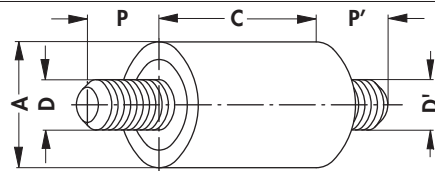




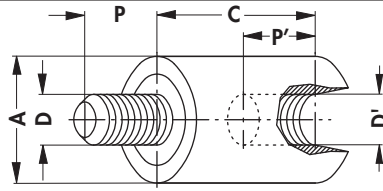
field of applications:

- insulated assembly of stacked PCB
- 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
- dimensions = nominal size: deviation ± 0.5 mm
- ... please indicate length "C"



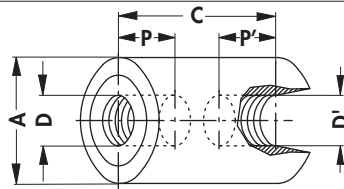
art. no.	dim. [mm]			
	A	C	D/D'	P/P'
ISAB 25 A ...	8.0	10/ 15/ 20/ 25	M2.5/M2.5	6.0
ISAB 3 A ...		10/ 20	M3/M3	
ISAB 4 A ...		15/ 20	M4/M4	
ISAB 6 A ...	12.7	25	M6/M6	12.7
creeping current resistance:	CTI 600			
thread inserts:	brass			
temperature range:	-30°C... +85°C (short term +200°C)			
surface:	raw			
plastic body:	polyamide 66			
colour:	natural (opaque)			
dielectric strength:	27 kV/mm			

Insulating spacers with internal and external thread



art. no.	dim. [mm]			
	A	C	D/D'	P/P'
ISAB 25 B ...	8.0	10/ 13/ 15/ 18/ 20/ 25/ 30	M2.5/M2.5	6.0
ISAB 3 B ...		10/ 13/ 15/ 18/ 20/ 25/ 30/ 35/ 40	M3/M3	
ISAB 4 B ...		15/ 20/ 25/ 30/ 40	M4/M4	
ISAB 5 B ...	9.5	20/ 30/ 40	M5/M5	10.0
ISAB 6 B ...	12.7	25/ 30/ 35/ 40/ 50	M6/M6	12.7

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



art. no.	dim. [mm]			
	A	C	D/D'	P/P'
ISAB 25 C ...	8.0	10/ 13/ 15/ 18/ 20/ 25/ 30	M2.5/M2.5	6.0
ISAB 3 C ...		10/ 13/ 15/ 18/ 20	M3/M3	
ISAB 4 C ...		15/ 35	M4/M4	
ISAB 5 C ...	9.5	20	M5/M5	10.0
ISAB 6 C ...	12.7	25	M6/M6	12.0
ISAB 6 C ...		30		12.7

creeping current resistance:	CTI 600
thread inserts:	brass
temperature range:	-30°C... +85°C (short term +200°C)
surface:	raw
plastic body:	polyamide 66
colour:	natural (opaque)
dielectric strength:	27 kV/mm



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
- dimensions = nominal size: deviation ± 0.5 mm
- ... please indicate length "C"

art. no.	dim. [mm]		
	A	C	D/D'
ISAM 2 A ...	6	4/ 5/ 7/ 9/ 11/ 12	M2.5/M2.5
ISAM 3 A ...	7	4/ 5/ 7/ 8/ 9/ 10	M3/M3
art. no.	dim. [mm]		
	A	C	D/D'
ISAM 2 B ...	6	8/ 9/ 10/ 11	M2.5/M2.5
ISAM 3 B ...	7	7/ 8/ 9/ 10/ 11/ 12	M3/M3
art. no.	dim. [mm]		
	A	C	D/D'
ISAM 2 C ...	6	9	M2.5/M2.5
ISAM 3 C ...	7	9/ 10/ 12	M3/M3
creeping current resistance:	CTI 600		
thread inserts:	brass		
temperature range:	-30°C... +85°C (short term +200°C)		
surface:	raw		
plastic body:	polyamide 6		
colour:	natural (opaque)		
dielectric strength:	28 kV/mm		

A

Distance hexagonal bolts insulating

B

C

D

E

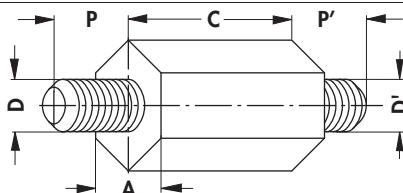


F

field of applications:

- 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
- dimensions = nominal size: deviation ± 0.5 mm
- ... please indicate length "C"

G



H

art. no.	dim. [mm]			
	A	C	D/D'	P/P'
ISAS 25 A ...	6.35	15/ 20/ 25/ 30/ 35/ 40	M2.5/M2.5	6.0
ISAS 30 A ...		15/ 20/ 25/ 30/ 35/ 40/ 45/ 50	M3/M3	
ISAS 40 A ...	M4/M4			
ISAS 50 A ...	9.50	20/ 25/ 30/ 35/ 40/ 45/ 50	M5/M5	10.0
ISAS 60 A ...	12.70	25/ 30/ 35/ 40/ 45/ 50/ 60	M6/M6	12.7
creeping current resistance:	CTI 600			
thread inserts:	brass			
temperature range:	-30°C... +85°C (short term +200°C)			
surface:	raw			
plastic body:	polyamide 66			
colour:	natural (opaque)			
dielectric strength:	27 kV/mm			

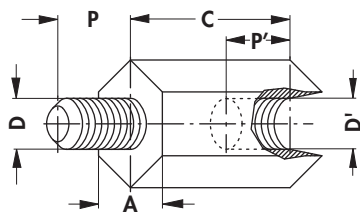
K

L

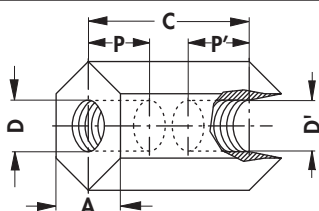
M

N



Distance hexagonal bolts insulating


art. no.	dim. [mm]			
	A	C	D/D'	P/P'
ISAS 25 B ...	6.35	15/ 20/ 25/ 30/ 35/ 40	M2.5/M2.5	6.0
ISAS 30 B ...		15/ 20/ 25/ 30/ 35/ 40/ 45/ 50	M3/M3	
ISAS 40 B ...	8.00		M4/M4	
ISAS 50 B ...	9.50	20/ 25/ 30/ 35/ 40/ 45/ 50	M5/M5	10.0
ISAS 60 B 25	12.70	25	M6/M6	11.5
ISAS 60 B ...		30/ 35/ 40/ 45/ 50/ 60		12.7

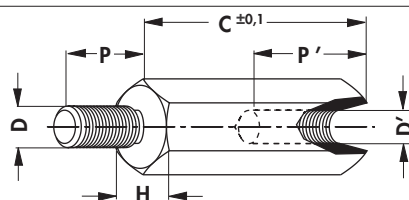


art. no.	dim. [mm]			
	A	C	D/D'	P/P'
ISAS 25 C ...	6.35	15/ 20/ 25/ 30/ 35/ 40	M2.5/M2.5	6.0
ISAS 30 C ...		15/ 20/ 25/ 30/ 35/ 40/ 45/ 50	M3/M3	
ISAS 40 C ...	8.00		M4/M4	
ISAS 50 C ...	9.50	20/ 25/ 30/ 35/ 40/ 45/ 50	M5/M5	10.0
ISAS 60 C 25	12.70	25	M6/M6	11.5
ISAS 60 C ...		30/ 35/ 40/ 45/ 50/ 60		12.7

creeping current resistance:	CTI 600
thread inserts:	brass
temperature range:	-30°C... +85°C (short term +200°C)
surface:	raw
plastic body:	polyamide 66
colour:	natural (opaque)
dielectric strength:	27 kV/mm

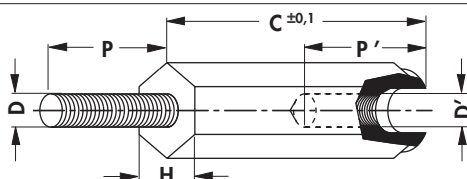
Spacers with internal and external thread

- other lengths and threads on request
- ... please indicate length "C"



art. no.	dim. [mm]				
	H	C	D/D'	P	P'
GBM 2550 ...	5	5	M2.5	6	2.5
GBM 2550 ...		10			5.0
GBM 2550 ...		15/ 20			8.0
GBM 2550 ...		25/ 30/ 35	M3	8	10.0
GBM 3050 ...		5			2.5
GBM 3050 ...		10/ 12			5.0
GBM 3050 ...		14/ 15/ 18/ 20	M4	10	10.0
GBM 3050 ...		25/ 30/ 35/ 40/ 45/ 50			
GBM 4070 ...		5			2.5
GBM 4070 ...	10	M5	8	5.0	
GBM 4070 ...	15			8.0	
GBM 4070 ...	20			10.0	
GBM 4070 ...	25/ 30/ 35/ 40/ 45/ 50				
GBM 5080 ...	8	10	M5	10	5.0
GBM 5080 ...		15/ 20			6.0
GBM 5080 ...		25/ 30/ 35/ 40/ 45/ 50			10.0
material:	brass				
surface:	6 µm nickel-plated, solderable				

- other lengths and threads on request
- ... please indicate length "C"

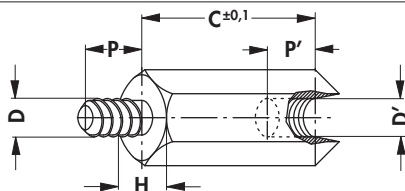


art. no.	dim. [mm]				
	H	C	D/D'	P	P'
GBP 3060 ...	6	10	M3	8	8
GBP 3060 ...		12/ 15/ 18/ 20/ 25/ 30			10
GBP 4080 ...	8	10	M4	10	8
GBP 4080 ...		12/ 15/ 18/ 20/ 25/ 30/ 35/ 40/ 45			10
material:	polyamide, GF reinforced				
temperature range:	-30°C... +110°C				
colour:	black				



Spacers with internal and external thread

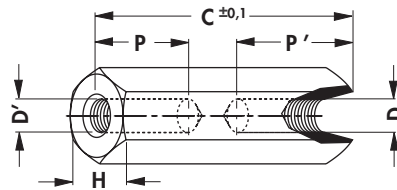
- with self-cutting external thread
- external thread with undercut according to DIN 76-B
- different lengths, materials and types of thread upon request
- ... **please indicate length "C"**



art. no.	dim. [mm]				
	H	C	D/D'	P	P'
GBMS 2550 ...	5.0	8	ST2,2/M2,5	5	5
GBMS 2550 ...		10			6
GBMS 2550 ...		12			7
GBMS 2550 ...		15/ 20			10
GBMS 3055 29 ...	5.5	8	ST2,9/M3	6	5
GBMS 3055 29 ...		10			6
GBMS 3055 29 ...		12			7
GBMS 3055 29 ...		15/ 20			10
GBMS 3055 33 ...	6.0	8	ST3,3/M3	7	5
GBMS 3055 33 ...		10			6
GBMS 3055 33 ...		12			7
GBMS 3055 33 ...		15/ 20			10
GBMS 3060 ...	7.0	8	ST3,5/M3	8	5
GBMS 3060 ...		10			6
GBMS 3060 ...		12			7
GBMS 3060 ...		15/ 20			10
GBMS 4070 ...	8.0	8	ST4,2/M4	8	5
GBMS 4070 ...		10			6
GBMS 4070 ...		12			7
GBMS 4070 ...		15/ 20			10
GBMS 5080 ...	10.0	8	ST4,8/M5	10	5
GBMS 5080 ...		10			6
GBMS 5080 ...		12			7
GBMS 5080 ...		15/ 20			10
GBMS 6010 ...	10.0	10	ST6,3/M6	10	6
GBMS 6010 ...		12			7
GBMS 6010 ...		15/ 20			10
material:		brass			
surface:		8 μm nickel-plated, solderable			

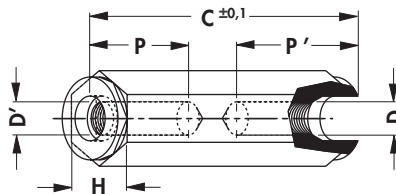
Distance sleeves with internal thread

- other lengths and threads on request
- ... please indicate length "C"



art. no.	dim. [mm]				
	H	C	D/D'	P	P'
ABM 2550 ...	5	5/ 8/ 10/ 12/ 15	M2.5	=C	—
ABM 2550 ...		18		8	8
ABM 2550 ...		20/ 25/ 30/ 35/ 40/ 45/ 50		10	10
ABM 3050 ...	7	5/ 8/ 9/ 10/ 12/ 13/ 15	M3	=C	—
ABM 3050 ...		16/ 18/ 19		8	8
ABM 3050 ...		20/ 25/ 29/ 30/ 35/ 40/ 45/ 50		10	10
ABM 4070 ...	8	5/ 8/ 10/ 12/ 15	M4	=C	—
ABM 4070 ...		18		9	9
ABM 4070 ...		20/ 25/ 30/ 35/ 40/ 45/ 50		10	10
ABM 5080 ...	8	5/ 12	M5	=C	—
ABM 5080 ...		20/ 30/ 40/ 50		10	10
material:		brass			
surface:		6 μm nickel-plated, solderable			

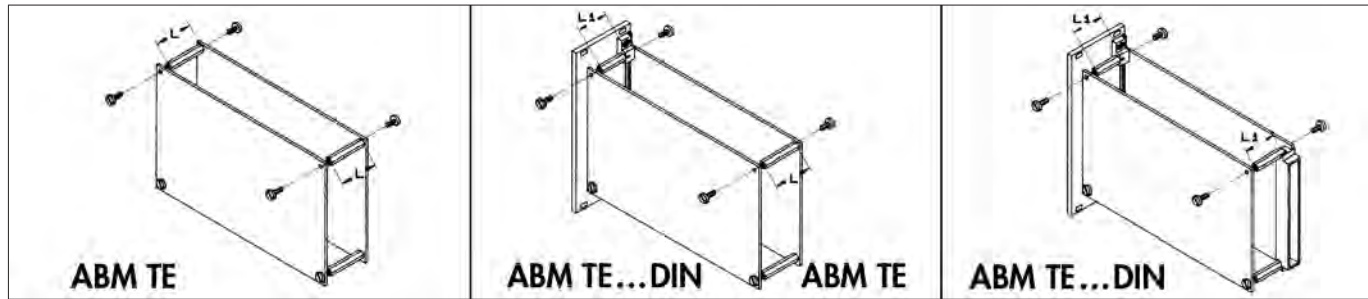
- other lengths and threads on request
- ... please indicate length "C"



art. no.	dim. [mm]				
	H	C	D/D'	P	P'
ABP 2550 ...	5	10	M2.5	=C	—
ABP 2550 ...		15/ 20/ 25/ 30		6	6
ABP 3060 ...	6	10/ 12/ 15	M3	=C	—
ABP 3060 ...		20		8	8
ABP 3060 ...		25/ 30		10	10
ABP 4080 ...	8	10/ 15/ 20	M4	=C	—
ABP 4080 ...		30/ 40		10	10
material:		polyamide, GF reinforced			
temperature range:		-30°C... +110°C			
colour:		black			



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
- spacers with internal and external thread to HP grid on request

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

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

material:	brass		
surface:	8 μm nickel-plated, solderable		


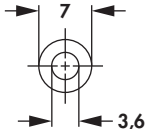
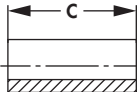

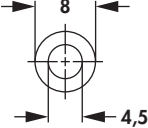
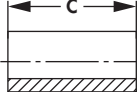

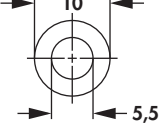

- ... please indicate length "C"

art. no.	dim. [mm]		C
	A	D	
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	2/ 3/ 4/ 5/ 6/ 7/ 8/ 9/ 10/ 12/ 15/ 18/ 20

material:	brass		
surface:	8 μm nickel-plated, solderable		

Spacers

– special lengths on request

					
art. no.	dim. [mm]	art. no.	dim. [mm]	art. no.	dim. [mm]
	C		C		C
DR 071 V0	1	DR 079 V0	9	DR 725 V0	25
DR 072 V0	2	DR 710 V0	10	DR 730 V0	30
DR 073 V0	3	DR 711 V0	11	DR 735 V0	35
DR 074 V0	4	DR 712 V0	12	DR 740 V0	40
DR 075 V0	5	DR 713 V0	13	DR 745 V0	45
DR 076 V0	6	DR 714 V0	14	DR 750 V0	50
DR 077 V0	7	DR 715 V0	15	DR 760 V0	60
DR 078 V0	8	DR 720 V0	20		
					
art. no.	dim. [mm]	art. no.	dim. [mm]	art. no.	dim. [mm]
	C		C		C
DR 081 V0	1	DR 089 V0	9	DR 825 V0	25
DR 082 V0	2	DR 810 V0	10	DR 830 V0	30
DR 083 V0	3	DR 811 V0	11	DR 835 V0	35
DR 084 V0	4	DR 812 V0	12	DR 840 V0	40
DR 085 V0	5	DR 813 V0	13	DR 845 V0	45
DR 086 V0	6	DR 814 V0	14	DR 850 V0	50
DR 087 V0	7	DR 815 V0	15	DR 860 V0	60
DR 088 V0	8	DR 820 V0	20		
					
art. no.	dim. [mm]	art. no.	dim. [mm]	art. no.	dim. [mm]
	C		C		C
DR 105 V0	5	DR 125 V0	25	DR 145 V0	45
DR 110 V0	10	DR 130 V0	30	DR 150 V0	50
DR 115 V0	15	DR 135 V0	35		
DR 120 V0	20	DR 140 V0	40		
material:	polyamide				
heat distortion:	180°C				
temperature range:	+180°C				
colour:	black				
class of inflammability:	UL 94 V-0				