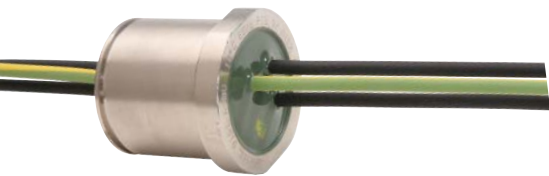




## Line bushings



multi-core  
with threaded sleeve



multi-core  
with cylindrical sleeve



4-pole or 6-pole  
with terminals

### Features

- Space-saving construction as many single cores are gathered in one single sleeve thus requiring only one cable entry hole.
- As all 6 cores are brought out, direct Y-switching. Is also possible on the motor terminal board of Ex d motors.
- Motor mains and thermoprotection cables can be exited in **one** common sleeve.
- Numbered cores simplify connections and eliminate the usual "Ring out" in larger control systems.
- On the Ex d side, the cores are connected directly to the electrical load, intermediate terminals are no longer necessary.
- Small dimensions allow a rated insulation voltage of up to 3 kV
- Blue cores for Ex i low power circuits
- Permanent heat-resistance of the cores up to +110 °C

### Description

A line bushing is a component for the electrical connection between a flameproof "d" enclosure and an increased safety "e" terminal box. The bushing consists of a threaded or non-threaded metal sleeve encapsulating one or more cores providing a flameproof barrier. The lengths of these leads vary according to their applications.

The depth of engagement of the threaded sleeves and the joint length of the cylindrical sleeve in the wall of the "d" enclosure must correspond to the EN 60079-0 and EN 60079-1 standards.

After installation the bushing must be protected against rotation and accidental loosening. Recommendations are given under "Accessories". Our standard bushings come with threaded sleeves from M10 to M48 or with cylindrical sleeves. They are equipped with cores with a 0.2 to 95 mm<sup>2</sup> csa. and approved for nominal voltages between 250 V and 3 000 V. See also table "Electrical data".

For the connection of intrinsically safe circuits in the "d" area with the terminal strip in the connection compartment we provide **line bushings with blue cores for "i" low power circuits.**

Another product of our line-bushing range is the bushing with terminals. Combining Ex d line bushing with an Ex e terminal we designed an element which is hardly any bigger than a normal line bushing. This bushing plus terminals reduces the size of the terminal box and, at the same time, the installation costs. The bushings plus

terminals are rated for 690 V and 1 000 V and PTB-certified. We supply them with 2 to 6 poles and threaded sleeves from M 24 to M 42.

All line bushings have been PTB and BVS tested and certified for their use in hazardous areas according to the European standards EN 50014, EN 50018, EN 50019. BARTEC also has numerous other international approvals for these line bushings.

All line bushings have been certified by the Federal Physical-Technical Institute in accordance with the European standards EN 60079-0, EN 60079-1 and EN 60079-7 concerning electrical operating equipment for explosion-endangered areas for above-ground (II) and underground (I) according to ATEX. BARTEC has furthermore obtained several foreign admissions for these line bushings (FM, UL).

When the 94/9/EC guideline comes into force on 01/07/2003, explosion protected operating equipment must be properly installed in accordance with EN 60079-14.

Among other things, section 10.4.2 requires that **cast, pressure-proof cable insertions according to EN 60079-1 are used for** operating equipment with an internal ignition source for the explosion subgroup IIC and operating equipment with an enclosure volume greater than 2 dm<sup>3</sup> in zone 1.

BARTEC offers a wide range of products with EC type test certification.



Line bushings in the Ex e terminal box



Connection side of the line bushing with terminals

**Explosion protection**

Standard	Ex protection type	Certification
EN 60079-0 and EN 60079-1  UL 886, UL 2279; Class I, Zone 1 Class I, Group A, B, C, D Class II, Group E, F, G FMRC - 3615, -3600, -3810	  Ex d II, Ex d I AEx d IIC  ◀FM▶	Electrical bushings Type 07-91...-/.... PTB 97 ATEX 1047 U IECEX PTB 06.0093 U E225236  J.I.1Q5A5.AE
EN 60079-0 and EN 60079-1	 	Fibre-optic cable bushings Type 57-91...-.../.... PTB 99 ATEX 1090 U
EN 60079-0, EN 60079-1 EN 60079-7 and EN 60079-26	  Ex de II, Ex de I	Bushings for Zone 0, Type 07-96...-.../.... PTB 00 ATEX 1116 U IECEX PTB 06.0061U
EN 60079-0, EN 60079-1, EN 60079-7	 	Line bushings with terminals Type 07-93...-0./.... PTB 00 ATEX 1034 U
IEC 60079-0: 2004, IEC 60079-1: 2001, IEC 60079-7: 2001	Ex de II, Ex de I	IECEX PTB 06.0035U

**Min. ambient temperature:** Depends on the conductor used, down to -55 °C

**Electrical data**

Nominal voltage	Cores	Cross section in mm <sup>2</sup>	Threaded sleeve	Max. on-site temperature
250 V	H05V-K/Radox H07V-K	0.25 to 1.5	M 10 x 1 to M 42 x 1.5	+70 °C/+110 °C
690 V	H07G-K/Radox	0.25 to 70	M 10 x 1 to M 42 x 1.5	+110 °C/+110 °C
1 000 V	NSGAFöu/Radox	1.5 to 95	M 16 x 1 to M 42 x 1.5	+90 °C/+110 °C
3 000 V	NSGAFöu	1.5 to 95	M 24 x 1,5 to M 42 x 1.5	+90 °C
<b>for intrinsically safe circuits</b>				
250 V	H05V-K, blue H07G-K, blue	0.5 to 1.5	M 10 x 1 to M 42 x 1.5	+70 °C/+110 °C
<b>Line bushings with terminals</b>				
690 V	H07G-K	0.75 to 6	M 24 x 1.5 to M 42 x 1.5	+110 °C
1000 V	NSGAFöu/Radox	1.5 to 6	M 33 x 1.5 to M 42 x 1.5	+90 °C/+110 °C

**Selection chart**

Sleeve type	Code no.	Nominal voltage	Code no.	Conductor, cross-section mm <sup>2</sup>	Code no.	Sleeve size	Code no.	Protection class (testing agency/standard status)	Code no.	
threaded, metric	0	690 V	1	Special diameter	A	M10 x 1	0	Ex d II/I (PTB) ATEX	G	
				0.25	C	M16 x 1	1			
				0.35	D					
threaded other than metric	1	250 V	2	0.5	E	M24 x 1.5	2	Ex d II for intrinsically safe circuits (PTB) ATEX	H	
				0.75	F	∅ ≥ 22 mm				
special threaded	3	1 000 V	3	1	G	M33 x 1.5	3	Ex d II for intrinsically safe circuits (PTB) ATEX	H	
				1.5	H	∅ ≥ 32 mm				
				2.5	J	M36 x 1.5				4
4	K									
pluggable, length of crack 12.5 mm	5	3 000 V	4	6	L	M38 x 1.5	5	Ex d (FM)	M	
				10	M	∅ ≥ 36 mm				
pluggable, length of crack 25 mm	6	special voltage > AC 50 V/ DC 75 V	8	16	N	M42 x 1.5	6	Ex d (UL)	U	
				25	P	M12 x 1.5				C
				35	Q					
pluggable, length of crack 40 mm	7	≤ AC 50 V/ DC 75 V	9	50	R	M16 x 1.5	D	Ex d (UL)	U	
				70	S	M20 x 1.5				E
				95	T					
				Mixed cores	Z	M25 x 1.5				F

**Complete order no.** 07-91   -   /

Please insert correct code.

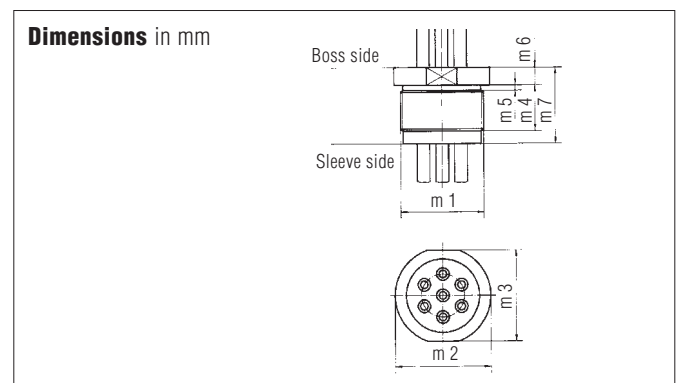
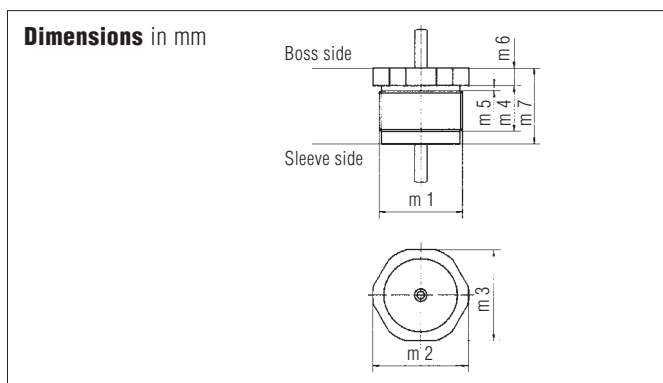
**Number of cores**  
z. B. 02 = 2 cores; 21 = 21 cores; etc. 1 ... 40 cores

**Core length:** as ordered  
**Core identification:** printed numbers



**Selection chart - cores H05V-K or H07V-K**

Number of cores	Conductor cross section mm <sup>2</sup>	Rated current (A) for continuous operation (reference values) <sup>2)</sup> Maximum on-site temperature +70 °C	Thread size	Dimensions m 7 mm	Order no. Indicate core length on both boss and sleeve side and colour of cores for EX i circuits in plain text
1	0.5	4 A	M10 x 1	25	<b>07-9102-E010</b>
1	0.5		M12 x 1.5	25	<b>07-9102-E01C</b>
6	0.5		M16 x 1	25	<b>07-9102-E061</b>
6	0.5		M16 x 1.5	25	<b>07-9102-E06D</b>
15	0.5		M24 x 1.5	26	<b>07-9102-E152</b>
15	0.5		M25 x 1.5	26	<b>07-9102-E15F</b>
16	0.5		M33 x 1.5	30	<b>07-9102-E163</b>
20	0.5		M36 x 1.5	35	<b>07-9102-E204</b>
30	0.5		M38 x 1.5	36	<b>07-9102-E305</b>
40	0.5		M42 x 1.5	35	<b>07-9102-E406</b>
1	0.75	9 A	M10 x 1	25	<b>07-9102-F010</b>
1	0.75		M12 x 1.5	25	<b>07-9102-F01C</b>
3	0.75		M16 x 1	25	<b>07-9102-F031</b>
3	0.75		M16 x 1.5	25	<b>07-9102-F03D</b>
6	0.75		M24 x 1.5	26	<b>07-9102-F062</b>
6	0.75		M25 x 1.5	26	<b>07-9102-F06F</b>
12	0.75		M33 x 1.5	30	<b>07-9102-F123</b>
15	0.75		M36 x 1.5	35	<b>07-9102-F154</b>
24	0.75		M38 x 1.5	36	<b>07-9102-F245</b>
24	0.75		M42 x 1.5	35	<b>07-9102-F246</b>
1	1.5	16 A	M10 x 1	25	<b>07-9102-H010</b>
1	1.5		M12 x 1.5	25	<b>07-9102-H01C</b>
3	1.5		M16 x 1	25	<b>07-9102-H031</b>
3	1.5		M16 x 1.5	25	<b>07-9102-H03D</b>
6	1.5		M24 x 1.5	26	<b>07-9102-H062</b>
6	1.5		M25 x 1.5	26	<b>07-9102-H06F</b>
12	1.5		M33 x 1.5	30	<b>07-9102-H123</b>
15	1.5		M36 x 1.5	35	<b>07-9102-H154</b>
24	1.5		M38 x 1.5	36	<b>07-9102-H245</b>
24	1.5		M42 x 1.5	35	<b>07-9102-H246</b>



m 1	m 2	m 3	m 4	m 5	m 6
M10 x 1	13.5	12	16	1.5	5
M12 x 1.5	16.5	15	17	2.0	5
M16 x 1	21	19	17	1.5	5
M16 x 1.5	21	19	17	2.0	5
M24 x 1.5	29	27	19	2.0	5
M25 x 1.5	29	27	19	2.0	5

m 1	m 2	m 3	m 4	m 5	m 6
M33 x 1.5	∅ 38	36	18	2.0	7
M36 x 1.5	∅ 42	40	25	2.0	7
M38 x 1.5	∅ 40	37	24	2.0	8
M42 x 1.5	∅ 48	46	25	2.0	7

<sup>1)</sup> Maximum nominal voltage 275 V

<sup>2)</sup> Maximum current carrying capacity of the cores on site depends on their own temperature and that of the enclosure at maximum ambient temperature.

**Other equipment and special sleeves on request.**



**Selection chart - cores 4GAF 0.75 mm<sup>2</sup>/H07G-K from 1.5 mm<sup>2</sup>**

Number of cores	Conductor cross section mm <sup>2</sup>	Rated current (A) for continuous operation (reference values) <sup>2)</sup>					Thread size	Dimensions m 7 mm	Order no. Indicate core length on both boss and sleeve side in plain text.
		Maximum on-site temperature 70 °C							
		multi-core				single core			
		+65 °C	+80 °C	+100 °C	+110 °C	+80 °C			
1	0.75						M10 x 1	25	<b>07-9101-F010</b> <b>07-9101-F01C</b> <b>07-9101-F031</b> <b>07-9101-F03D</b> <b>07-9101-F062</b> <b>07-9101-F06F</b> <b>07-9101-F123</b> <b>07-9101-F154</b> <b>07-9101-F245</b> <b>07-9101-F256</b>
1	0.75						M12 x 1.5	25	
3	0.75						M16 x 1	25	
3	0.75						M16 x 1.5	25	
6	0.75	13 A	10 A	8 A	< 5 A	16 A	M24 x 1.5	26	
6	0.75						M25 x 1.5	46	
12	0.75						M33 x 1.5	30	
15	0.75						M36 x 1.5	35	
24	0.75						M38 x 1.5	36	
25	0.75						M42 x 1.5	35	
1	1.5						M10 x 1	25	<b>07-9101-H010</b> <b>07-9101-H01C</b> <b>07-9101-H031</b> <b>07-9101-H03D</b> <b>07-9101-H062</b> <b>07-9101-H06F</b> <b>07-9101-H123</b> <b>07-9101-H154</b> <b>07-9101-H155</b> <b>07-9101-H256</b>
1	1.5						M12 x 1.5	25	
3	1.5						M16 x 1	25	
3	1.5						M16 x 1.5	25	
6	1.5	20 A	15 A	13 A	< 8 A	25 A	M24 x 1.5	26	
6	1.5						M25 x 1.5	46	
12	1.5						M33 x 1.5	30	
15	1.5						M36 x 1.5	35	
15	1.5						M38 x 1.5	36	
25	1.5						M42 x 1.5	35	
1	2.5						M16 x 1	25	<b>07-9101-J011</b> <b>07-9101-J01D</b> <b>07-9101-J032</b> <b>07-9101-J03F</b> <b>07-9101-J083</b> <b>07-9101-J104</b> <b>07-9101-J105</b> <b>07-9101-J146</b>
1	2.5						M16 x 1.5	25	
3	2.5	27 A	20 A	18 A	< 10 A	34 A	M24 x 1.5	26	
3	2.5						M25 x 1.5	46	
8	2.5						M33 x 1.5	30	
10	2.5						M36 x 1.5	35	
10	2.5						M38 x 1.5	36	
14	2.5						M42 x 1.5	35	
1	4						M16 x 1	25	<b>07-9101-K011</b> <b>07-9101-K01D</b> <b>07-9101-K032</b> <b>07-9101-K03F</b> <b>07-9101-K063</b> <b>07-9101-K084</b> <b>07-9101-K085</b> <b>07-9101-K126</b>
1	4						M16 x 1.5	25	
3	4	36 A	27 A	23 A	< 14 A	45 A	M24 x 1.5	26	
3	4						M25 x 1.5	46	
6	4						M33 x 1.5	30	
8	4						M36 x 1.5	35	
8	4						M38 x 1.5	36	
12	4						M42 x 1.5	35	
1	6						M16 x 1	25	<b>07-9101-L011</b> <b>07-9101-L01D</b> <b>07-9101-L022</b> <b>07-9101-L02F</b> <b>07-9101-L063</b> <b>07-9101-L064</b> <b>07-9101-L065</b> <b>07-9101-L086</b>
1	6						M16 x 1.5	25	
2	6	47 A	35 A	31 A	18 A	57 A	M24 x 1.5	26	
2	6						M25 x 1.5	46	
6	6						M33 x 1.5	30	
6	6						M36 x 1.5	35	
6	6						M38 x 1.5	36	
8	6						M42 x 1.5	35	
1	10						M16 x 1.5	25	<b>07-9101-M011</b> <b>07-9101-M01D</b> <b>07-9101-M012</b> <b>07-9101-M033</b> <b>07-9101-M064</b> <b>07-9101-M065</b> <b>07-9101-M086</b>
1	10						M16 x 1.5	25	
1	10	65 A	49 A	42 A	< 25 A	78 A	M24 x 1.5	26	
3	10						M33 x 1.5	30	
6	10						M36 x 1.5	35	
6	10						M38 x 1.5	36	
8	10						M42 x 1.5	35	
1	16						M24 x 1.5	40	
1	16	87 A	65 A	57 A	< 33 A	104 A	M25 x 1.5	46	
3	16						M33 x 1.5	40	
3	16						M36 x 1.5	40	
3	16						M38 x 1.5	40	
6	16						M42 x 1.5	40	
1	25	-	-	-	-	137 A	M24 x 1.5	40	<b>07-9101-P012</b> <b>07-9101-P01F</b>
1	25						M25 x 1.5	46	
1	35	-	-	-	-	168 A	M24 x 1.5	40	<b>07-9101-Q012</b> <b>07-9101-Q01F</b>
1	35						M25 x 1.5	46	
1	50	-	-	-	-	210 A	M24 x 1.5	40	<b>07-9101-R012</b> <b>07-9101-R01F</b>
1	50						M25 x 1.5	46	
1	70	-	-	-	-	260 A	M33 x 1.5	50	<b>07-9101-S013</b> <b>07-9101-S014</b>
1	70						M36 x 1.5	50	

03-0330-0181/A-10/10-BCS-200637/4

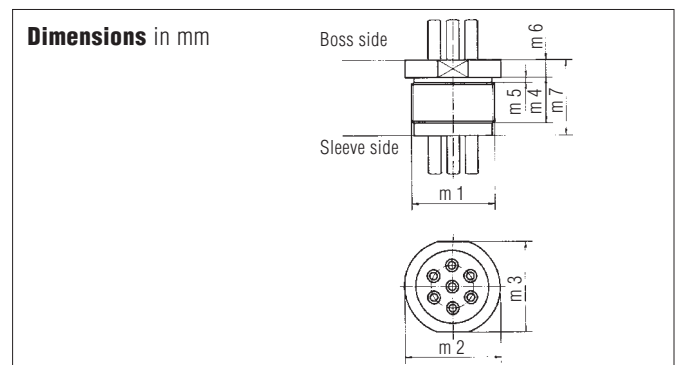
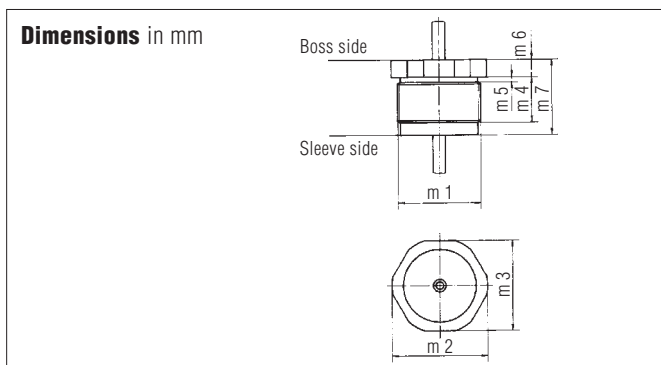
<sup>1)</sup> Maximum nominal voltage 750 V  
<sup>2)</sup> Maximum current carrying capacity of the cores on site depends on their own temperature and that of the enclosure at maximum ambient temperature.  
**Other equipment, mixed cores and special sleeves on request.**





**Selection chart - cores NSGAFöu**

Number of cores	Conductor cross section mm <sup>2</sup>	Rated current (A) for continuous operation (reference values) <sup>2)</sup> Maximum on-site temperature +90 °C	Thread size	Dimensions m 7 <sup>3)</sup> mm	Order no. Indicate core length on both boss and sleeve side in plain text.
1	1.5	18 A	M16 x 1	25	<b>07-9103-H011</b> <b>07-9103-H01D</b>
1	1.5		M16 x 1,5	25	
3	1.5	12 A	M24 x 1,5	26	<b>07-9103-H032</b> <b>07-9103-H03F</b> <b>07-9103-H083</b> <b>07-9103-H104</b> <b>07-9103-H105</b> <b>07-9103-H156</b>
3	1.5		M25 x 1,5	26	
8	1.5		M33 x 1,5	30	
10	1.5		M36 x 1,5	35	
10	1.5		M38 x 1,5	36	
15	1.5		M42 x 1,5	35	
1	2.5	25 A	M16 x 1	25	<b>07-9103-J011</b> <b>07-9103-J01D</b>
1	2.5		M16 x 1,5	25	
5	2.5	18 A	M33 x 1,5	30	<b>07-9103-J053</b> <b>07-9103-J064</b> <b>07-9103-J065</b> <b>07-9103-J086</b>
6	2.5		M36 x 1,5	35	
6	2.5		M38 x 1,5	36	
8	2.5		M42 x 1,5	35	
1	4	34 A	M24 x 1,5	26	<b>07-9103-K012</b> <b>07-9103-K01F</b>
1	4		M25 x 1,5	26	
3	4	27 A	M33 x 1,5	30	<b>07-9103-K033</b> <b>07-9103-K054</b> <b>07-9103-K055</b> <b>07-9103-K066</b>
5	4		M36 x 1,5	35	
5	4		M38 x 1,5	36	
6	4		M42 x 1,5	35	
1	6	42 A	M24 x 1,5	26	<b>07-9103-L012</b> <b>07-9103-L01F</b>
1	6		M25 x 1,5	26	
3	6	36 A	M33 x 1,5	30	<b>07-9103-L033</b> <b>07-9103-L044</b> <b>07-9103-L045</b> <b>07-9103-L066</b>
4	6		M36 x 1,5	35	
4	6		M38 x 1,5	36	
4	6		M42 x 1,5	35	
6	6				
1	10	58 A	M24 x 1,5	26	<b>07-9103-M012</b> <b>07-9103-M01F</b>
1	10		M25 x 1,5	26	
2	10	47 A	M33 x 1,5	30	<b>07-9103-M023</b> <b>07-9103-M034</b> <b>07-9103-M035</b>
3	10		M36 x 1,5	35	
3	10		M38 x 1,5	36	
1	16	78 A	M24 x 1,5	26	<b>07-9103-N012</b> <b>07-9103-N01F</b>
1	16		M25 x 1,5	26	
3	16	65 A	M42 x 1,5	35	<b>07-9103-N036</b>
1	25	103 A	M24 x 1,5	26	<b>07-9103-P012</b> <b>07-9103-P01F</b>
1	25		M25 x 1,5	26	
1	35	126 A	M33 x 1,5	30	<b>07-9103-Q013</b> <b>07-9103-Q015</b>
1	35		M38 x 1,5	30	
1	50	157 A	M33 x 1,5	50	<b>07-9103-R013</b>



m 1	m 2	m 3	m 4	m 5	m 6
M16 x 1	21	19	22	1.5	5
M16 x 1.5	21	19	22	2.0	5
M24 x 1.5	29	27	22	2.0	5
M25 x 1.5	29	27	35	2.0	5

m 1	m 2	m 3	m 4	m 5	m 6
M33 x 1.5	∅ 38	36	25	2.0	7
M36 x 1.5	∅ 42	40	25	2.0	7
M38 x 1.5	∅ 42	40	25	2.0	8
M42 x 1.5	∅ 48	46	25	2.0	7

<sup>1)</sup> Maximum nominal voltage 1 100 V  
<sup>2)</sup> Maximum current carrying capacity of the cores on site depends on their own temperature and that of the enclosure at maximum ambient temperature.  
<sup>3)</sup> Thread size M25 x 1.5 - dimensions m 7 = 46 mm

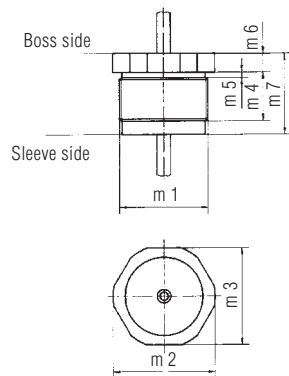
**Other equipment, core combinations and special sleeves on request.**



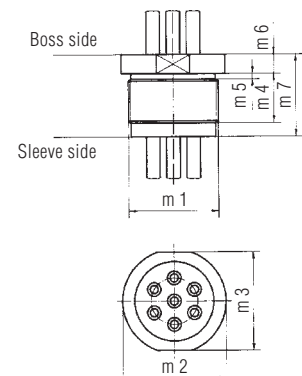
**Selection chart - cores NSGAFöu**

Number of cores	Conductor cross section mm <sup>2</sup>	Rated current (A) for continuous operation (reference values) <sup>2)</sup> Maximum on-site temperature +90 °C	Thread size	Dimensions m 7 <sup>3)</sup> mm	Order no. Indicate core length on both boss and sleeve side in plain text.
1	1.5	18 A	M24 x 1,5	26	<b>07-9104-H012</b> <b>07-9104-H01F</b> <b>07-9104-H033</b> <b>07-9104-H064</b> <b>07-9104-H065</b> <b>07-9104-H086</b>
1	1.5		M25 x 1,5	26	
3	1.5	12 A	M33 x 1,5	30	
6	1.5		M36 x 1,5	35	
6	1.5		M38 x 1,5	36	
8	1.5		M42 x 1,5	35	
1	2.5	25 A	M24 x 1,5	26	<b>07-9104-J012</b> <b>07-9104-J01F</b> <b>07-9104-J033</b> <b>07-9104-J054</b> <b>07-9104-J055</b> <b>07-9104-J086</b>
1	2.5		M25 x 1,5	26	
3	2.5	18 A	M33 x 1,5	30	
5	2.5		M36 x 1,5	35	
5	2.5		M38 x 1,5	36	
8	2.5		M42 x 1,5	35	
1	4	34 A	M24 x 1,5	26	<b>07-9104-K012</b> <b>07-9104-K01F</b> <b>07-9104-K033</b> <b>07-9104-K034</b> <b>07-9104-K035</b> <b>07-9104-K066</b>
1	4		M25 x 1,5	26	
3	4	27 A	M33 x 1,5	30	
3	4		M36 x 1,5	35	
3	4		M38 x 1,5	36	
6	4		M42 x 1,5	35	
1	6	42 A	M24 x 1,5	26	<b>07-9104-L012</b> <b>07-9104-L01F</b> <b>07-9104-L033</b> <b>07-9104-L044</b> <b>07-9104-L045</b> <b>07-9104-L066</b>
1	6		M25 x 1,5	26	
3	6	36 A	M33 x 1,5	30	
4	6		M36 x 1,5	36	
4	6		M38 x 1,5	36	
6	6		M42 x 1,5	35	
1	10	58 A	M24 x 1,5	26	<b>07-9104-M012</b> <b>07-9104-M01F</b> <b>07-9104-M023</b> <b>07-9104-M034</b> <b>07-9104-M035</b> <b>07-9104-M036</b>
1	10		M25 x 1,5	26	
2	10	47 A	M33 x 1,5	30	
3	10		M36 x 1,5	35	
3	10		M38 x 1,5	36	
3	10		M42 x 1,5	35	
1	16	78 A	M24 x 1,5	26	<b>07-9104-N012</b> <b>07-9104-N01F</b> <b>07-9104-N025</b> <b>07-9104-N036</b>
1	16		M25 x 1,5	26	
2	16	65 A	M38 x 1,5	36	
3	16		M42 x 1,5	35	
1	25	103 A	M33 x 1,5	30	<b>07-9104-P013</b> <b>07-9104-P014</b> <b>07-9104-P015</b> <b>07-9104-P026</b>
1	25		M36 x 1,5	35	
1	25		M38 x 1,5	36	
2	25		M42 x 1,5	35	
1	35	126 A	M33 x 1,5	30	<b>07-9104-Q013</b> <b>07-9104-Q014</b> <b>07-9104-Q015</b>
1	35		M36 x 1,5	35	
1	35		M38 x 1,5	36	
1	50	157 A	M33 x 1,5	50	<b>07-9104-R013</b>

Dimensions in mm



Dimensions in mm



03-0330-0181/A-10/10-BCS-200637/6

<sup>1)</sup> Maximum nominal current 3 300 V

<sup>2)</sup> Maximum current carrying capacity of the cores on site depends on their temperature their own self heating and that of the enclosure at maximum ambient temperature.

<sup>3)</sup> Thread size 25 x 1.5 - Dimensions m 7 = 46 mm

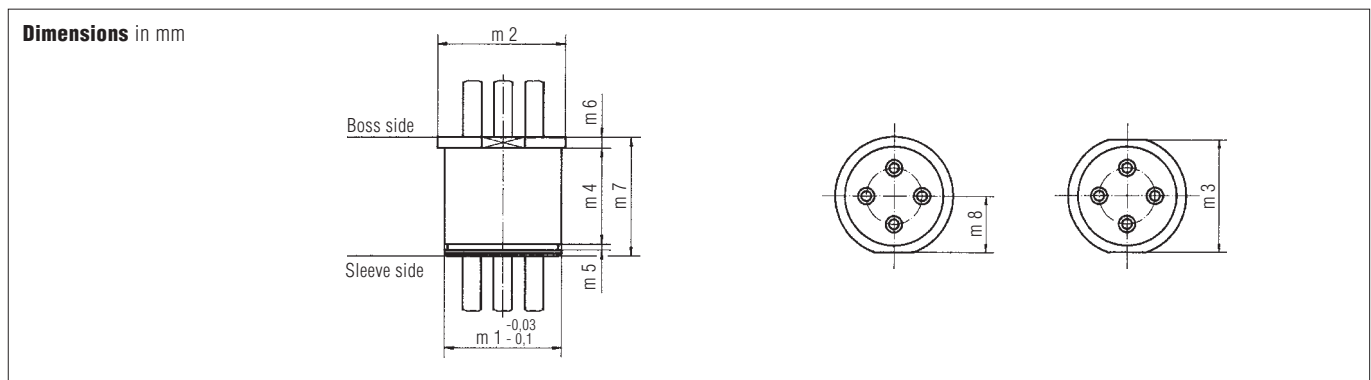
**Other equipment, core combinations and special sleeves on request.**



**Selection chart - cores 4GAF 0.75 mm<sup>2</sup>/H07G-K from 1.5 mm<sup>2</sup>**

Number of cores	Conductor cross section mm <sup>2</sup>	Rated current(A) for continuous operation (reference values) <sup>2)</sup>					sleeve size	Dimensions m 7 mm	Order no. Joint length L = 15 mm <b>07-..5.-</b> Joint length L = 25 mm <b>07-..6.-</b> Indicate the core length on both the boss sleeve sides in plain text
		Maximum on-site temperature				single core			
		multi-core	+65 °C	+80 °C	+100 °C				
6 6 12 15	0.75 0.75 0.75 0.75	13	10	8	< 5	16	∅ 22 ∅ 22 ∅ 32 ∅ 36	23 31 32 39	<b>07-9151-F062</b> <b>07-9161-F062</b> <b>07-9161-F123</b> <b>07-9161-F155</b>
6 6 12 15	1.5 1.5 1.5 1.5	20	15	13	< 8	25	∅ 22 ∅ 22 ∅ 32 ∅ 36	23 31 32 39	<b>07-9151-H062</b> <b>07-9161-H062</b> <b>07-9161-H123</b> <b>07-9161-H155</b>
3 6 10	2.5 2.5 2.5	27	20	18	< 10	34	∅ 22 ∅ 32 ∅ 36	31 32 39	<b>07-9161-J032</b> <b>07-9161-J063</b> <b>07-9161-J105</b>
3 6 8	4 4 4	36	27	23	< 14	45	∅ 22 ∅ 32 ∅ 36	31 32 39	<b>07-9161-K032</b> <b>07-9161-K063</b> <b>07-9161-K085</b>
2 6 8	6 6 6	47	35	31	< 18	57	∅ 22 ∅ 32 ∅ 36	31 32 39	<b>07-9161-L022</b> <b>07-9161-L063</b> <b>07-9161-L085</b>
1 6	10 10	65	49	42	< 25	78	∅ 32 ∅ 36	32 39	<b>07-9161-M013</b> <b>07-9161-M065</b>
4	16	87	65	57	< 33	104	∅ 36	39	<b>07-9161-N045</b>
1	25	115	137	75	< 44	137	∅ 36	39	<b>07-9161-P015</b>
1	35	143	168	93	< 54	168	∅ 36	39	<b>07-9161-Q015</b>
1	50	-	-	-	-	210	∅ 36	39	<b>07-9161-R015</b>

- Note:**
1. Cylindrical sleeves with joint length L = 15 mm (**type 07-9151**) for enclosures with a volume of ≤ 2 litres.
  2. Cylindrical sleeves with joint length L = 25 mm (**type 07-9161**) for enclosures with a volume of > 2 litres.



Joint length L	m 1	m 2	m 3	m 4	m 5	m 6	m 8
15 mm	∅ 22	∅ 25	-	16.1	1.3	2	11.1 + 0.2
25 mm	∅ 22	∅ 25	-	26.1	1.3	2	11.1 + 0.2
25 mm	∅ 32	∅ 36	-	26.1	1.6	3	17.1 - 0.2
25 mm	∅ 36	∅ 42	AF 40	28.1	1.85	7	-

Other cross sections on request.

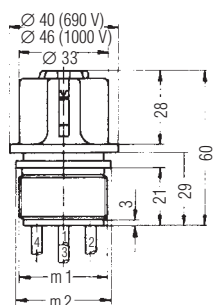
<sup>1)</sup> Maximum nominal voltage 750 V  
<sup>2)</sup> Maximum current carrying capacity of the cores on site depend on their own temperature and that of the enclosure at maximum ambient temperature.



**Selection chart - cores 4GAF 0.75 mm<sup>2</sup>/H07G-K from 1.5 mm<sup>2</sup>/690 V, NSGAFöu/1 000 V**

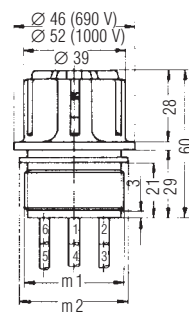
Rated insulation voltage <sup>1)</sup>	No. of terminals/cores	Conductor cross section mm <sup>2</sup>	Thread size	Rated current (A) for continuous operation (reference values) <sup>2)</sup>				Order no. Add core length in cm e.g. 10 cm = 10		
				Maximum on-site temperature						
				+65 °C	+80 °C	+100 °C	+110 °C			
690 V H07G-K 4GAF 0.75 mm <sup>2</sup>	4	0.75	M24 x 1.5	13 A	10 A	8 A	< 5 A	<b>07-9304-F042/</b>	<input type="checkbox"/>	
		1.5	M24 x 1.5	20 A	15 A	13 A	< 8 A	<b>07-9304-H042/</b>	<input type="checkbox"/>	
		2.5	M24 x 1.5	27 A	20 A	18 A	< 10 A	<b>07-9304-J042/</b>	<input type="checkbox"/>	
		4	M24 x 1.5	36 A	27 A	23 A	< 14 A	<b>07-9304-K042/</b>	<input type="checkbox"/>	
	4	0.75	M33 x 1.5	13 A	10 A	8 A	< 5 A	<b>07-9304-F043/</b>	<input type="checkbox"/>	
		1.5	M33 x 1.5	20 A	15 A	13 A	< 8 A	<b>07-9304-H043/</b>	<input type="checkbox"/>	
		2.5	M33 x 1.5	27 A	20 A	18 A	< 10 A	<b>07-9304-J043/</b>	<input type="checkbox"/>	
		4	M33 x 1.5	36 A	27 A	23 A	< 14 A	<b>07-9304-K043/</b>	<input type="checkbox"/>	
	4	6	M33 x 1.5	47 A	35 A	31 A	< 18 A	<b>07-9304-L043/</b>	<input type="checkbox"/>	
		0.75	M42 x 1.5	13 A	10 A	8 A	< 5 A	<b>07-9304-F046/</b>	<input type="checkbox"/>	
		1.5	M42 x 1.5	20 A	15 A	13 A	< 8 A	<b>07-9304-H046/</b>	<input type="checkbox"/>	
		2.5	M42 x 1.5	27 A	20 A	18 A	< 10 A	<b>07-9304-J046/</b>	<input type="checkbox"/>	
690 V H07G-K 4GAF 0.75 mm <sup>2</sup>	6	4	M42 x 1.5	36 A	27 A	23 A	< 14 A	<b>07-9304-K046/</b>	<input type="checkbox"/>	
		6	M42 x 1.5	47 A	35 A	31 A	< 18 A	<b>07-9304-L046/</b>	<input type="checkbox"/>	
		0.75	M38 x 1.5	13 A	10 A	8 A	< 5 A	<b>07-9304-F065/</b>	<input type="checkbox"/>	
		1.5	M38 x 1.5	20 A	15 A	13 A	< 8 A	<b>07-9304-H065/</b>	<input type="checkbox"/>	
	6	2.5	M38 x 1.5	27 A	20 A	18 A	< 10 A	<b>07-9304-J065/</b>	<input type="checkbox"/>	
		4	M38 x 1.5	36 A	27 A	23 A	< 14 A	<b>07-9304-K065/</b>	<input type="checkbox"/>	
		6	M38 x 1.5	47 A	35 A	31 A	< 18 A	<b>07-9304-L065/</b>	<input type="checkbox"/>	
		0.75	M42 x 1.5	13 A	10 A	8 A	< 5 A	<b>07-9304-F066/</b>	<input type="checkbox"/>	
	1 000 V (NSGAFöu)	4	1.5	M42 x 1.5	16 A	12 A	-	-	<b>07-9306-H046/</b>	<input type="checkbox"/>
			2.5	M42 x 1.5	23 A	18 A	-	-	<b>07-9306-J046/</b>	<input type="checkbox"/>
			4	M42 x 1.5	36 A	27 A	-	-	<b>07-9306-K046/</b>	<input type="checkbox"/>
			6	M42 x 1.5	47 A	36 A	-	-	<b>07-9306-L046/</b>	<input type="checkbox"/>
4		1.5	M33 x 1.5	16 A	12 A	-	-	<b>07-9306-H043/</b>	<input type="checkbox"/>	
		2.5	M33 x 1.5	23 A	18 A	-	-	<b>07-9306-J043/</b>	<input type="checkbox"/>	
		4	M33 x 1.5	36 A	27 A	-	-	<b>07-9306-K043/</b>	<input type="checkbox"/>	
		6	M33 x 1.5	47 A	36 A	-	-	<b>07-9306-L043/</b>	<input type="checkbox"/>	
1 000 V (NSGAFöu)		6	1.5	M42 x 1.5	16 A	12 A	-	-	<b>07-9306-H066/</b>	<input type="checkbox"/>
			2.5	M42 x 1.5	23 A	18 A	-	-	<b>07-9306-J066/</b>	<input type="checkbox"/>
			4	M42 x 1.5	36 A	27 A	-	-	<b>07-9306-K066/</b>	<input type="checkbox"/>
			6	M42 x 1.5	47 A	36 A	-	-	<b>07-9306-L066/</b>	<input type="checkbox"/>
	6	1.5	M38 x 1.5	16 A	12 A	-	-	<b>07-9306-H065/</b>	<input type="checkbox"/>	
		2.5	M38 x 1.5	23 A	18 A	-	-	<b>07-9306-J065/</b>	<input type="checkbox"/>	
		4	M38 x 1.5	36 A	27 A	-	-	<b>07-9306-K065/</b>	<input type="checkbox"/>	
		6	M38 x 1.5	47 A	36 A	-	-	<b>07-9306-L065/</b>	<input type="checkbox"/>	

Dimensions in mm



690 V und 1 000 V			
m 1	M24 x 1.5	M33 x 1.5	M42 x 1.5
m 2	Ø 30	Ø 36	Ø 44

Dimensions in mm



690 V und 1 000 V		
m 1	M38 x 1.5	M42 x 1.5
m 2	Ø 40	Ø 44

03-0330-0181-08/08-BCS-200637/8

<sup>1)</sup> Maximum nominal voltage 750 V or 1 100 V respectively.

<sup>2)</sup> Maximum current carrying capacity of the cores on site depend on their own temperature and that of the enclosure at maximum ambient temperature.

Max. tightening torque of fixing screws 1 Nm.