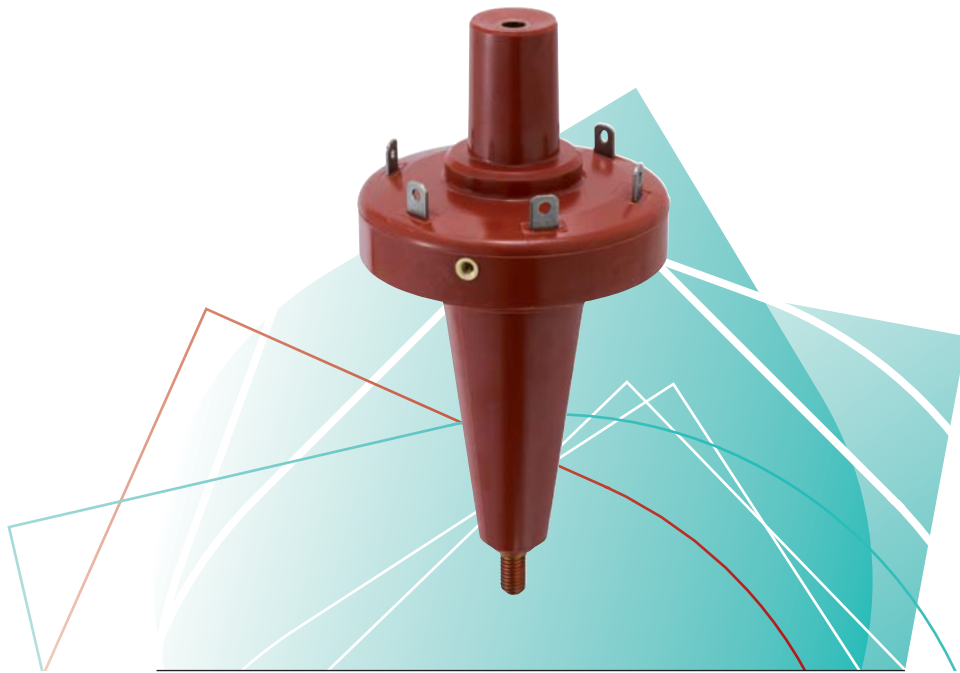


# Euromold

a Nexans company



Medium voltage  
equipment bushings

Catalogue 2009



### EUROMOLD

Euromold is the leading European specialised designer, manufacturer and distributor of prefabricated cable accessories for medium voltage energy distribution. Euromold provides a complete range of accessories for underground cables: pre-moulded EPDM or silicone rubber connectors, terminations and joints for cables and epoxy bushings for transformers and switch gear, as well as a large range of cold-shrinkable terminations and joints from 12 to 42 kV.

Euromold is also the manufacturer of electrical components for the high voltage accessories of the Nexans group.

### ISO 9001 Certificate

Since 1992, Euromold's commitment to quality is demonstrated by its ISO 9001 certification.

### International standards

All our products meet the International standards like CENELEC HD 629.1, CENELEC EN 50180, IEC 137, IEEE 386 & 404... or country specifications. Official certificates, CESI, KEMA, ATEX... prove the conformity of our products. Long duration tests of existing or new products are continuously performed in our test fields.

### Laboratory accreditation

Since June 2000, Euromold's independent ELAB laboratory obtained the BELTEST accreditation no.192-T-ISO 17025 conform with the European standards for laboratories ISO 17025 for electrical testing of medium voltage cable accessories according to the International standards IEC 61442 and HD 629.

While every care is taken to ensure that the information contained in this publication is correct, no legal responsibility can be accepted for any inaccuracy. Nexans Network Solutions n.v. - Div. Euromold reserves the right to alter or modify the characteristics of its products described in this catalogue as standards and technology evolve.

## EQUIPMENT BUSHINGS

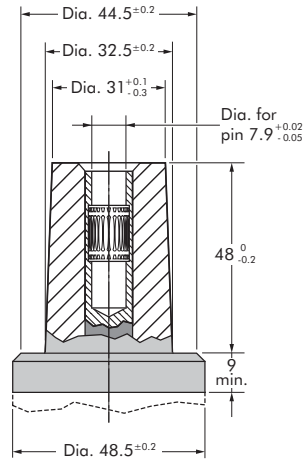
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- 400AR-5 - interface C equipment bushing
- 400AR-6 - interface C equipment bushing
- 400A-24B - interface C in-air bushing
- 400SFR-B - interface C equipment bushing

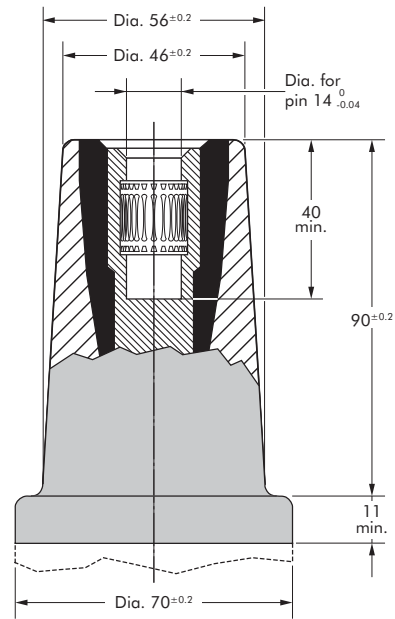
## Interface A

Dimensions according to European CENELEC EN 50180 and 50181 (in mm).



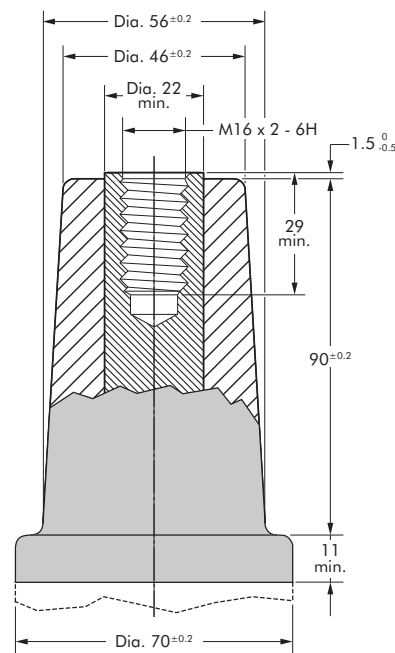
## Interface B

Dimensions according to European CENELEC EN 50180 and 50181 (in mm).



## Interface C

Dimensions according to European CENELEC EN 50180 and 50181 (in mm).



## 180AR-1 /180AR-2 /180AR-3

### INTERFACE A EQUIPMENT BUSHINGS

Up to 24 kV - 250 A

#### Application

For use in equipment insulated with oil fluid, typically for transformers, switch gear, capacitors...

#### Specifications and standards

The plug-in type equipment bushings 180AR... meet the requirements of CENELEC EN 50180 and IEC 137.

#### Technical characteristics

Each bushing is tested for AC withstand and partial discharge prior to leaving the factory.

6/10 (12) kV  
6.35/11 (12) kV  
8.7/15 (17.5) kV  
12/20 (24) kV  
12.7/22 (24) kV

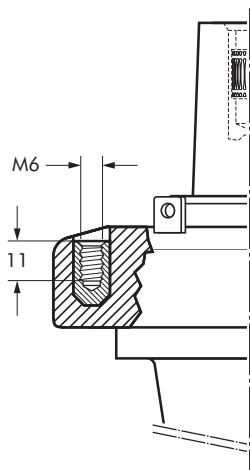
#### Design

- The equipment bushings are moulded epoxy insulated parts in accordance with CENELEC EN 50180. The 180AR-2 bushing has a length B outside this standard.
- The standard bushings, (K)180AR-1 /-2 /-3, are equipped with 6 tabs for the bail restraint.
- The (K)180AR-1-G and (K)180AR-3-G are equipped with 4 tabs and 2 threaded inserts M6 (-G version).

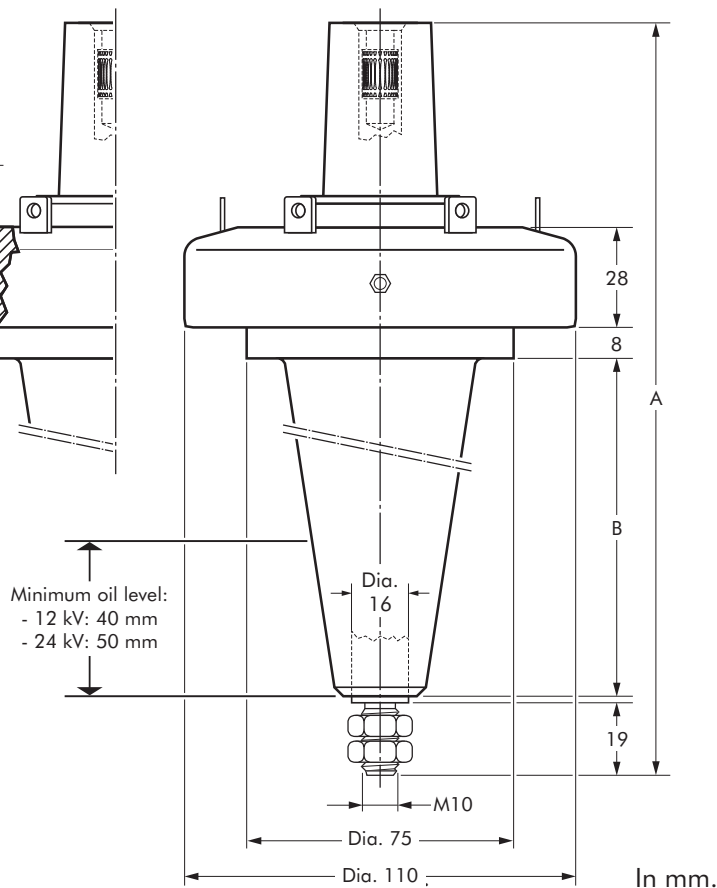
#### Ordering instructions

To order the equipment bushing, specify the type. The bushings are supplied with an earth jumper (/J) or an earth plate (/GS). This earth connection must be specified when ordering. E.g. K180AR-1/J.

Type 180AR-1-G /-3-G



Type 180AR-1 /-2 /-3



Equipment bushing type	Voltage Ur (kV)	Current Ir (A)	Dimensions (mm)	
			A	B
180AR-1	12	250	222	106
K180AR-1	24	250	222	106
180AR-2	12	250	284	168
K180AR-2	24	250	284	168
180AR-3	12	250	171	55
K180AR-3	24	250	171	55

# FIXINGS FOR EQUIPMENT BUSHINGS

- | 180AR-1/GS
- | 180AR-1-G/GS
- | 180AR-2/GS
- | 180AR-3/GS and
- | 180AR-3-G/GS Bushings

## Ordering instructions

To order the bushing clamping kit, according to NFC 52-053 standards, simply specify KBCNF1-200.

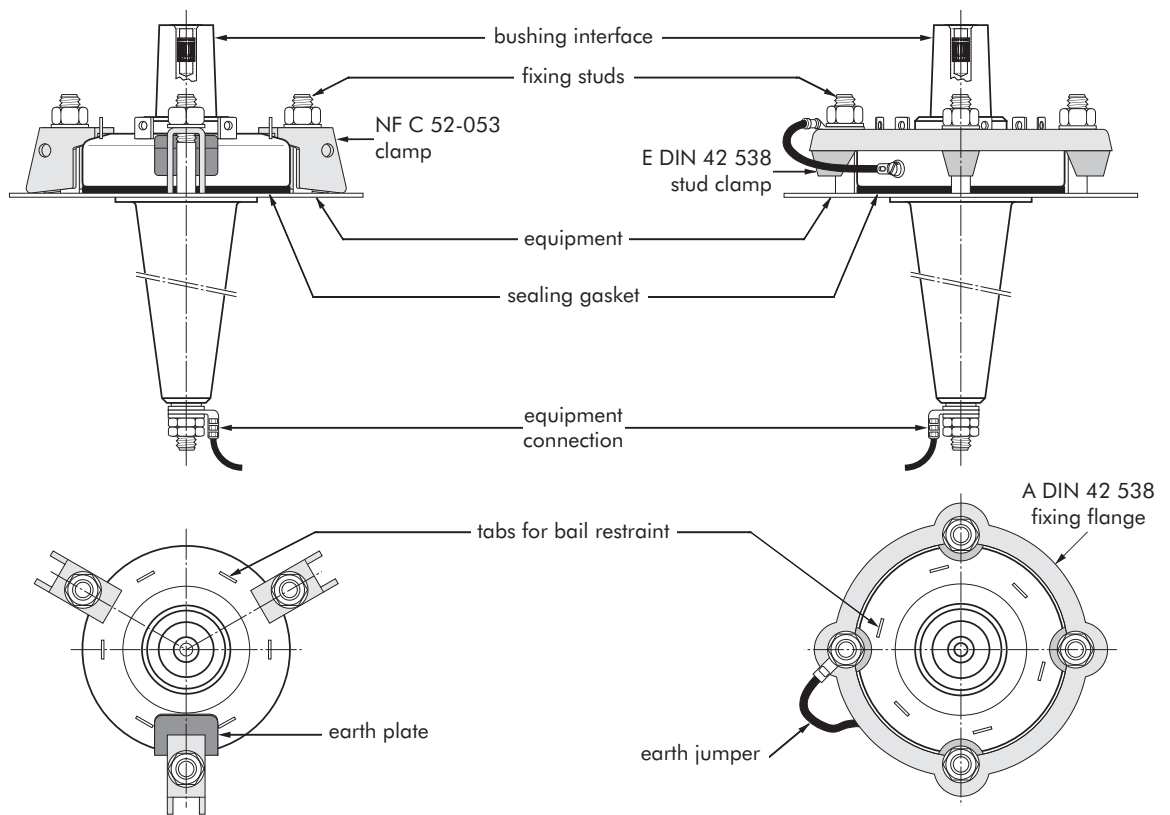
Contents: - 3 x claw clamp NF  
- 1 x sealing gasket.

- | 180AR-1/J
- | 180AR-1-G/J
- | 180AR-2/J
- | 180AR-3/J and
- | 180AR-3-G/J Bushings

## Ordering instructions

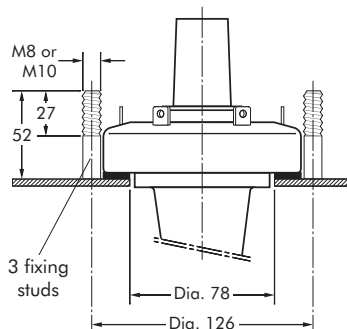
To order the bushing clamping kit, according to DIN 42 538 standards, simply specify: KBCD-200.

Contents: - 1 x fixing flange A  
- 4 x stud clamp E  
- 1 x sealing gasket.



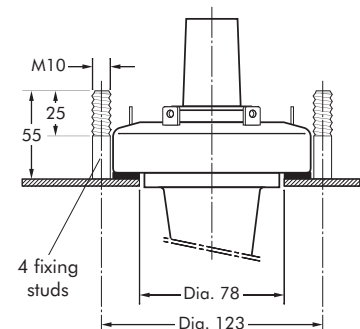
## Fixing dimensions standards

NF C 52-053  
French standards.



## Fixing dimensions standards

DIN 42 538  
German standards.



In mm.

## 180A-24P-O INTERFACE A IN-AIR BUSHING

Up to 24 kV - 250 A

### Application

For use in equipment insulated with air, typically for dry type transformers, motors, switch gear, capacitors...

### Technical characteristics

Each bushing is tested for AC withstand and partial discharge prior to leaving the factory.

6/10 (12) kV  
6.35/11 (12) kV  
8.7/15 (17.5) kV  
12/20 (24) kV  
12.7/22 (24) kV

### Specifications and standards

The plug-in type equipment bushings 180A-24P-O are moulded epoxy insulated parts and meet the requirements of CENELEC EN 50181 and IEC 137.

### Ordering instructions

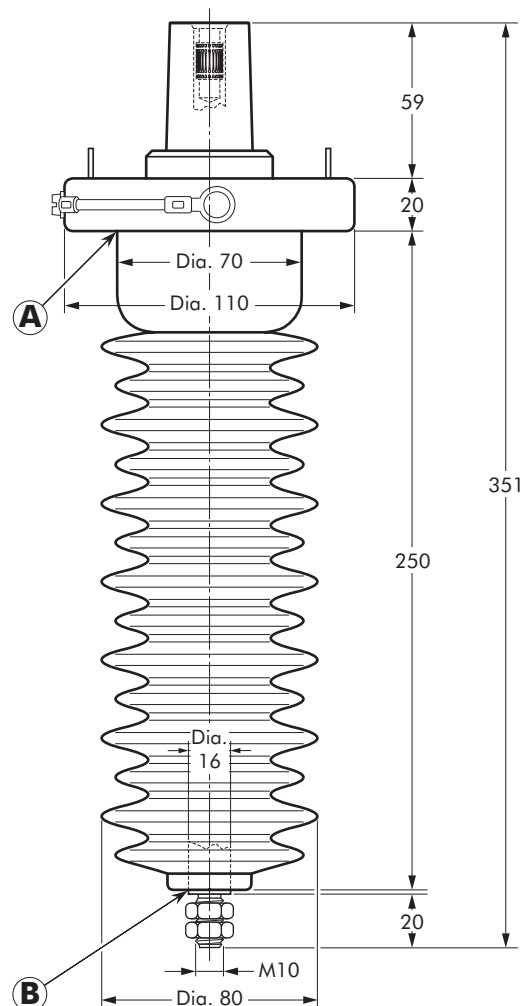
To order the equipment bushing, specify the type.

The bushings are supplied with an earth jumper.

To include the ring clamp, add:

- /B, if per British standards
- /D, if per German standards
- /F, if per French standards.

E.g. 180A-24P-O/F.

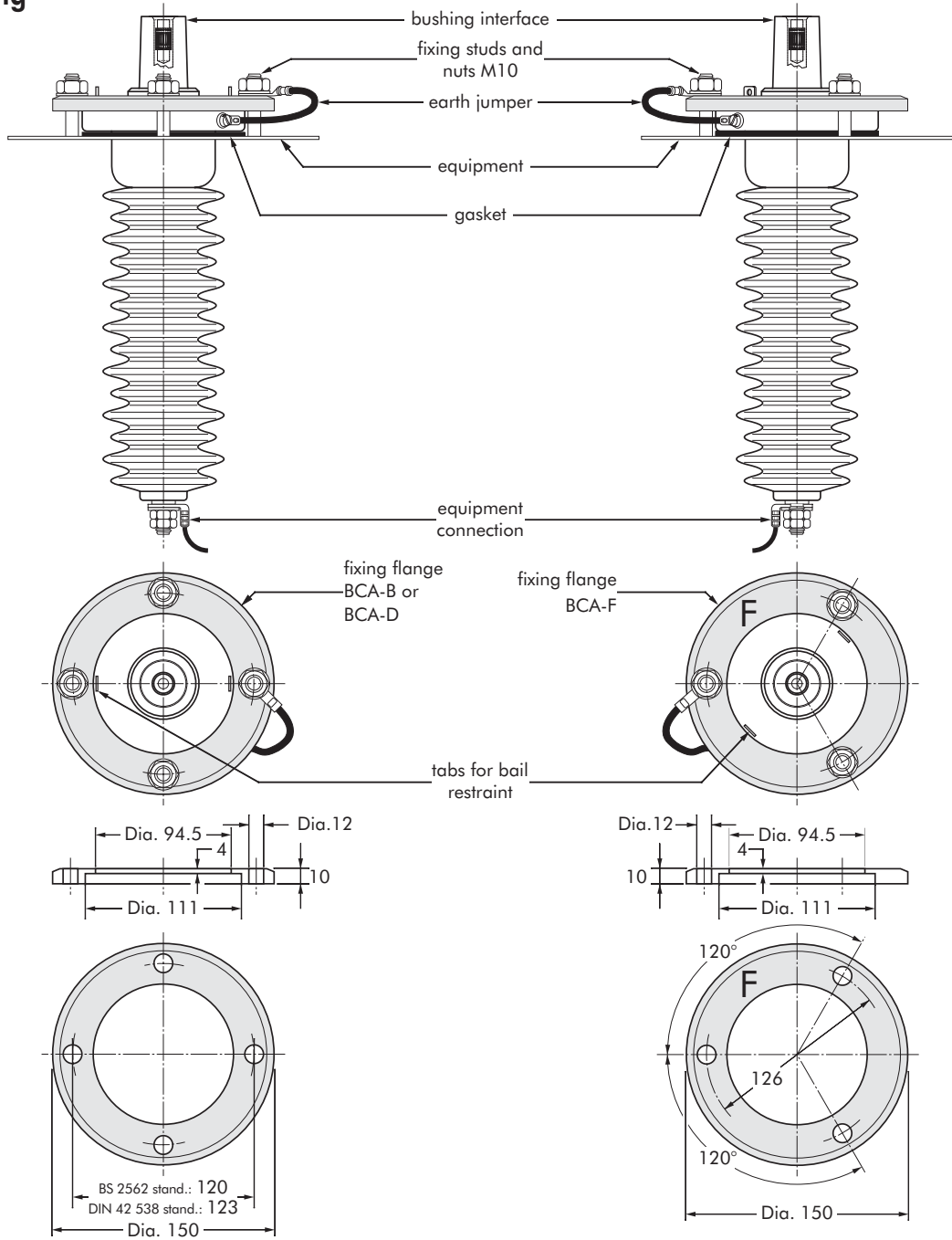


In mm.

Equipment bushing type	Voltage $U_r$ (kV)	Current $I_r$ (A)	Creepage distance A-B (mm)
180A-24P-O	12	250	630
180A-24P-O	24	250	630

# FIXINGS FOR EQUIPMENT BUSHINGS

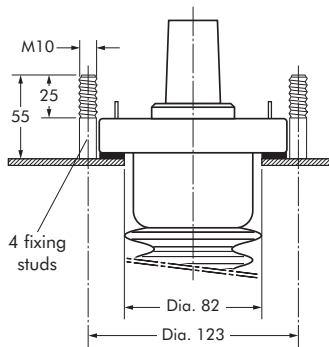
## 180A-24P-O In-air bushing



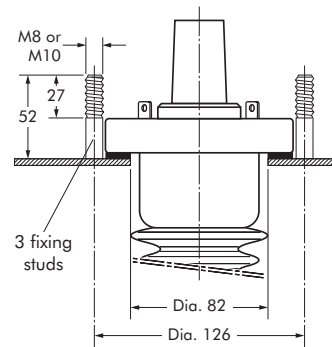
Type BCA-B : BS 2562 British standards  
Type BCA-D : DIN 42 538 German standards

Type BCA-F : NFC 52-053 French standards

## Fixing dimensions standards DIN 42 538 German standards.



## Fixing dimensions standards NF C 52-053 French standards.



In mm.



## 250SFR-P INTERFACE A EQUIPMENT BUSHING

Up to 24 kV - 250 A

### Application

For use in equipment insulated with SF<sub>6</sub> gas.

### Technical characteristics

Each bushing is tested for AC withstand and partial discharge prior to leaving the factory.

6/10 (12) kV  
6.35/11 (12) kV  
8.7/15 (17.5) kV  
12/20 (24) kV  
12.7/22 (24) kV

### Design

The equipment bushing is a moulded epoxy insulated part with a connector interface in accordance with CENELEC EN 50180.

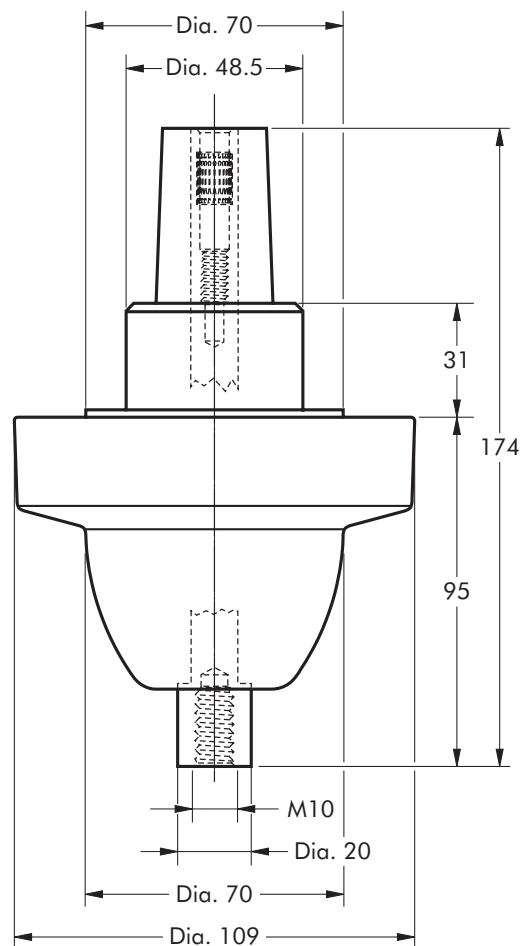
The 250SFR-P bushing has a shank outside this standard, adapted to use in SF<sub>6</sub> gas.

### Specifications and standards

The plug-in type equipment bushings 250SFR-P meet the requirements of CENELEC EN 50180 and IEC 137.

### Ordering instructions

To order the equipment bushing, simply specify the type.

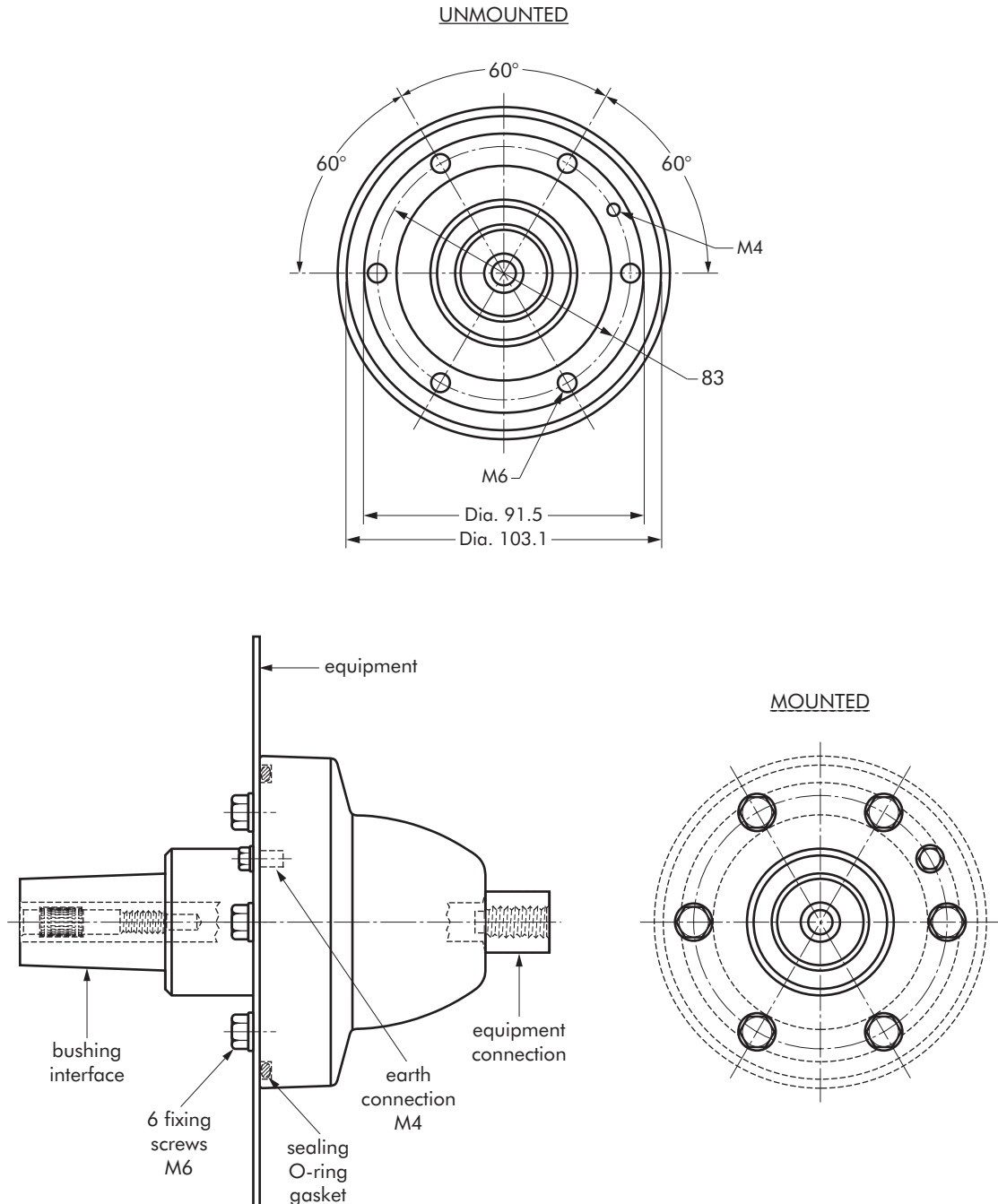


In mm.

Equipment bushing type	Voltage U <sub>r</sub> (kV)	Current I <sub>r</sub> (A)
250SFR-P	12	250
K250SFR-P	24	250

# FIXINGS FOR EQUIPMENT BUSHINGS

## 250SFR-P Bushing for gas insulated switch gear



In mm.

## 400T1 /400AR-1 /400AR-2 INTERFACE B EQUIPMENT BUSHINGS

### Application

For use in equipment insulated with oil fluid, typically for transformers, switch gear, capacitors...

### Technical characteristics

Each bushing is tested for AC withstand and partial discharge prior to leaving the factory.

Up to 36 kV - 400 A

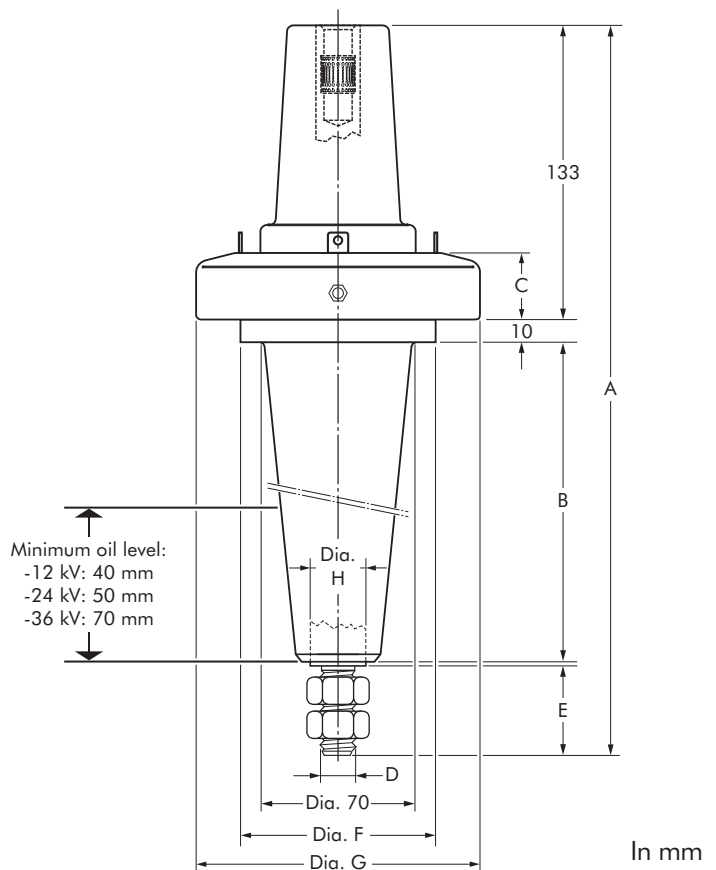
6/10 (12) kV  
6.35/11 (12) kV  
8.7/15 (17.5) kV  
12/20 (24) kV  
12.7/22 (24) kV  
18/30 (36) kV

### Specifications and standards

The plug-in type equipment bushings are moulded epoxy insulated parts and meet the requirements of IEC 137. The (K)(M)400T1 also meets CENELEC EN 50180 .

### Ordering instructions

To order the equipment bushing, specify the type. The bushings are supplied with an earth jumper (/J) or an earth plate (/GS). This earth connection must be specified when ordering. E.g. K400AR-1/J.



Equipment bushing type	Voltage Ur (kV)	Current Ir (A)	Dimensions (mm)							
			A	B	C	D	E	Dia. F	Dia. G	Dia. H
400T1	12	400	310	144	30	M12	22	88	128	16
K400T1	24	400	310	144	30	M12	22	88	128	16
M400T1	36	400	310	144	30	M12	22	88	128	16
400AR-1	12	400	380	213	30	M12	22	74	128	16
K400AR-1	24	400	380	213	30	M12	22	74	128	16
M400AR-1	36	400	380	213	30	M12	22	74	128	16
400AR-2	12	400	329	138	36	M16	40	100	150	30
K400AR-2	24	400	329	138	36	M16	40	100	150	30
M400AR-2	36	400	329	138	36	M16	40	100	150	30

# FIXINGS FOR EQUIPMENT BUSHINGS

## 400AR-2/GS Bushing

### Ordering instructions

To order the bushing clamping kit, according to NFC 52-053 standards, simply specify KBCNF-400 (for bushing type 400AR-2).

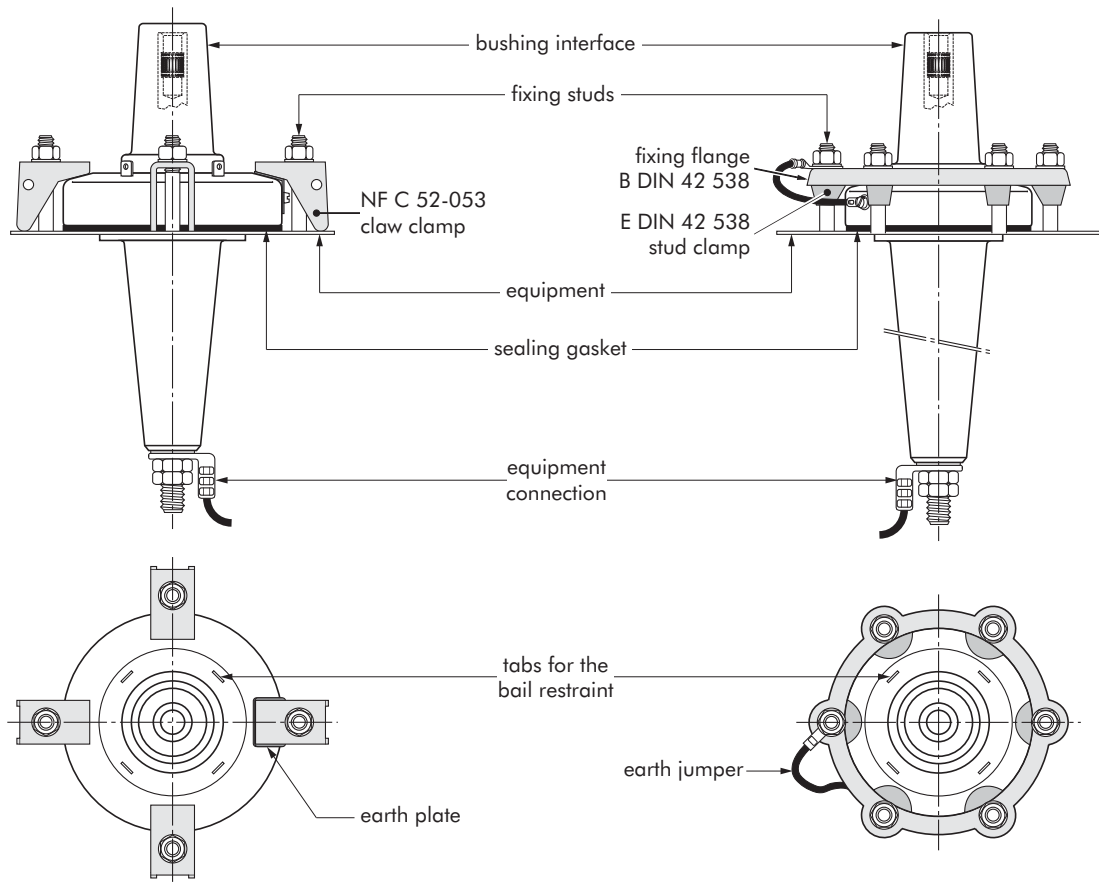
Contents: - 4 x claw clamp NF  
- 1 x sealing gasket.

## 400AR-1/J and 400T1/J Bushings

### Ordering instructions

To order the bushing clamping kit, simply specify: KBCD-400B.

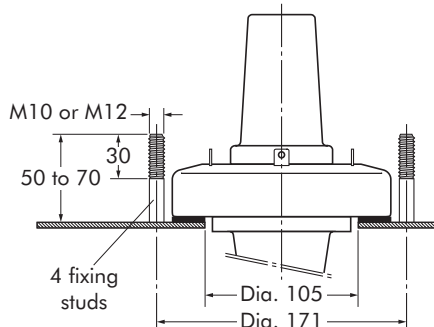
Contents: - 1 x fixing flange B  
- 6 x stud clamp E  
- 1 x sealing gasket.



### Fixing dimensions standards

NF C 52-053

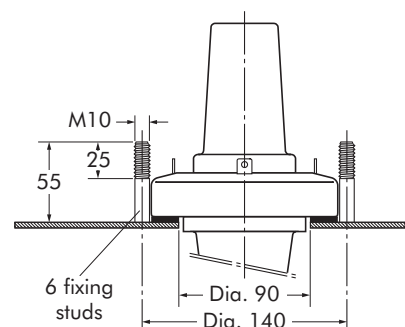
French standards.



### Fixing dimensions standards

DIN 42 538

German standards.



## 400SFR-P INTERFACE B EQUIPMENT BUSHING

Up to 24 kV - 400 A

### Application

For use in equipment insulated with SF<sub>6</sub> gas.

### Technical characteristics

Each bushing is tested for AC withstand and partial discharge prior to leaving the factory.

6/10 (12) kV  
6.35/11 (12) kV  
8.7/15 (17.5) kV  
12/20 (24) kV  
12.7/22 (24) kV

### Design

The equipment bushing is a moulded epoxy insulated part with a connector interface in accordance with CENELEC EN 50180.

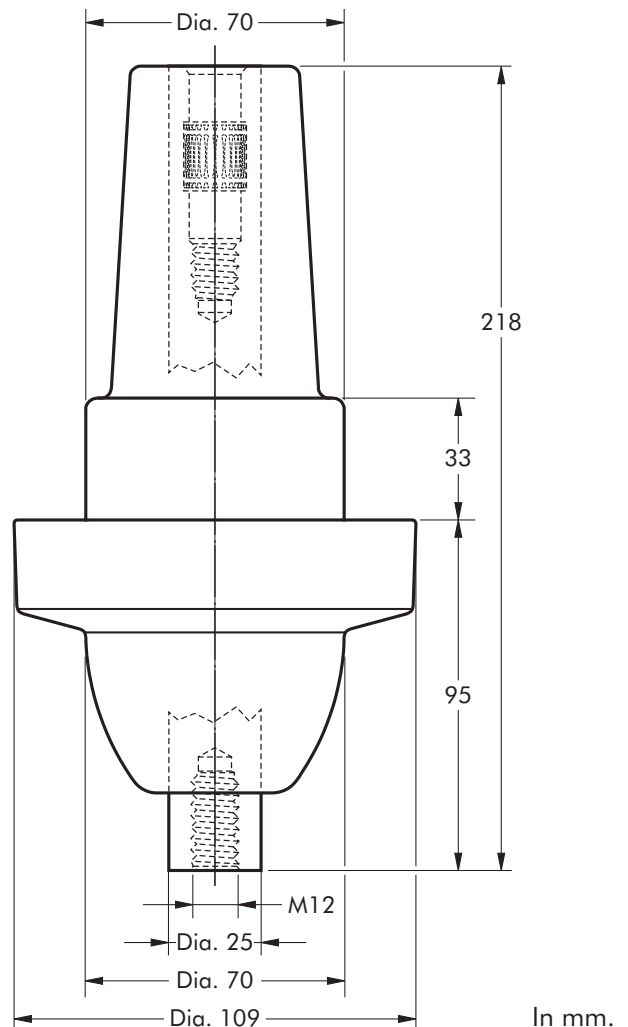
The 400SFR-P bushing has a shank outside this standard, adapted for use in SF<sub>6</sub> gas.

### Specifications and standards

The plug-in type equipment bushing 400SFR-P meets the requirements of CENELEC EN 50180 and IEC 137.

### Ordering instructions

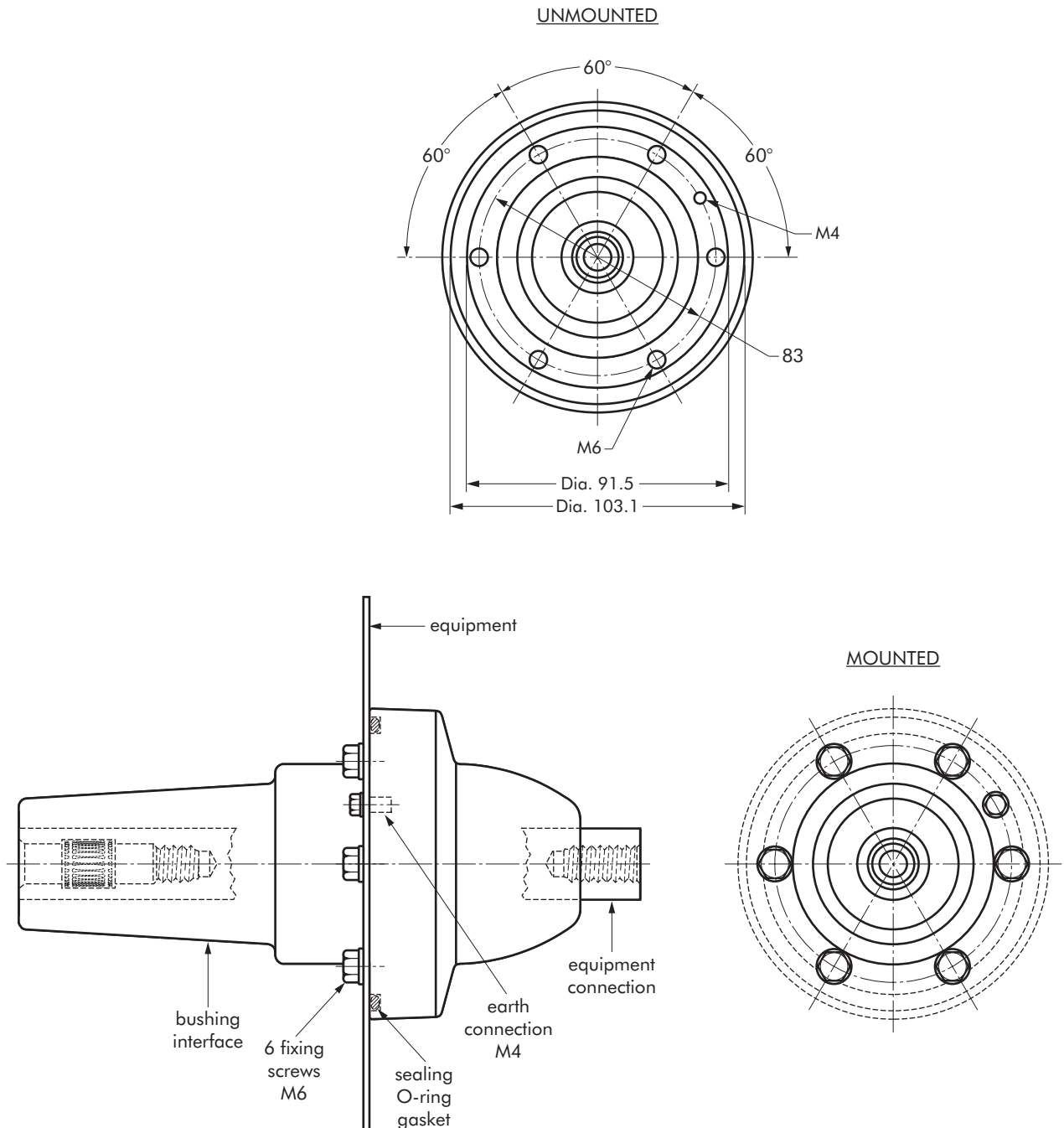
To order the equipment bushing, simply specify the type.



Equipment bushing type	Voltage Ur (kV)	Current Ir (A)
400SFR-P	12	400
K400SFR-P	24	400

# FIXINGS FOR EQUIPMENT BUSHINGS

## I 400SFR-P Bushing for gas insulated switch gear



In mm.

## 400AR-3 INTERFACE C EQUIPMENT BUSHING

Up to 36 kV - 630 A

### Application

For use in equipment insulated with oil fluid, typically for transformers, switch gear, capacitors...

### Technical characteristics

Each bushing is tested for AC withstand and partial discharge prior to leaving the factory.

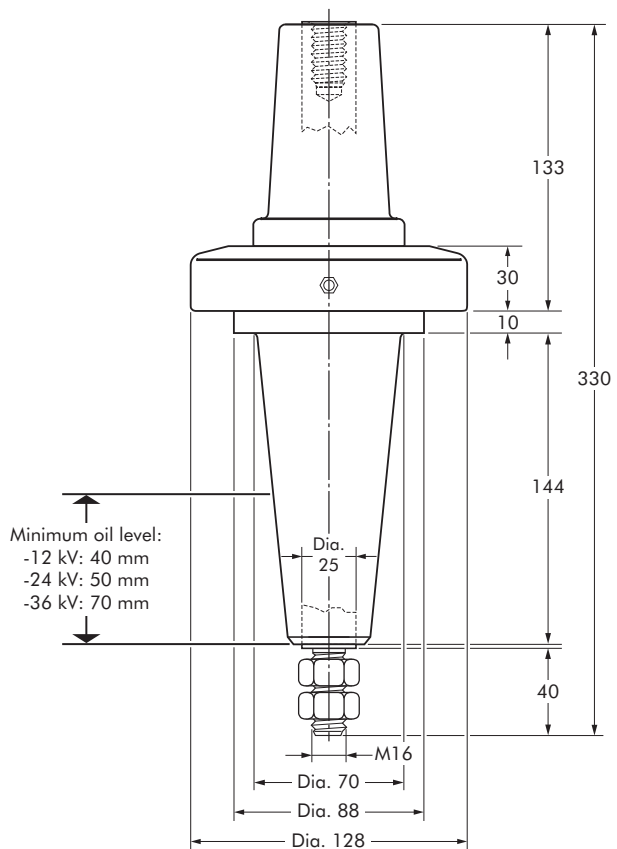
6/10 (12) kV  
6.35/11 (12) kV  
8.7/15 (17.5) kV  
12/20 (24) kV  
12.7/22 (24) kV  
18/30 (36) kV

### Specifications and standards

The bolted type equipment bushings 400AR-3 are moulded epoxy insulated parts and meet the requirements of CENELEC EN 50180 and IEC 137.

### Ordering instructions

To order the equipment bushing, specify the type. The bushings can be supplied with an earth jumper (/J). E.g. M400AR-3/J. For use in potentially explosive atmospheres (for 12 kV max), order: 400AR-3/ATEX.



In mm.

Equipment bushing type	Voltage $U_r$ (kV)	Current $I_r$ (A)
400AR-3	12	630
K400AR-3	24	630
M400AR-3	36	630

# FIXINGS FOR EQUIPMENT BUSHINGS

## 400AR-3/J Bushing

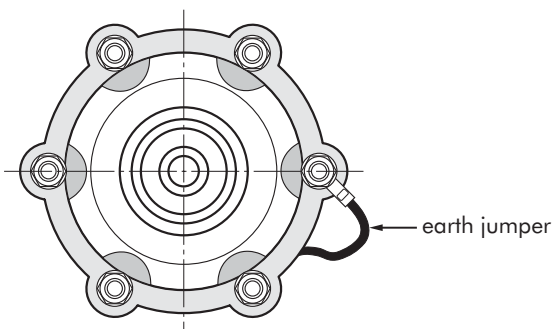
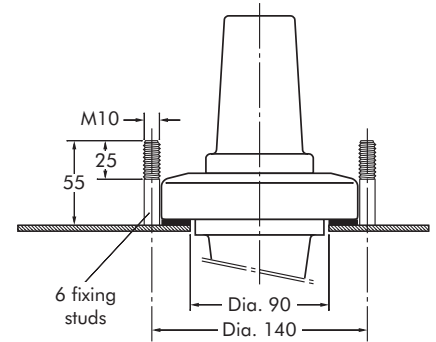
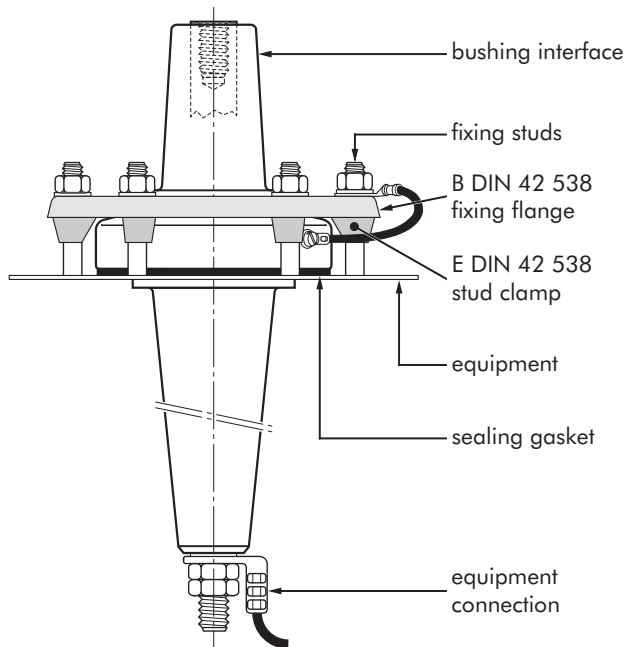
### Ordering instructions

To order the bushing clamping kit, according to DIN 42 538 standards, simply specify KBCD-400B.

Contents: - 1 x fixing flange B  
- 6 x stud clamp E  
- 1 x sealing gasket.

### Fixing dimensions standards

DIN 42 538  
German standards.



In mm.



## 400AR-4 INTERFACE C EQUIPMENT BUSHING

Up to 36 kV - 1250 A

### Application

For use in equipment insulated with oil fluid, typically for transformers, switch gear, capacitors...

### Technical characteristics

Each bushing is tested for AC withstand and partial discharge prior to leaving the factory.

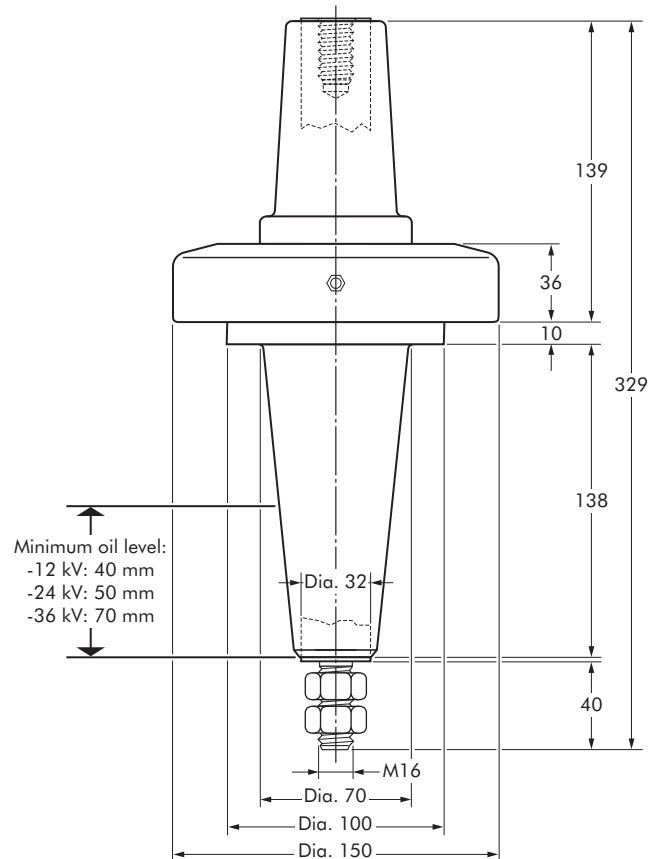
6/10 (12) kV  
6.35/11 (12) kV  
8.7/15 (17.5) kV  
12/20 (24) kV  
12.7/22 (24) kV  
18/30 (36) kV

### Specifications and standards

The bolted type equipment bushings 400AR-4 are moulded epoxy insulated parts and meet the requirements of CENELEC EN 50180 and IEC 137.

### Ordering instructions

To order the equipment bushing, specify the type. The bushings can be supplied with an earth jumper (/J) or an earth plate (/GS). This earth connection must be specified when ordering.  
E.g. M400AR-4/GS.



In mm.

Equipment bushing type	Voltage $U_r$ (kV)	Current $I_r$ (A)
400AR-4	12	1250
K400AR-4	24	1250
M400AR-4	36	1250

# FIXINGS FOR EQUIPMENT BUSHINGS

## 400AR-4/GS Bushing

### Ordering instructions

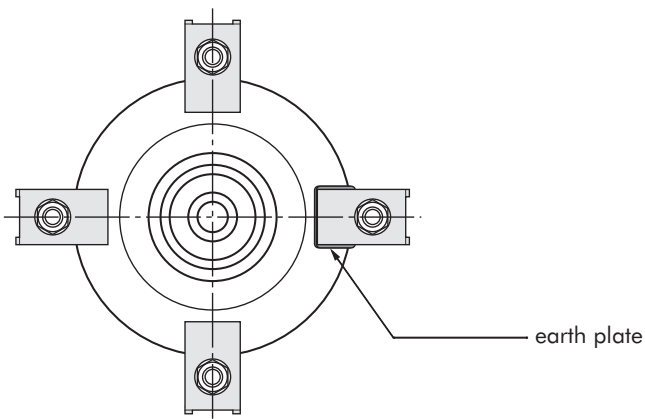
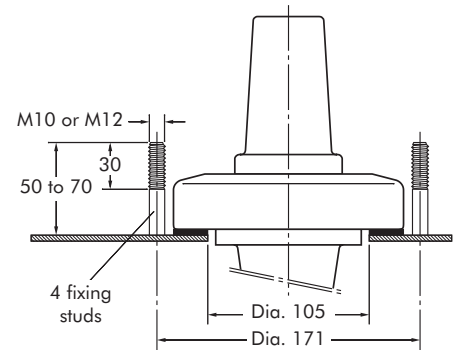
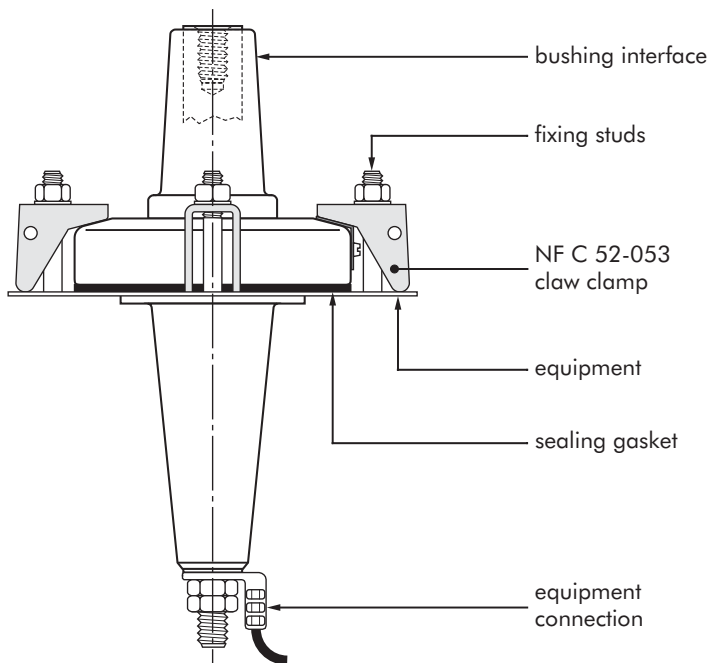
To order the bushing clamping kit, according to NFC 52-053 standards, simply specify KBCNF-400.

Contents: - 4 x claw clamp NF  
- 1 x sealing gasket.

### Fixing dimensions standards

NF C 52-053

French standards.



In mm.

## 400AR-5 INTERFACE C EQUIPMENT BUSHING

Up to 36 kV - 1250 A

### Application

For use in equipment insulated with oil fluid, typically for transformers, switch gear, capacitors...

### Technical characteristics

Each bushing is tested for AC withstand and partial discharge prior to leaving the factory.

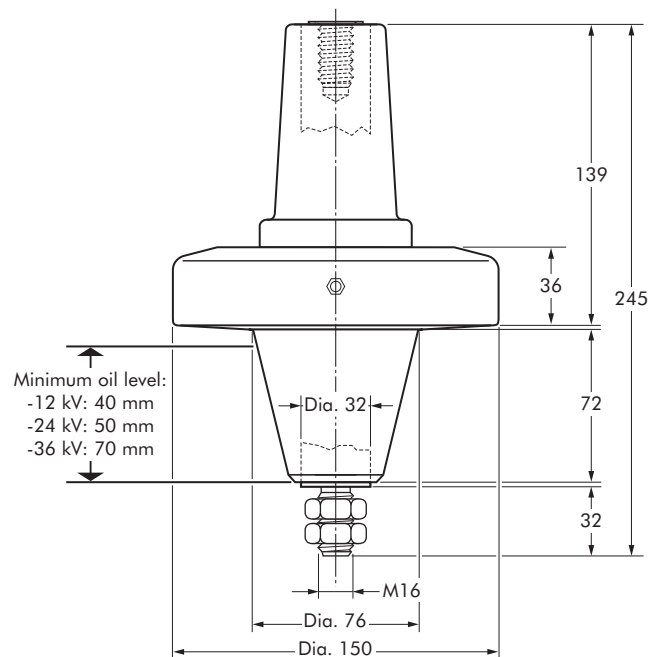
6/10 (12) kV  
6.35/11 (12) kV  
8.7/15 (17.5) kV  
12/20 (24) kV  
12.7/22 (24) kV  
18/30 (36) kV

### Specifications and standards

The bolted type equipment bushings 400AR-5 are moulded epoxy insulated parts and meet the requirements of CENELEC EN 50180 and IEC 137.

### Ordering instructions

To order the equipment bushing, specify the type. The bushings can be supplied with an earth jumper (/J) or an earth plate (/GS). This earth connection must be specified when ordering.  
E.g. M400AR-5/GS.



In mm.

Equipment bushing type	Voltage $U_r$ (kV)	Current $I_r$ (A)
400AR-5	12	1250
K400AR-5	24	1250
M400AR-5	36	1250

# FIXINGS FOR EQUIPMENT BUSHINGS

## 400AR-5/GS Bushing

### Ordering instructions

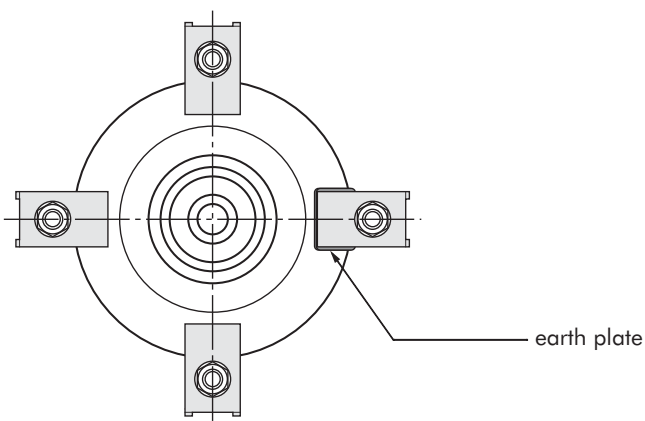
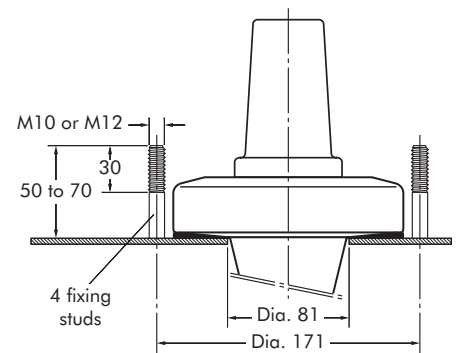
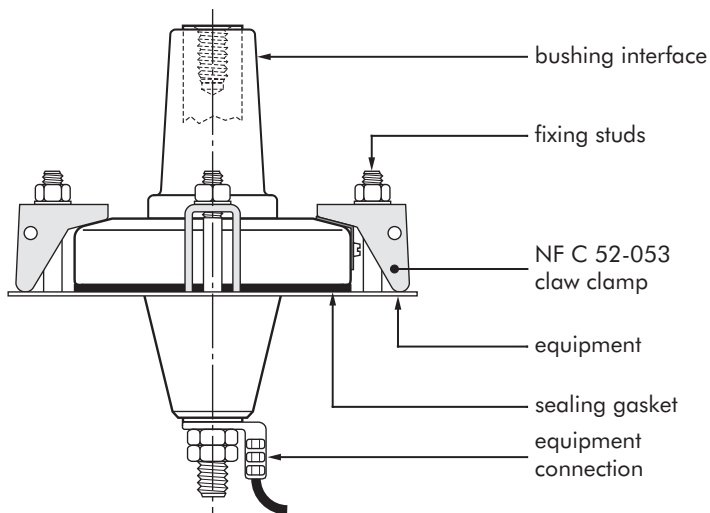
To order the bushing clamping kit, according to NFC 52-053 standards, simply specify KBCNF-400.

Contents: - 4 x claw clamp NF  
- 1 x sealing gasket.

### Fixing dimensions standards

NF C 52-053

French standards.



In mm.

## 400AR-6 INTERFACE C EQUIPMENT BUSHING

Up to 36 kV - 630 A

### Application

For use in equipment insulated with oil fluid, typically for transformers, switch gear, capacitors...

### Technical characteristics

Each bushing is tested for AC withstand and partial discharge prior to leaving the factory.

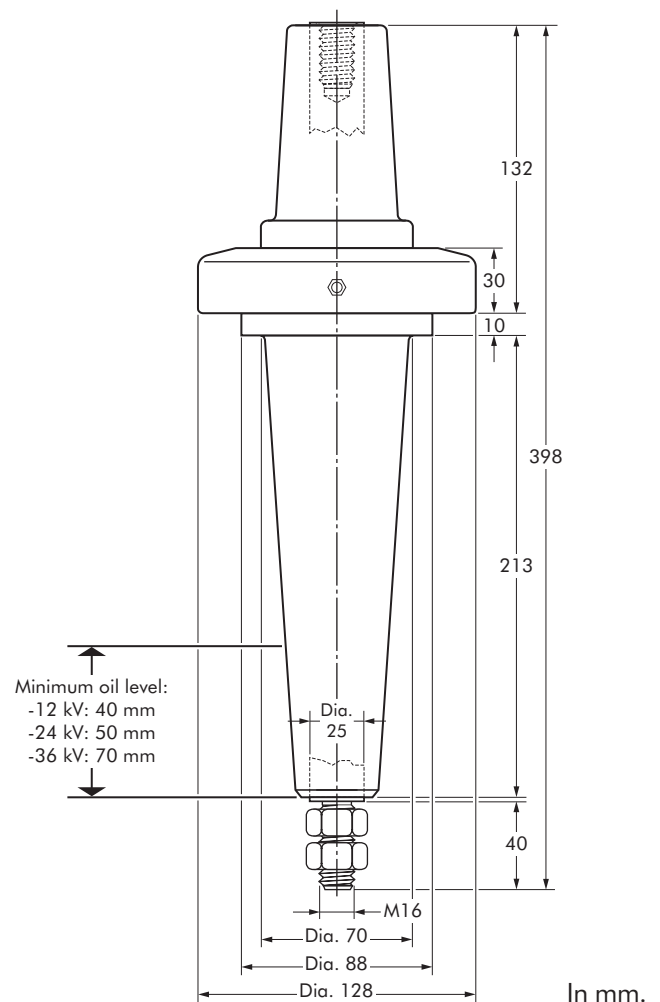
6/10 (12) kV  
6.35/11 (12) kV  
8.7/15 (17.5) kV  
12/20 (24) kV  
12.7/22 (24) kV  
18/30 (36) kV

### Specifications and standards

The bolted type equipment bushings 400AR-6 are moulded epoxy insulated parts and meet the requirements of CENELEC EN 50180 and IEC 137.

### Ordering instructions

To order the equipment bushing, specify the type. The bushings can be supplied with an earth jumper (/J). This earth connection must be specified when ordering. E.g. M400AR-6/J.



Equipment bushing type	Voltage $U_r$ (kV)	Current $I_r$ (A)
400AR-6	12	630
K400AR-6	24	630
M400AR-6	36	630

# FIXINGS FOR EQUIPMENT BUSHINGS

## 400AR-6/J Bushing

### Ordering instructions

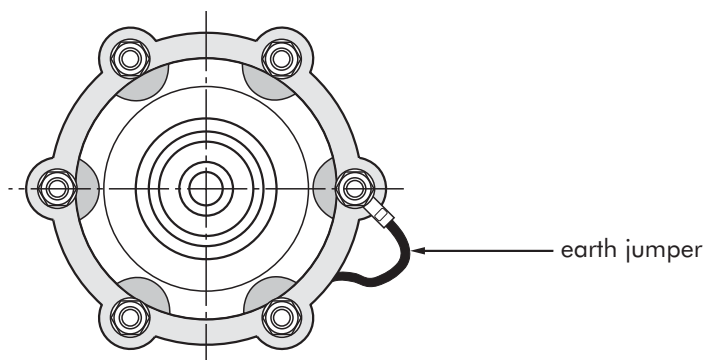
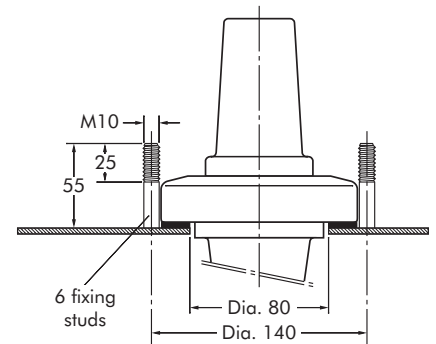
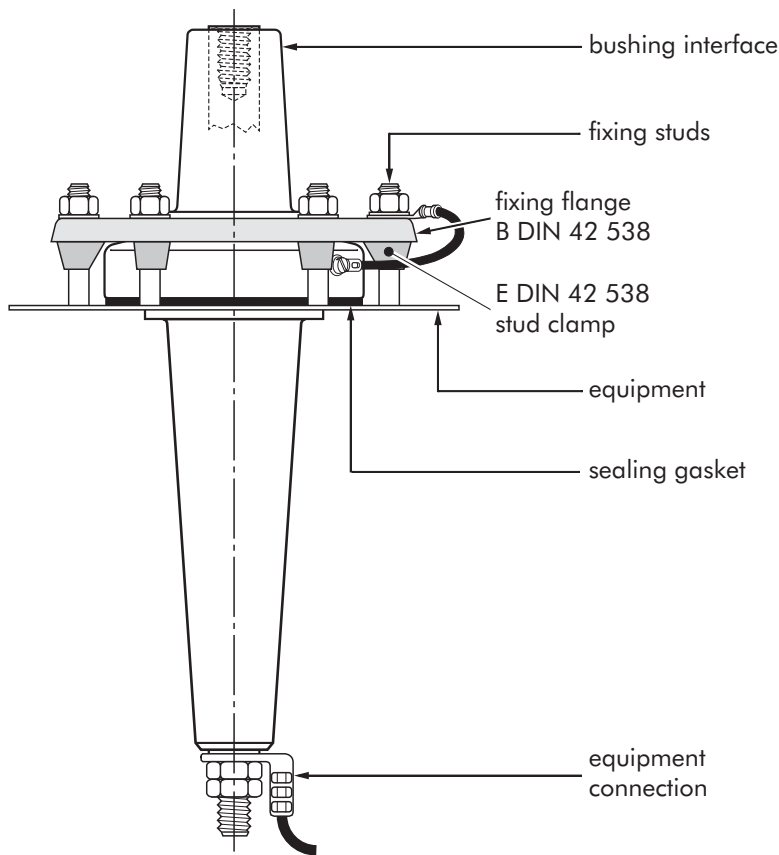
To order the bushing clamping kit, according to DIN 42 538 standards, simply specify KBCD-400B.

Contents: - 1 x fixing flange B  
- 6 x stud clamp E  
- 1 x sealing gasket.

### Fixing dimensions standards

DIN 42 538

German standards.



In mm.

## 400A-24B INTERFACE C IN-AIR BUSHING

Up to 24 kV - 630 A

### Application

For use in equipment insulated with air, typically for dry type transformers, motors, switch gear, capacitors...

### Technical characteristics

Each bushing is tested for AC withstand and partial discharge prior to leaving the factory.

6/10 (12) kV  
6.35/11 (12) kV  
8.7/15 (17.5) kV  
12/20 (24) kV  
12.7/22 (24) kV

### Specifications and standards

The bolted type equipment bushings 400A-24B are moulded epoxy insulated parts and meet the requirements of CENELEC EN 50180 and IEC 137.

### Ordering instructions

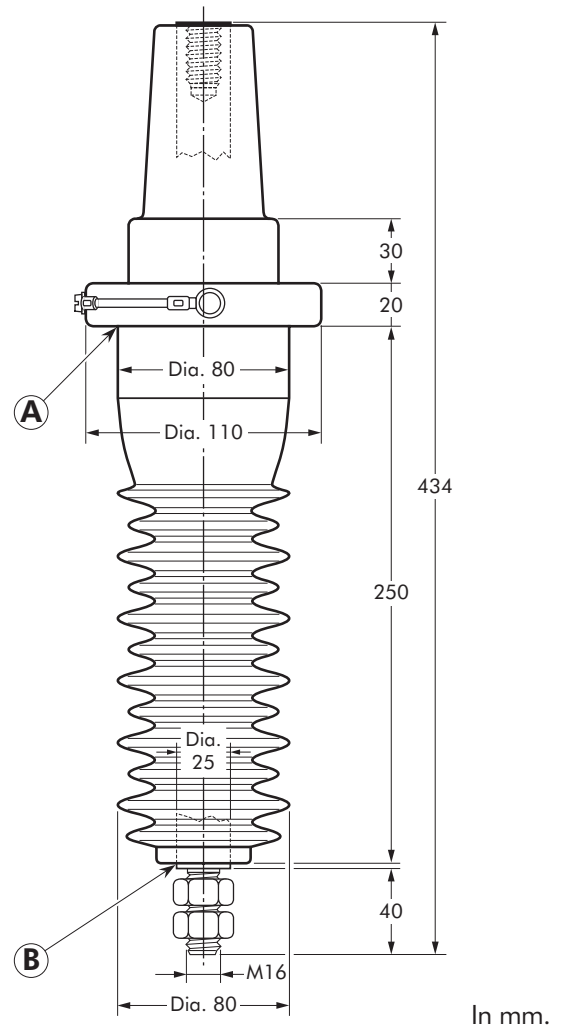
To order the equipment bushing, specify the type. The bushings are supplied with an earth jumper.

To include the ring clamp, add:

- /B, if per British standards
- /D, if per German standards
- /F, if per French standards.

E.g. 400A-24B/D.

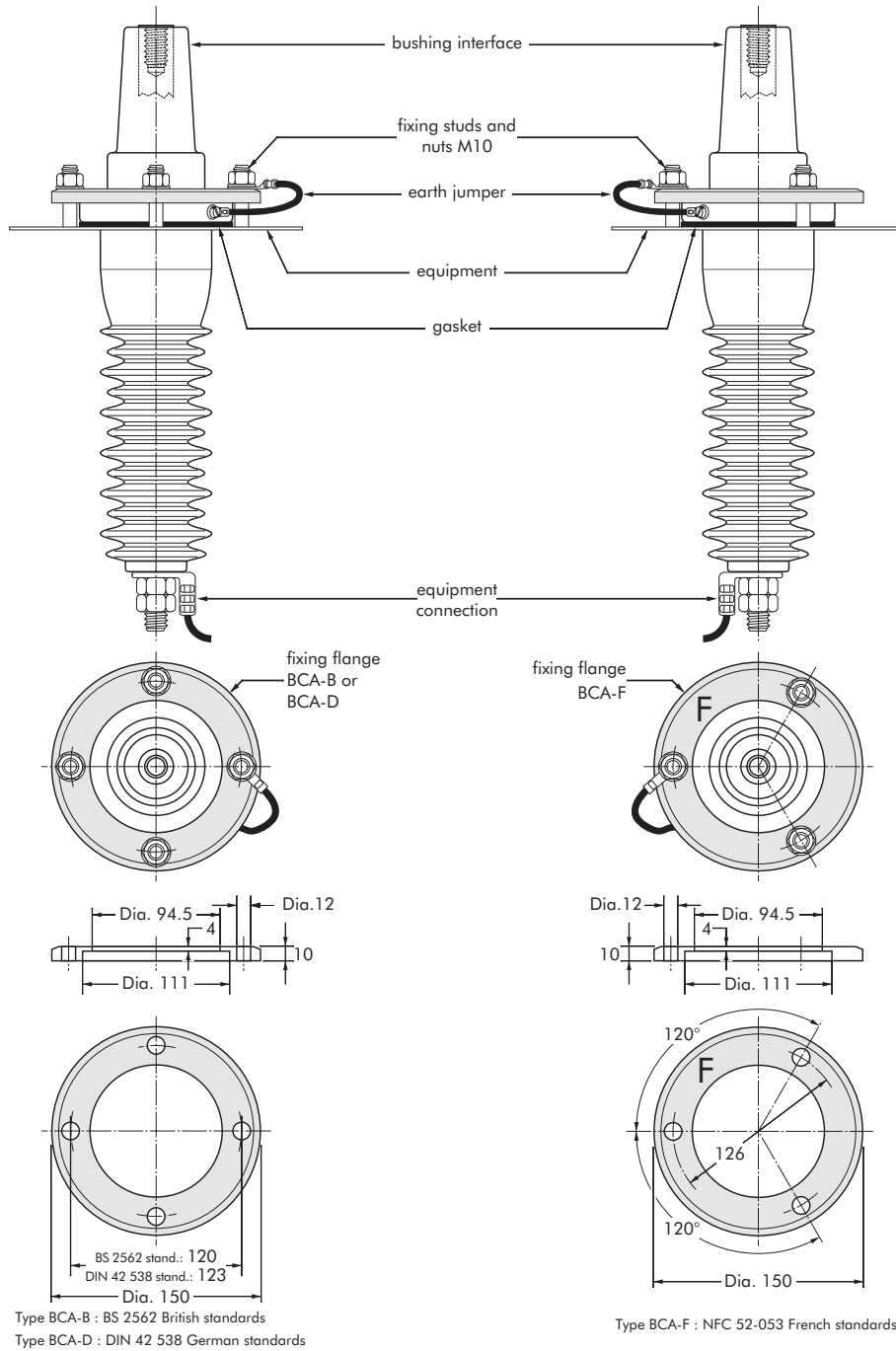
For use in potentially explosive atmospheres (for 12 kV max), order: -/ATEX.



Equipment bushing type	Voltage $U_r$ (kV)	Current $I_r$ (A)	Creepage distance A-B (mm)
400A-24B	12	630	500
400A-24B	24	630	500

# FIXINGS FOR EQUIPMENT BUSHINGS

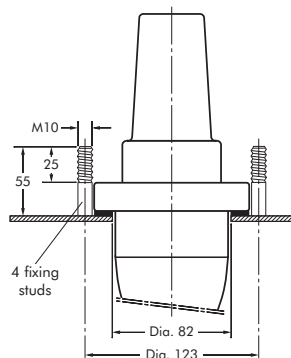
## 400A-24B In-air bushing



## Fixing dimensions standards

DIN 42 538

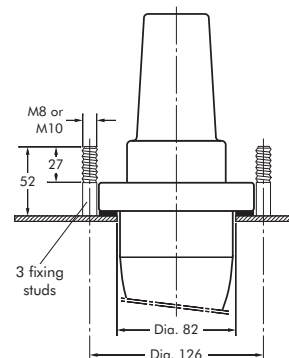
German standards.



## Fixing dimensions standards

NF C 52-053

French standards.





## 400SFR-B INTERFACE C EQUIPMENT BUSHING

### Application

For use in equipment insulated with SF<sub>6</sub> gas.

### Technical characteristics

Each bushing is tested for AC withstand and partial discharge prior to leaving the factory.

**Up to 36 kV  
630 A & 1250 A**

6/10 (12) kV  
6.35/11 (12) kV  
8.7/15 (17.5) kV  
12/20 (24) kV  
12.7/22 (24) kV

### Design

The equipment bushing is a moulded epoxy insulated part with a connector interface in accordance with CENELEC EN 50180.

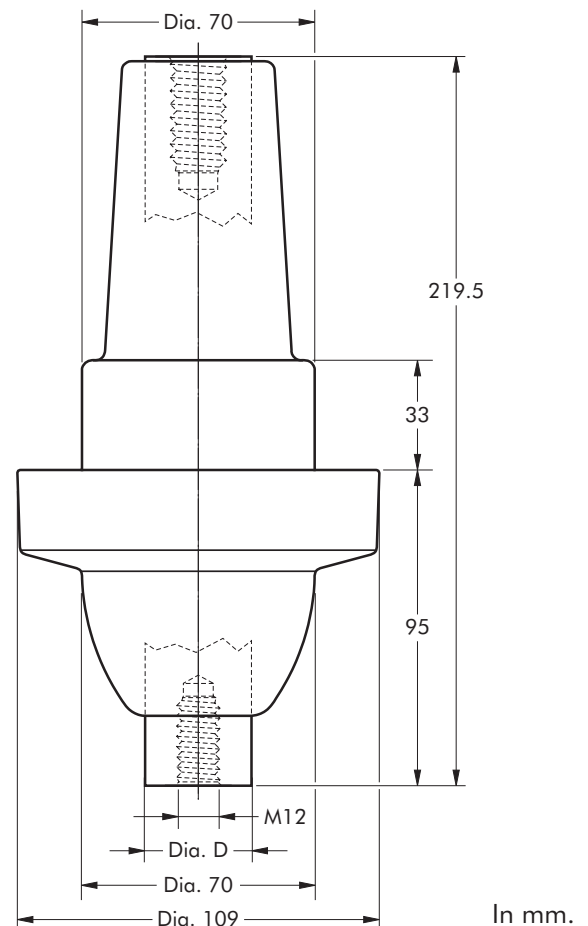
The 400SFR-B bushing has a shank outside this standard, adapted to use in SF<sub>6</sub> gas.

### Specifications and standards

The bolted type equipment bushing 400SFR-B meets the requirements of CENELEC EN 50180 and IEC 137.

### Ordering instructions

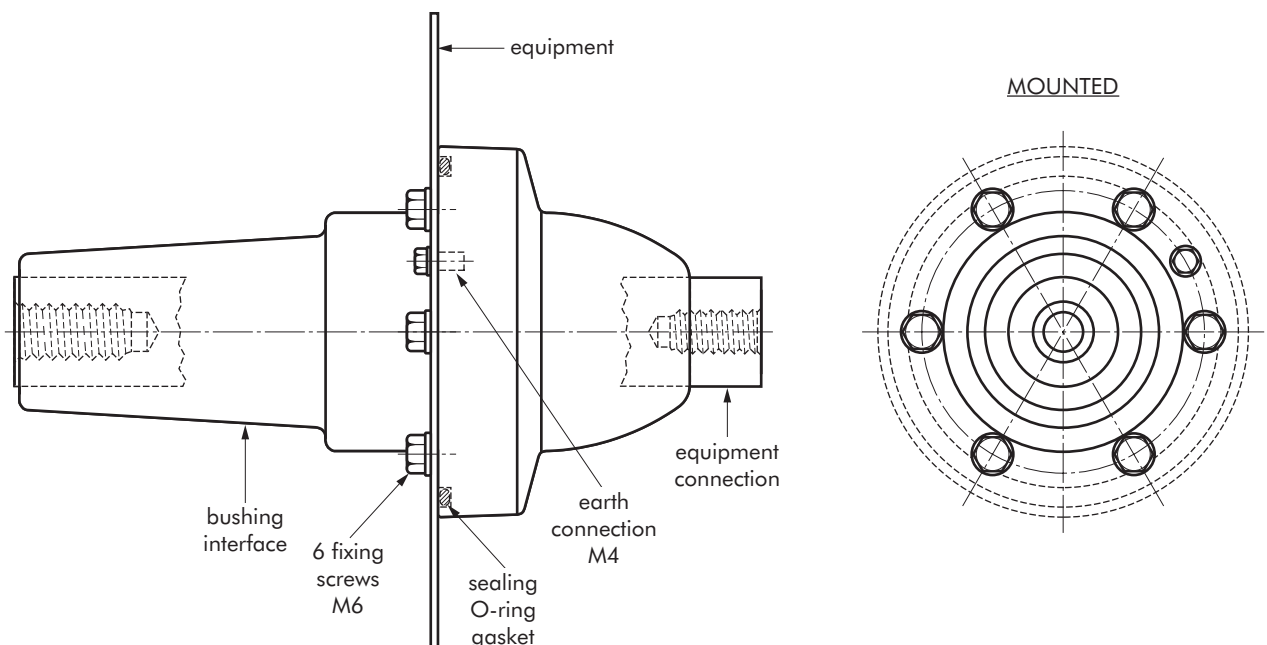
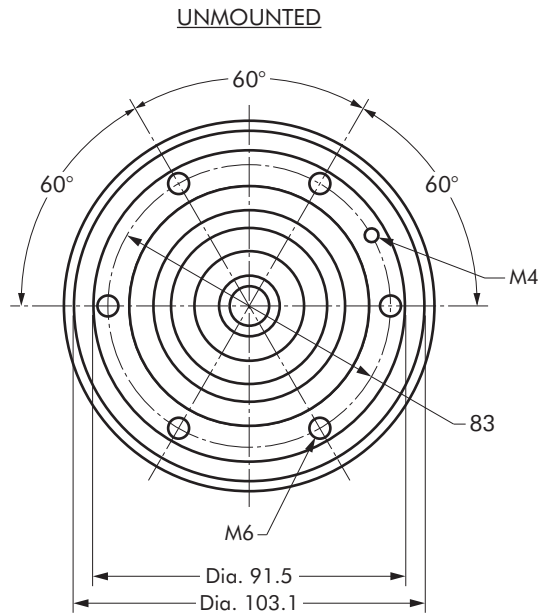
To order the equipment bushing, simply specify the type.



Equipment bushing type	Voltage Ur (kV)	Current Ir (A)	Dia. D (mm)
400SFR-B	12	630	25
K400SFR-B	24	630	25
M400SFR-B	36	630	25
400SFR-B 1250 A	12	1250	32
K400SFR-B 1250 A	24	1250	32
M400SFR-B 1250 A	36	1250	32

# FIXINGS FOR EQUIPMENT BUSHINGS

## I 400SFR-B Bushing for gas insulated switch gear



In mm.