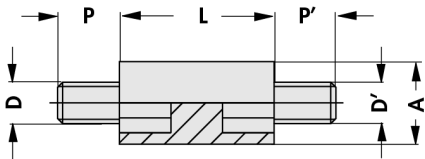


Distance sleeves and spacers

Insulating spacers with internal and external thread



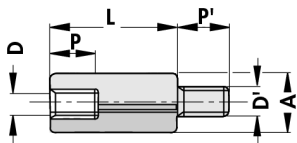
- insulated assembly of stacked PCBs
- insulated assembly of stacked heatsinks with varying capacities
- insulated assembly of chassis plates in cases
- insulated supports in the wiring
- mechanically very stable, as threads are made of brass
- other lengths on request



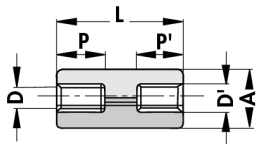
art. no.	A [mm]	dim. [mm]		
		L	D/D'	P/P'
ISAB 3 A ...	8.0	10/ 20	M3/M3	6.0
ISAB 4 A ...	8.0	15/ 20/ 25	M4/M4	6.0
ISAB 5 A ...	9.5	20/ 25/ 30/ 35/ 40	M5/M5	10.0
ISAB 6 A ...	12.7	25	M6/M6	12.7

... Please indicate length "L"
other lengths on request
dimensions = nominal size: deviation ±0.5 mm

dielectric strength	approx. 40 KV/mm
creeping current resistance	3c, level KA
thread inserts	brass
temper. range	-30 °C ... +85 °C (short term +200 °C)
surface treatment	raw
plastic body	polyamide 66
colour	natural (opaque)



art. no.	A [mm]	dim. [mm]		
		L	D/D'	P/P'
ISAB 3 B ...	8.0	10/ 13/ 15/ 18/ 20/ 25/ 30/ 35/ 40	M3/M3	6.0
ISAB 4 B ...	8.0	15/ 20/ 25/ 30/ 35/ 40	M4/M4	6.0
ISAB 5 B ...	9.5	20/ 25/ 30/ 35/ 40	M5/M5	10.0
ISAB 6 B ...	12.7	25/ 30/ 35/ 40/ 45/ 50	M6/M6	12.7



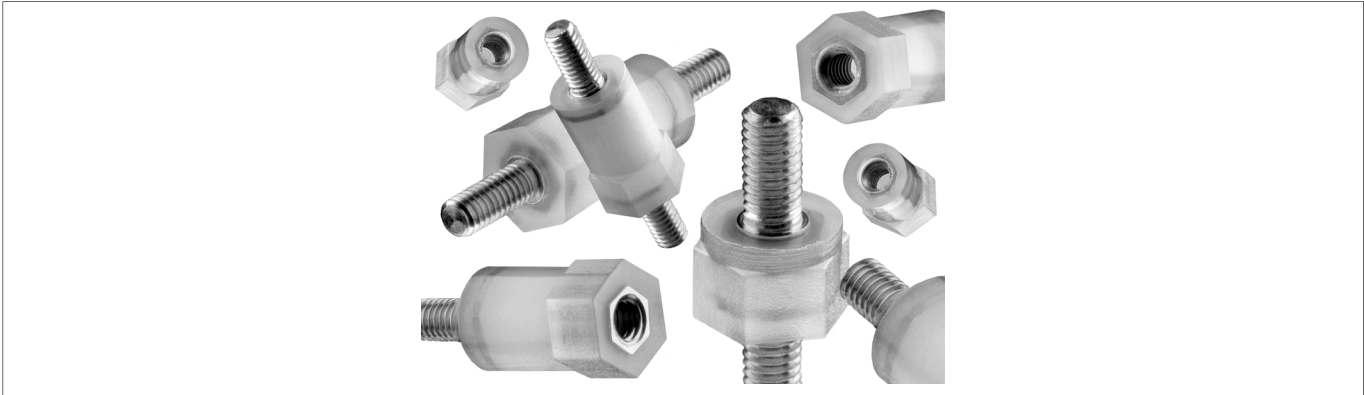
art. no.	A [mm]	dim. [mm]		
		L	D/D'	P/P'
ISAB 3 C ...	8.0	10/ 13/ 15/ 18/ 20/ 25	M3/M3	6.0
ISAB 4 C ...	8.0	15/ 20/ 25/ 30/ 35/ 40	M4/M4	6.0
ISAB 5 C ...	9.5	20	M5/M5	10.0
ISAB 6 C ...	12.0	25	M6/M6	12.0
ISAB 6 C ...	12.7	30/ 35/ 40/ 45/ 50	M6/M6	12.7

... Please indicate length "L"
other lengths on request

dimensions = nominal size: deviation ±0.5 mm; at ISAB 3 C ... L=10 => P/P'=3.5

dielectric strength	approx. 40 KV/mm
creeping current resistance	3c, level KA
thread inserts	brass
temper. range	-30 °C ... +85 °C (short term +200 °C)
surface treatment	raw
plastic body	polyamide 66
colour	natural (opaque)

Miniature spacers with threads



- allows compact, insulated constructions
- reduced volume in case of stack assembly
- insulated mounting of heatsinks, PCB, housingparts etc.
- very good mechanical stability due to brass inserts

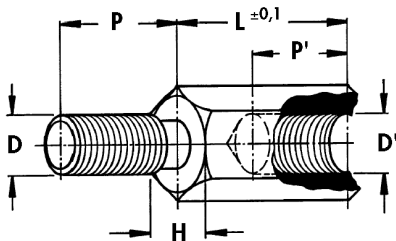
art. no.	dim. [mm]		
	S	L	G
ISAM 2 A ...	6	4/ 5/ 6/ 7/ 8/ 9/ 10/ 11/ 12	M 2.5
ISAM 3 A ...	7	4/ 5/ 6/ 7/ 8/ 9/ 10/ 11/ 12	M 3
art. no.	dim. [mm]		
	S	L	G
ISAM 2 B ...	6	7/ 8/ 9/ 10/ 11/ 12	M 2.5
ISAM 3 B ...	7	7/ 8/ 9/ 10/ 11/ 12	M 3
art. no.	dim. [mm]		
	S	L	G
ISAM 2 C ...	6	9/ 10/ 11/ 12	M 2.5
ISAM 3 C ...	7	9/ 10/ 11/ 12	M 3

... Please indicate length "L"
dimensions = nominal size: L ± 0.5 mm

dielectric strength	30 KV/mm
creeping current resistance	3c, level KA
thread inserts	brass
temper. range	-30 °C ... +85 °C (short term +200 °C)
surface treatment	raw
plastic body	polyamide 66
colour	natural (opaque)

Distance sleeves and spacers

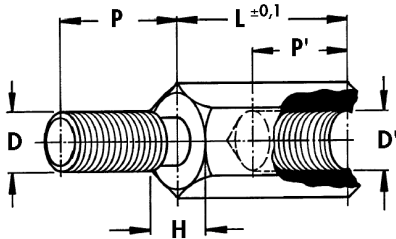
spacers with internal and external thread



art. no.	dim. [mm]				
	P'	P	L	D/D'	H
GBM 2550 ...	2.5	6	5	M 2.5	5
GBM 2550 ...	5.0	6	10	M 2.5	5
GBM 2550 ...	8.0	6	15/ 20	M 2.5	5
GBM 2550 ...	10.0	8	25/ 30/ 35/ 40/ 45/ 50	M 2.5	5
GBM 3050 ...	2.5	8	5	M 3	5
GBM 3050 ...	5.0	8	10/ 12/ 14	M 3	5
GBM 3050 ...	10.0	8	15/ 18/ 20	M 3	5
GBM 3050 ...	10.0	10	25/ 30/ 35/ 40/ 45/ 50	M 3	5
GBM 4070 ...	2.5	8	5	M 4	7
GBM 4070 ...	5.0	8	10	M 4	7
GBM 4070 ...	8.0	8	15	M 4	7
GBM 4070 ...	10.0	8	20	M 4	7
GBM 4070 ...	10.0	10	25/ 30/ 35/ 40/ 45/ 50	M 4	7
GBM 5080 ...	5.0	8	10	M 5	8
GBM 5080 ...	6.0	8	15/ 20	M 5	8
GBM 5080 ...	10.0	10	25/ 30/ 35/ 40/ 45/ 50	M 5	8

... Please indicate length "L"
other lengths and threads on request

material	brass
surface treatment	6 µm nickel-plated, solderable



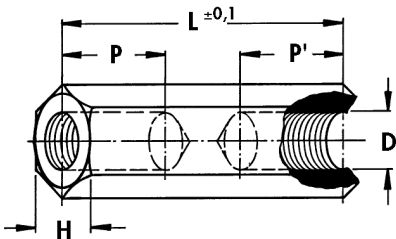
art. no.	dim. [mm]				
	P'	P	L	D/D'	H
GBP 3060 ...	7	8	10	M 3	6
GBP 3060 ...	8	8	12	M 3	6
GBP 3060 ...	10	8	15/ 18/ 20/ 25/ 30	M 3	6
GBP 4080 ...	7	8	10	M 4	8
GBP 4080 ...	9	8	12	M 4	8
GBP 4080 ...	10	8	15/ 18/ 20/ 25/ 30/ 35/ 40/ 45/ 50	M 4	8

... Please indicate length "L"
other lengths and threads on request

material	polyamide, GF reinforced
temper. range	-30 °C ... +110 °C
colour	black

Distance sleeves and spacers

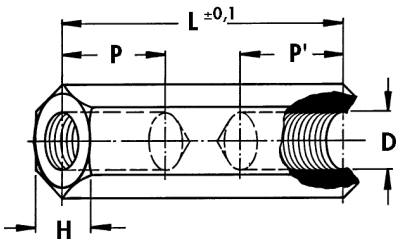
distance sleeves with internal thread



art. no.	dim. [mm]				
	P'	P	L	D/D'	H
ABM 2550 ...	–	=L	5/ 8/ 10/ 12/ 15	M 2.5	5
ABM 2550 ...	8	8	18	M 2.5	5
ABM 2550 ...	10	10	20/ 25/ 30/ 35/ 40/ 45/ 50	M 2.5	5
ABM 3050 ...	–	=L	5/ 8/ 9/ 10/ 12/ 13/ 15	M 3	5
ABM 3050 ...	8	8	16/ 18/ 19	M 3	5
ABM 3050 ...	10	10	20/ 25/ 29/ 30/ 35/ 40/ 45/ 50	M 3	5
ABM 4070 ...	–	=L	5/ 8/ 10/ 12/ 15	M 4	7
ABM 4070 ...	9	9	18	M 4	7
ABM 4070 ...	10	10	20/ 25/ 30/ 35/ 40/ 45/ 50	M 4	7
ABM 5080 ...	9	9	18	M 5	8
ABM 5080 ...	–	=L	5/ 8/ 10/ 12/ 15	M 5	8
ABM 5080 ...	10	10	20/ 25/ 30/ 35/ 40/ 45/ 50	M 5	8

... Please indicate length "L"
other lengths and threads on request

material	brass
surface treatment	6 µm nickel-plated, solderable



art. no.	dim. [mm]				
	P'	P	L	D/D'	H
ABP 2550 ...	–	=L	10	M 2.5	5
ABP 2550 ...	6	6	15/ 20/ 25/ 30	M 2.5	5
ABP 3060 ...	–	=L	10/ 12/ 15	M 3	6
ABP 3060 ...	8	8	20	M 3	6
ABP 3060 ...	10	10	25/ 30	M 3	6
ABP 4080 ...	–	=L	10/ 15/ 20	M 4	8
ABP 4080 ...	10	10	20	M 4	8

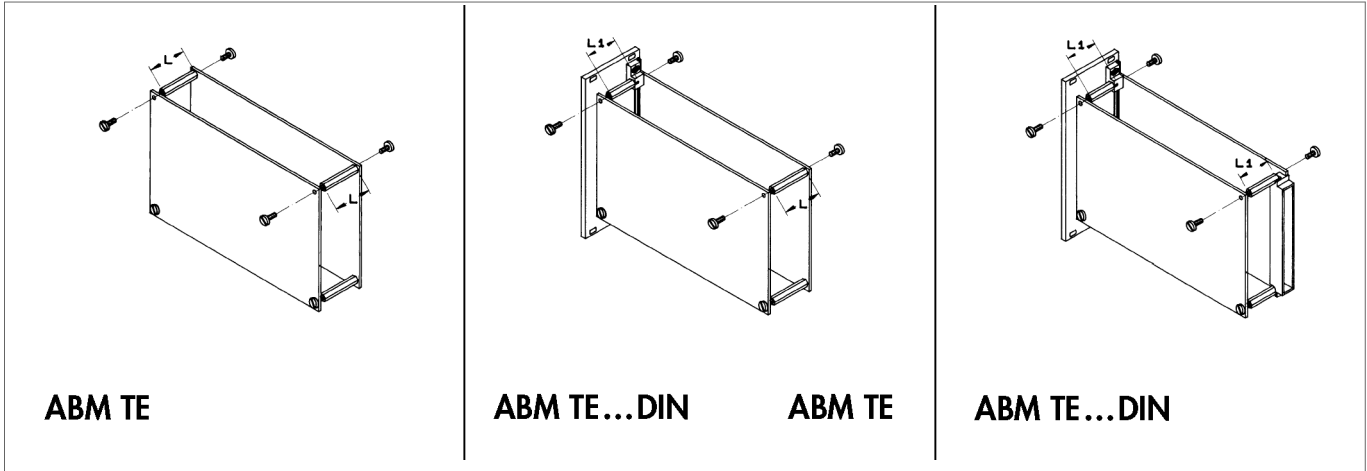
... Please indicate length "L"
other lengths and threads on request

material	polyamide, GF reinforced
temper. range	-30 °C ... +110 °C
colour	black

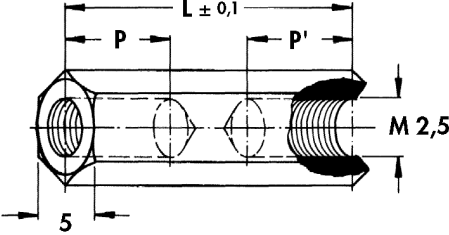
Distance sleeves and spacers

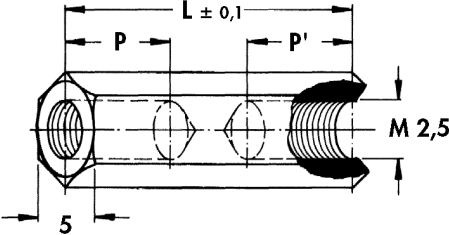
Distance sleeves for PCB in HP grid

These internally threaded distance sleeves mount PCBs to the correct pitch for insertion into subracks



ABM TE: spacer between two PC boards
ABM TE ... DIN: spacer between two PC boards, one of them equipped with DIN-connector resp. A front panel/PCB Interconnection device VS 1.

			
art. no.	suitable for TE	dim. [mm]	
		P	L
ABM TE 04	4	8	18.72
ABM TE 06	6	8	28.88
ABM TE 08	8	8	39.04

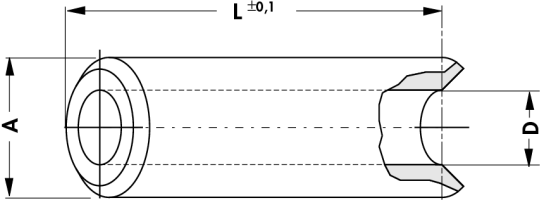
			
art. no.	suitable for TE	dim. [mm]	
		P	L
ABM TE 04 DIN	4	=L	12.72
ABM TE 06 DIN	6	8	22.88
ABM TE 08 DIN	8	8	33.04

spacers with internal and external thread to HP grid on request

material	brass
surface treatment	8 µm nickel-plated, solderable

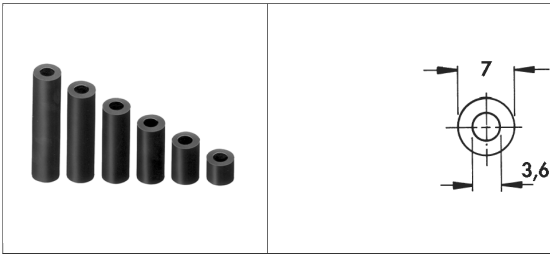
Distance sleeves and spacers

Spacers

			
art. no.	A [mm]	D	dim. [mm] L
AHM 3260...	6	3.2	1/ 2/ 3/ 4/ 5/ 6/ 7/ 8/ 9/ 10/ 12/ 15/ 18/ 25/ 30
AHM 4380...	8	4.3	1/ 2/ 3/ 4/ 5/ 6/ 7/ 8/ 9/ 10/ 12/ 15/ 18/ 25/ 30

... Please indicate length "L"
dimensions = nominal size: L ± 0.1 mm

material	brass
surface treatment	8 µm nickel-plated, solderable

			
art. no.	length [mm]	art. no.	length [mm]
DR 071 V0	1	DR 713 V0	13
DR 072 V0	2	DR 714 V0	14
DR 073 V0	3	DR 715 V0	15
DR 074 V0	4	DR 720 V0	20
DR 075 V0	5	DR 725 V0	25
DR 076 V0	6	DR 730 V0	30
DR 077 V0	7	DR 735 V0	35
DR 078 V0	8	DR 740 V0	40
DR 079 V0	9	DR 745 V0	45
DR 710 V0	10	DR 750 V0	50
DR 711 V0	11	DR 755 V0	55
DR 712 V0	12	DR 760 V0	60

special lengths on request

material	polyamide
heat distortion	180 °C
temper. range	+180 °C
colour	black
flammability	UL 94 V-0

Solder pins
Plugs
Miniature distance sleeves
Mounting parts for heatsinks

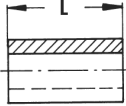
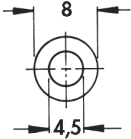
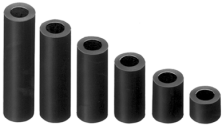
→ E 34
→ E 34
→ E 26
→ E 40 – 41

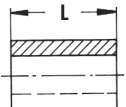
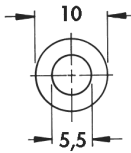
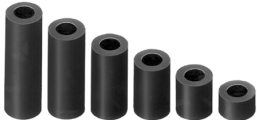
Heatsink profile-overview
Heatsinks for PCB
Special profiles
Clamp fixing for DIN-rail

→ A 13 - 16
→ A 89
→ A 136
→ E 16

Distance sleeves and spacers

Spacers

			
art. no.	length [mm]	art. no.	length [mm]
DR 081 V0	1	DR 813 V0	13
DR 082 V0	2	DR 814 V0	14
DR 083 V0	3	DR 815 V0	15
DR 084 V0	4	DR 820 V0	20
DR 085 V0	5	DR 825 V0	25
DR 086 V0	6	DR 830 V0	30
DR 087 V0	7	DR 835 V0	35
DR 088 V0	8	DR 840 V0	40
DR 089 V0	9	DR 845 V0	45
DR 810 V0	10	DR 850 V0	50
DR 811 V0	11	DR 855 V0	55
DR 812 V0	12	DR 860 V0	60

			
art. no.	length [mm]	art. no.	length [mm]
DR 105 V0	5	DR 135 V0	35
DR 110 V0	10	DR 140 V0	40
DR 115 V0	15	DR 145 V0	45
DR 120 V0	20	DR 150 V0	50
DR 125 V0	25	DR 155 V0	55
DR 130 V0	30	DR 160 V0	60

special lengths on request

material	polyamide
heat distortion	180 °C
temper. range	+180 °C
colour	black
flammability	UL 94 V-0