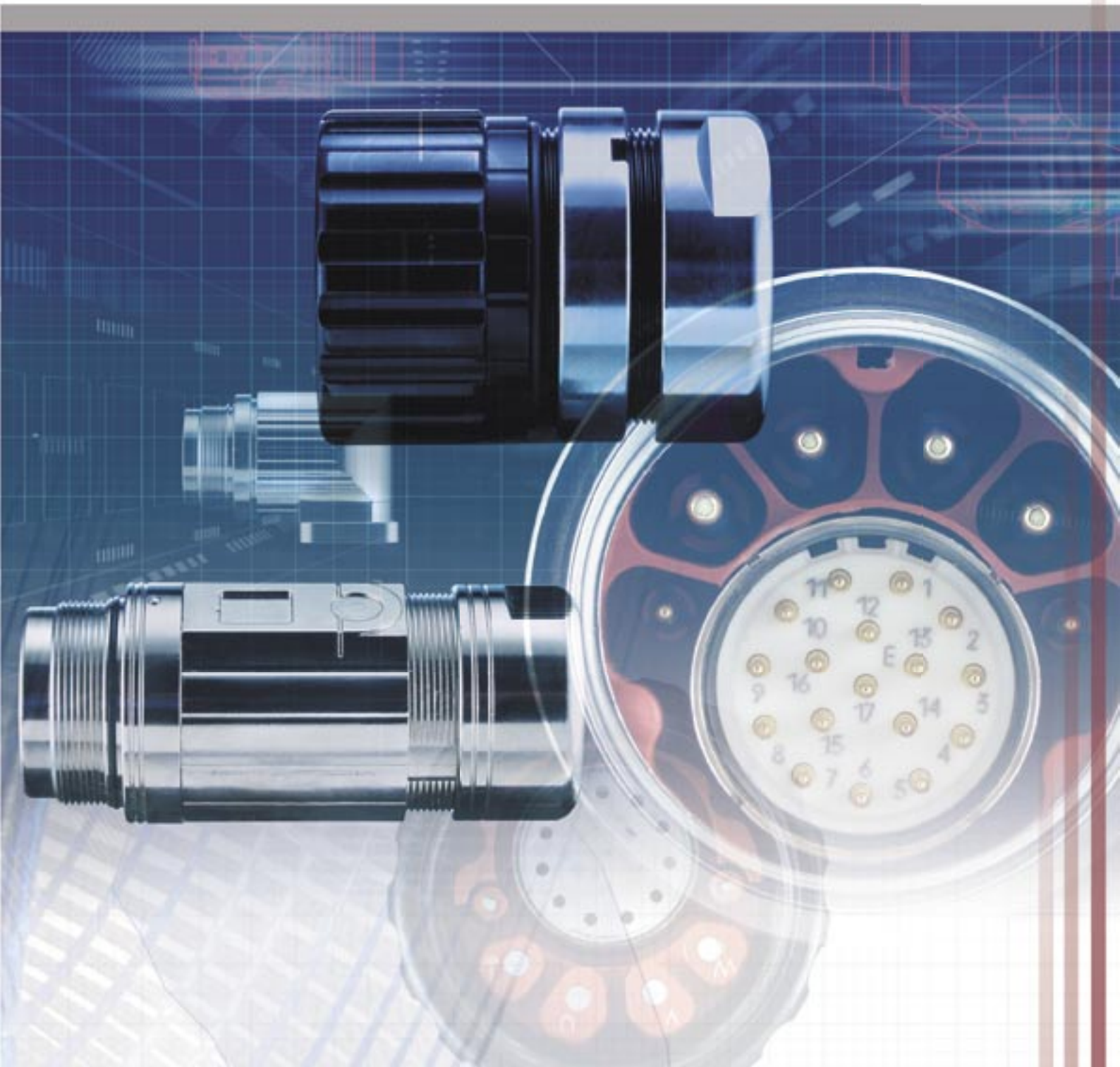




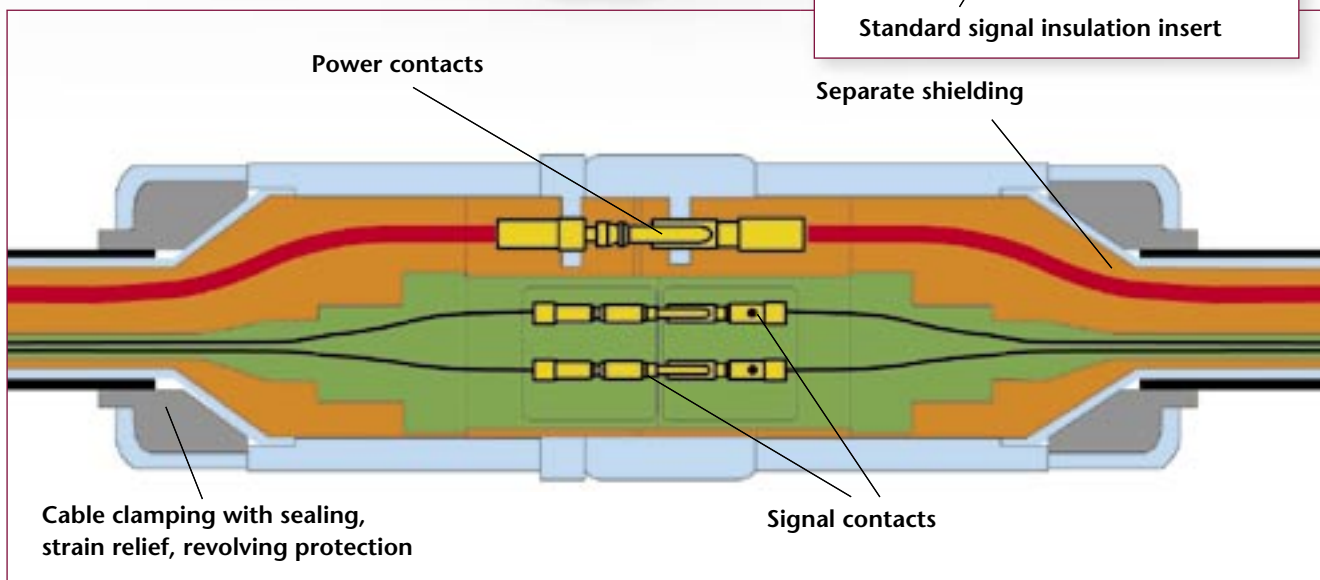
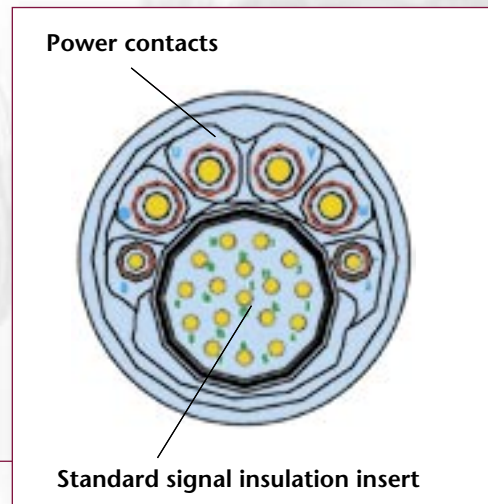
F SERIES Combined Circular Connectors TWINTEC



TWINTEC combined circular connectors. A clever way of innovation.

Signal and power contacts, combined in a single housing – that's the simple and revolutionary idea of INTERCONTEC TWINTEC technology.

Separate shielding of signal and power wires provides best EMC conformity.



F Series connectors are available in the following housing designs:

- Plug
- Bushing
- Extension
- Receptacle, straight with flexible orientation
- Receptacle, straight with integrated flange
- Receptacle angled with integrated flange
- Receptacle angled with connecting thread M23 x 1, flexible orientation
- Receptacle angled with connecting thread M34 x 0,75, flexible orientation

No. of contacts:

- 15-to 25 contacts versions (depending on signal insulation insert selected)

Electrical data:

Max. voltage (AC/DC): 630 V
Max. current: 30 A

Ordering information F Series combined circular connectors

All standard connectors are published in this catalog. However, this catalog does not provide customer specific designs or variations.

If you are looking for an application optimized solution, don't hesitate to contact us.

Any questions? Please call our technical sales staff – phone +49 (0)9962-20020.

F **ST** **A** **134** **MR** **60** **67** **0003** **000**

SERIES
F = TWINTEC combined circular connectors

HOUSING DESIGNS
 ST = Plug
 DF = Bushing
 KU = Extension
 EG = Receptacle, straight
 EW = Receptacle, angled

STANDARD HOUSING SURFACE
 A = Nickel plated
 D = Chrome plated (black)

INSULATION INSERTS COMBINATIONS
 Component related code, e.g. 134

CONTACT, CONNECTION
M **R**
 1st. letter M = Male contact
 2nd. letter R = Crimping
 F = Female contact

CONTACT TYPE
 Component related code, e.g. 60

CABLE CLAMPING
 Cable diameter related code, e.g. 67

DESIGN VARIATIONS
 See table page F14 ff.

PACKAGING
 Standard packaging code: 000



Plug housing



Extension housing
Vibration protection

ST

KU



Bushing housing
Axial sealing

DF

Please add the corresponding code to the ordering information

STANDARD HOUSING SURFACES:

A = Nickel plated
D = Chrome plated (black)

F [ST] [DF] [A/D] [X][X][X] [X][X] [X][X] [X][X] [X][X][X][X] 000



Housing designs

Note: Distinction between housing designs with identical ordering code (e.g. EG), please see catalog section DESIGN VARIATIONS [x][x][x][x] (see page F14 ff.)



Receptacle straight M34 x 0,75
Axial sealing, vibration protection

EG



Receptacle angled integrated flange 30 x 60 mm
Axial sealing, vibration protection

EW



Receptacle straight integrated flange 39 x 35 mm
Axial sealing, vibration protection

EG



Receptacle angled connecting thread M23 x 1
Radial sealing, vibration protection

EW



Receptacle angled connecting thread M34 x 0,75
Radial sealing, vibration protection

EW

STANDARD HOUSING SURFACES:

- A = Nickel plated
- D = Chrome plated (black)





PLUG

BUSHING



18 contacts

23 contacts

25 contacts



Signal insulation insert
E type, 12 contacts

Signal insulation insert
P type, 17 contacts

Signal insulation insert
P type, [16+3] contacts

1 3 4

1 9 5

6 5 6



EXTENSION



18 contacts

23 contacts

25 contacts



Signal insulation insert
P type, 12 contacts

Signal insulation insert
E type, 17 contacts

Signal insulation insert
E type, [16+3] contacts

3 9 8

3 2 0

6 5 5





RECEPTACLES STRAIGHT



RECEPTACLES ANGLED



18 contacts



Signal insulation insert
P type, 12 contacts

2 2 6



23 contacts



Signal insulation insert
E type, 17 contacts

1 8 9



25 contacts



Signal insulation insert
E type, [16+3] contacts

6 5 5



Contact combinations
18 contacts



PLUG

BUSHING

18 contacts combinations



Contacts for
TWINTEC insulation insert



Contacts for
signal insulation inserts
12 contacts



4x HC crimping
female contact 2,0mm
Crimp. range: max. 2,5mm²



2x HC crimping female contact 1,0mm
Crimp. range: max. 1,0mm²



12x HC crimping female contact 1,0mm
Crimp. range: max. 1,0mm²

FR 60

Please select the corresponding
ordering code, e.g. **FR 60**





PLUG

BUSHING

23 contacts combinations



Contacts for TWINTEC insulation insert



Contacts for signal insulation insert
17 contacts



4x HC crimping female contact 2,0mm
Crimp. range: max. 2,5mm²



2x HC crimping female contact 1,0mm
Crimp. range: max. 1,0mm²

F R 6 2



17x HC crimping female contact 1,0mm
Crimp. range: max. 1,0mm²



4x HC crimping female contact 2,0mm
Crimp. range: max. 2,5mm²



2x Slit crimping female contact 1,0mm
Crimp. range: max. 1,0mm²

F R 6 1



17x Slit crimping female contact 1,0mm
Crimp. range: max. 1,0mm²





PLUG

BUSHING

25 contacts combinations



Contacts for TWINTEC insulation insert



Contacts for signal insulation insert [16+3] contacts



4x HC crimping female contact 2,0mm
Crimp. range: max. 2,5mm²



2x HC Crimping female contact 1,0mm
Crimp. range: max. 1,0mm²



16x HC crimping female contact 1,0mm
Crimp. range: max. 1,0mm²



3x Slit crimping female contact 1,5mm
Crimp. range: max. 1,0mm²

F R 6 3



4x HC crimping female contact 2,0mm
Crimp. range: max. 2,5mm²



2x Slit crimping female contact 1,0mm
Crimp. range: max. 1,0mm²



16x Slit crimping female contact 1,0mm
Crimp. range: max. 1,0mm²



3x Slit crimping female contact 1,5mm
Crimp. range: max. 1,0mm²

F R 6 5





EXTENSION



RECEPTACLE STRAIGHT



RECEPTACLE ANGLED

18 contacts combinations



Contacts for
TWINTEC insulation insert



Contacts for
signal insulation insert
12 contacts



4x Crimp. male contact 2,0mm
Crimp. range: max. 2,5mm²



2x Crimp. male contact 1,0mm
Crimp. range: max. 1,0mm²

MR 5 3



12x Crimp. male contact 1,0mm
Crimp. range: max. 1,0mm²

23 contacts combinations



Contacts for
TWINTEC insulation insert



Contacts for
signal insulation insert
17 contacts



4x Crimp. male contact 2,0mm
Crimp. range: max. 2,5mm²



2x Crimp. male contact 1,0mm
Crimp. range: max. 1,0mm²

MR 5 8



17x Crimp. male contact 1,0mm
Crimp. range: max. 1,0mm²



Contact combinations
25 contacts



EXTENSION



RECEPTACLE STRAIGHT



RECEPTACLE ANGLED

25 contacts combinations



Contacts for
TWINTEC insulation insert



Contacts for
signal insulation insert
[16+3] contacts



4x Crimp. male contact 2,0mm
Crimp. range: max. 2,5mm²



2x Crimp. male contact 1,0mm
Crimp. range: max. 1,0mm²



16x Crimp. male contact 1,0mm
Crimp. range: max. 1,0mm²



3x Crimp. male contact 1,5mm
Crimp. range: max. 1,0mm²

MR 5 9





Suitable for housing design



PLUG

EXTENSION

Advanced LAMELLA clamping

„jagged“ clamping unit for improved revolving protection (incl. seal and strain relief), shielding element, clamping ring



Lamella type cable clamping

Suitable for cable diameter:

12,0 – 20,0 mm

Lamella type cable clamping
separate cable bushing

Suitable for cable diameter:

9,0 / 12,5 mm

6 7

6 8

Note: For all receptacles housing designs add „00“



Design variations

Customer specific options on request



PLUG

PICTURE AND CODING

ORDERING CODE

SPECIFICATIONS



Code 1

0 0 0 3

■ Metal construction



BUSHING

PICTURE AND CODING

ORDERING CODE

SPECIFICATIONS



Code 1

0 0 0 2

■ Axial sealing





Customer specific options on request



EXTENSION

PICTURE AND CODING

ORDERING CODE

SPECIFICATIONS



Code 1

0 0 0 2

- Metal construction
- Vibration protection



RECEPTACLE STRAIGHT

PICTURE AND CODING

ORDERING CODE

SPECIFICATIONS



Code 1

0 0 0 2

- Axial sealing
- Connecting thread M34 x 0,75 with fixing nut
- Vibration protection



RECEPTACLE STRAIGHT WITH FLANGE

PICTURE AND CODING

ORDERING CODE

SPECIFICATIONS



Code 1

0 0 0 7

- Axial sealing
- Integrated flange 39 x 35 mm
- Vibration protection



Customer specific options on request



RECEPTACLE ANGLED WITH FLANGE

PICTURE AND CODING

ORDERING CODE

SPECIFICATIONS



Code 1

0 0 0 2

- Axial sealing
- Integrated flange 30 x 60mm



RECEPTACLE ANGLED – CONNECTING THREAD M34 x 0,75

PICTURE AND CODING

ORDERING CODE

SPECIFICATIONS



Code 1

0 0 0 5

- Radial sealing
- Thread M34 x 0,75 with fixing nut
- Vibration protection
- Flexible mounting direction



RECEPTACLE ANGLED – CONNECTING THREAD M23 x 1

PICTURE AND CODING

ORDERING CODE

SPECIFICATIONS



Code 1

0 0 0 6

- Radial sealing
- Thread M23 x 1 with fixing nut
- Vibration protection
- Flexible mounting direction





Standard packaging for connectors or connector components: cardboard box (various sizes depending on units packed).

Customer specific packaging designs including mounting instructions, e. g. service packs, on request (see picture).

Standard packaging code: 000





TECHNICAL DATA FOR F SERIES COMBINED CONNECTORS

Operating temperature	-20°C to 130°C
Degree of protection	IP 66/67 (plugged condition)

ELECTRICAL DATA – POWER CONTACTS

Max. current (max. wire gauge)	max. 30 A
Max. voltage	630 V AC/DC
Test voltage (between contacts)	4000 V
Contact resistance	< 5 mΩ
Mating cycles	> 50

ELECTRICAL DATA – SIGNAL CONTACTS

Max. current (max. wire gauge)	max. 12 A
Max. voltage	250 V (AC/DC)
Test voltage (between contacts)	4000 V
Contact resistance	< 5 mΩ
Mating cycles	> 50

DATA ACCORDING TO VDE 0110/0627, PART 5.19.2.1

Pollution degree	3
Overvoltage category	III
Max. operating height	2000 m

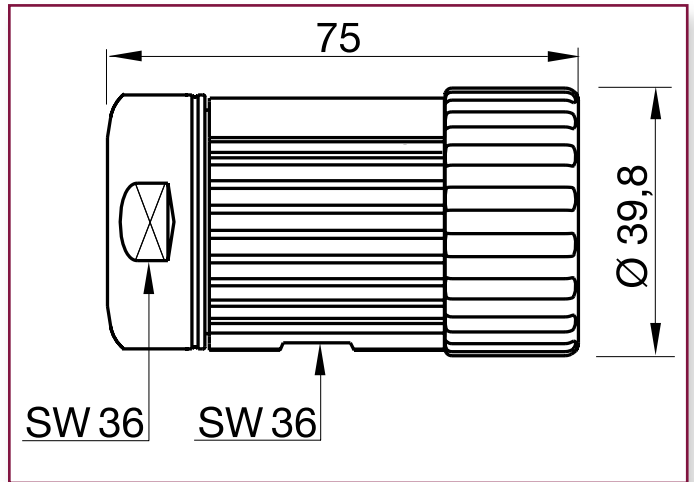
MATERIALS

Housing	Zinc die cast, nickel plated
Connecting nut (some designs)	Brass, nickel plated
Insulation inserts	PA 6.6/ PBT, UL 94/ V0
Contacts	Brass, silver / gold plated
Seals	FPM
Clamping ring (some designs)	Aluminum, nickel plated

PLUG

Design variation 0003

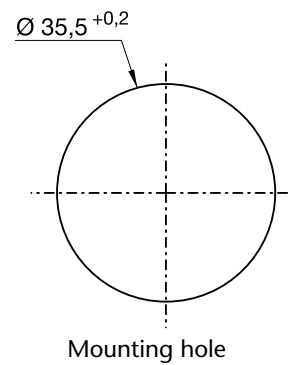
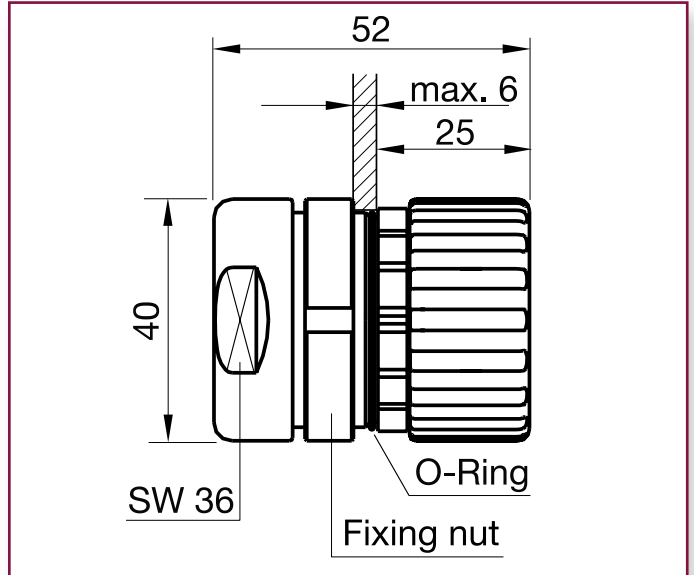
EMC shielding
Housing code: Code 1



BUSHING

Design variation 0002

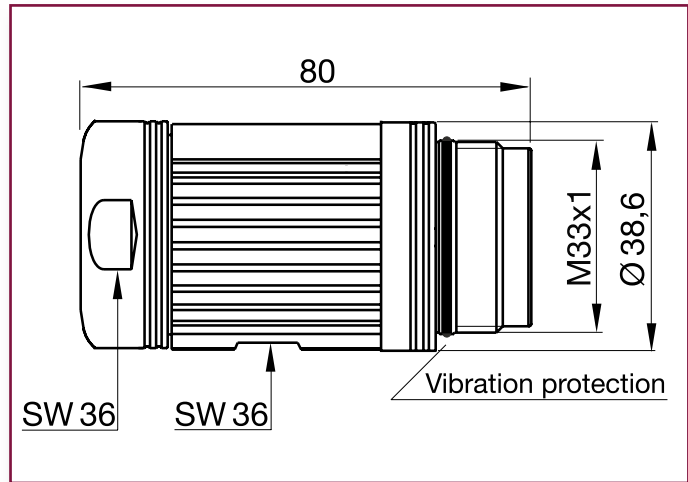
Axial sealing



EXTENSION

Design variation 0002

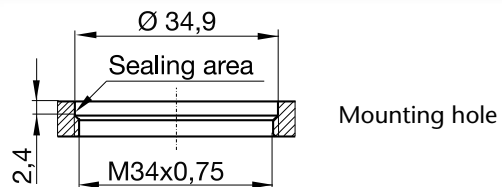
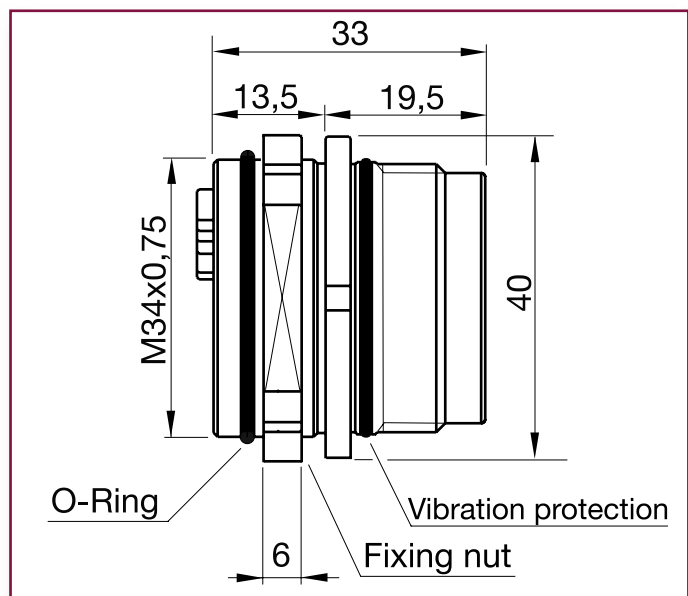
EMC shielding
Vibration protection
Housing code: Code 1



RECEPTACLE STRAIGHT

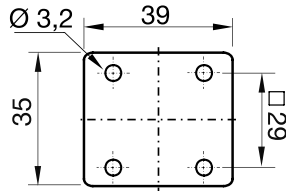
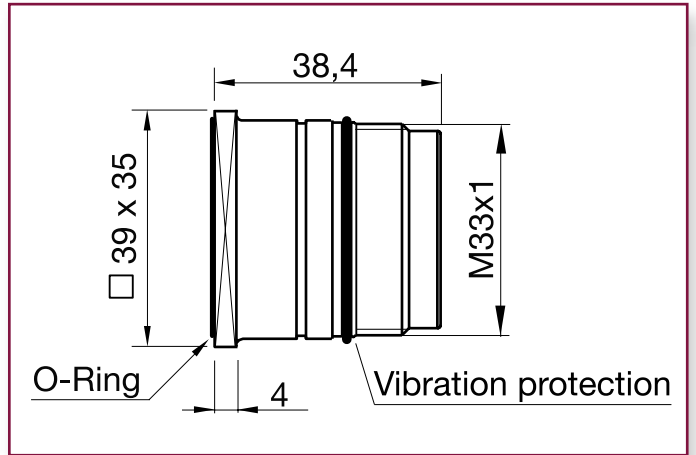
Design variation 0002

Axial sealing
Vibration protection
Housing code: Code 1

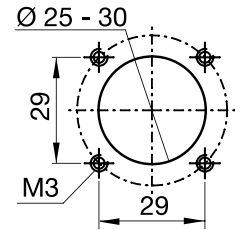


RECEPTACLE STRAIGHT,
INTEGRATED FLANGE
Design variation **0007**

Axial sealing
Vibration protection
Housing code: Code 1



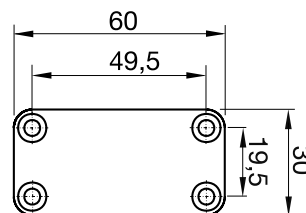
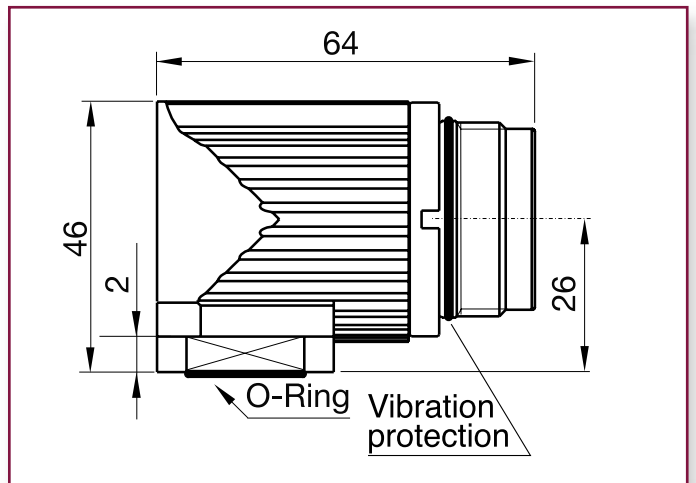
Flange dimensions



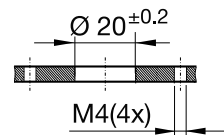
Mounting holes

RECEPTACLE ANGLED
Design variation **0002**

Axial sealing
Vibration protection
Housing code: Code 1



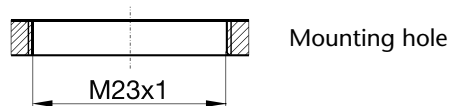
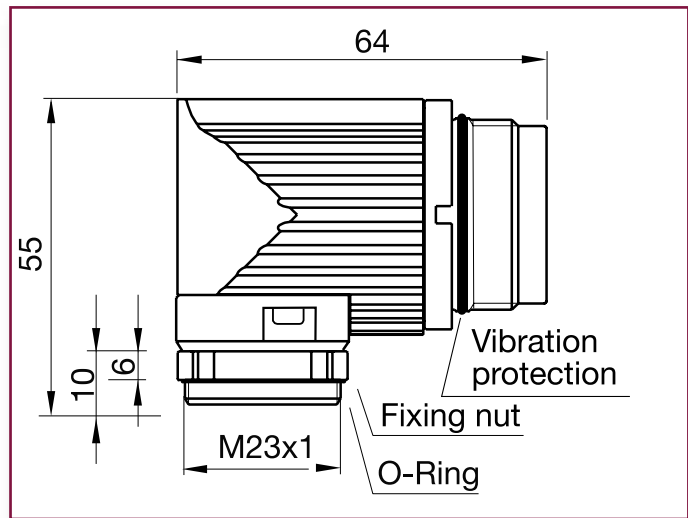
Flange dimensions



Mounting holes

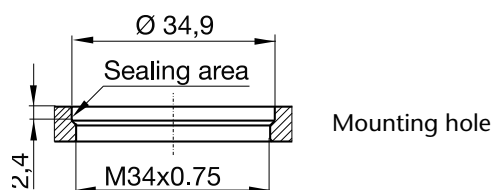
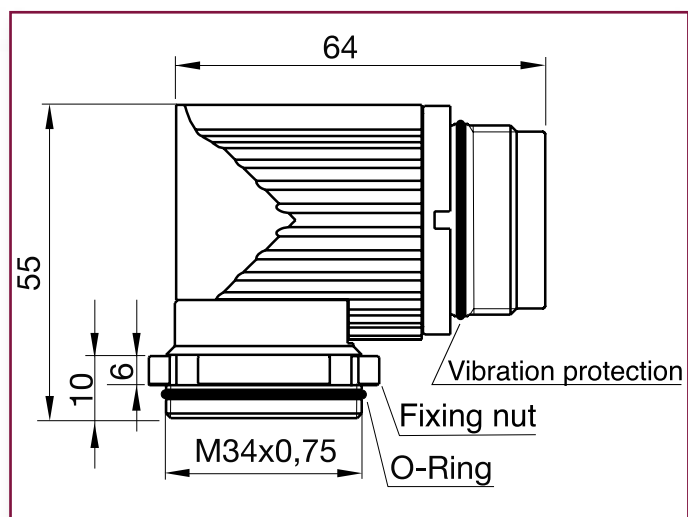
RECEPTACLE ANGLED,
CONNECTING THREAD M23 x 1
Design variation 0006

Radial sealing
Vibration protection
Housing code: Code 1



RECEPTACLE ANGLED,
CONNECTING THREAD M34 x 0,75
Design variation 0005

Radial sealing
Vibration protection
Housing code: Code 1





Metal flange

2 components, 4x M4 thread,
for optional clamping onto
metal housings, including sealing ring

Ordering No.
E0.059.02



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PDF file generated **26/03/03**