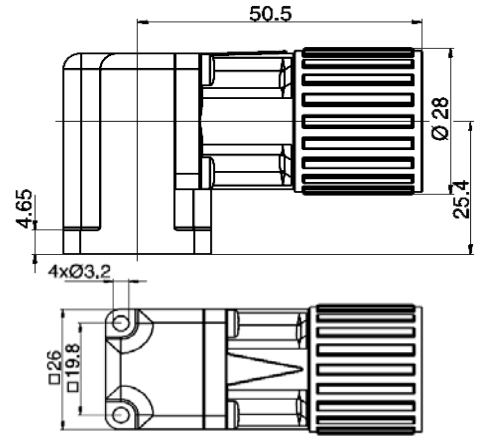
# Shielded Power Connectors M23 Series SF

fits all SF Connectors with male thread

Shell style YW, Y0 • front mount, straight / right angled •



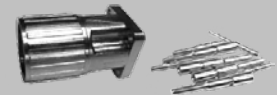
dimensions Y000



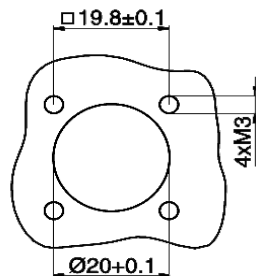
dimensions YW00

- Caps and accessories: pages B-H-01...
- Mounting tools: pages B-E-01...
- Assembly instructions: page B-D-29
- Crimp tools for contacts: pages B-B-03...
- Crimp contacts: pages B-C-40...

We also deliver as a connector set.  
Connector with crimp insert - and  
the contacts are separate included.  
Please ask for P/N

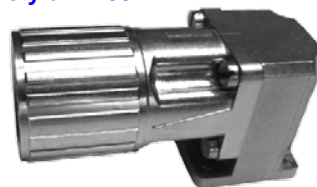


Part Number	SF-	x	x	x	x	x	x	x	Y	x	x	x
Please fill in the part number of your desired connector insert												
6 position female (5+E) crimp insert w/o contacts		5	E	S	1	N	8	A		W	O	O
8 position female (4+3+E) crimp insert w/o contacts		7	E	S	1	N	8	A		O	O	O
												right angled axial O-ring, square flange 4 holes 3.2 mm Ø flange size 26 mm □
												straight axial O-ring, square flange 4 holes 3.2 mm Ø flange size 26 mm □



mounting holes  
style YW00 and Y000

style YW00



style Y000

