



## Ferrites and Accessories

**Series/Type:**        **RM 4**

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B65803A0000R026	B65803A0000R048	2002-08-02	2002-12-31	2003-03-31

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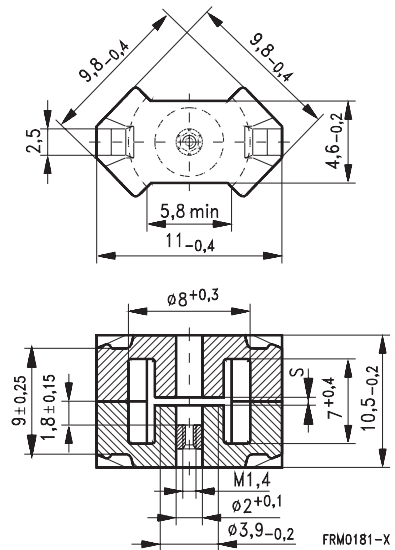
- In accordance with IEC 60431
- Core without center hole for transformer applications
- RM cores are supplied in sets

**Magnetic characteristics (per set)**

	with center hole	without center hole	
$\Sigma l/A$	1,9	1,7	mm <sup>-1</sup>
$l_e$	21	22	mm
$A_e$	11	13	mm <sup>2</sup>
$A_{min}$	—	11,3	mm <sup>2</sup>
$V_e$	232	286	mm <sup>3</sup>

**Approx. weight (per set)**

$m$	1,45	1,65	g


**Gapped**

Material	$A_L$ value	$s$ approx. mm	$\mu_e$	Ordering code 1) -A with center hole -N with threaded sleeve
	nH			
K1	16 ± 3 %	1,0	24,2	B65803-+16-A1
	25 ± 3 %	0,40	37,8	B65803-+25-A1
M33	40 ± 3 %	0,36	60,4	B65803-+40-A33
	63 ± 3 %	0,18	95	B65803-+63-A33
N48	63 ± 3 %	0,16	95	B65803-+63-A48
	100 ± 3 %	0,10	151	B65803-+100-A48
	160 ± 3 %	0,06	242	B65803-+160-A48

1) Replace the + by the code letter "A" or "N" for the required version.

**Ungapped**

Material	$A_L$ value nH	$\mu_e$	$A_{L1min}$ nH	$P_V$ W/set	Ordering code -J w/o center hole
N30	1900 + 30/- 20 %	2570			B65803-J-R30
T35	2800 + 40/- 30 %	3790			B65803-J-Y35
T38	3700 + 40/- 30 %	5000			B65803-J-Y38
T57 <sup>1)</sup>	1600 + 30/- 20 %	2200			B65803-J-R57
N49	750 + 30/- 20 %	1010	450	< 0,04 (50 mT, 500 kHz, 100 °C)	B65803-J-R49
N87	1100 + 30/- 20 %	1480	650	< 0,20 (200 mT, 100 kHz, 100 °C)	B65803-J-R87
N97 <sup>1)</sup>	1100 + 30/- 20 %	1480	650	< 0,15 (200 mT, 100 kHz, 100 °C)	B65803-J-R97

1) Preliminary data

**Coil former**

Material: GFR thermosetting plastic (UL 94 V-0, insulation class to IEC 60085:  
H  $\geq$  max. operating temperature 180 °C), color code blue

Solderability: to IEC 60068-2-20, test Ta, method 1 (aging 3): 235 °C, 2 s

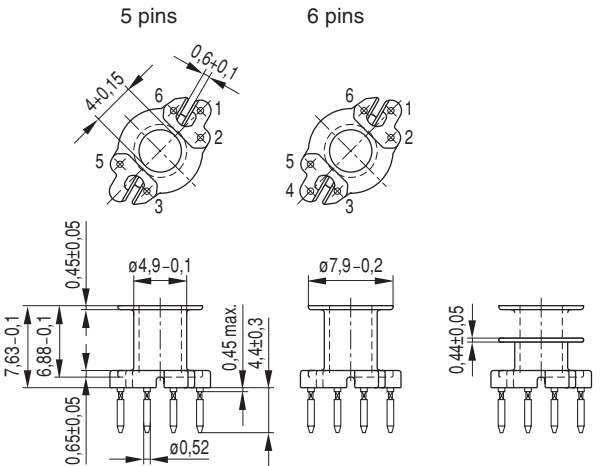
Resistance to soldering heat: to IEC 60068-2-20, test Tb, method 1B: 350 °C, 3,5 s

Winding: see "Processing Notes", page 153

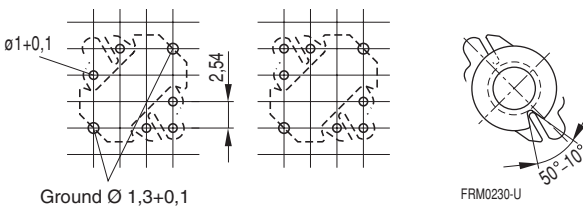
Pins squared in the start-of-winding area

For matching clamp and insulating washers see page 187

Sections	$A_N$ mm <sup>2</sup>	$l_N$ mm	$A_R$ value $\mu\Omega$	Pins	Ordering code
1	7,7	20	89	5 6	B65804-K1005-D1 B65804-K1006-D1
2	7,3	20	94	5 6	B65804-K1005-D2 B65804-K1006-D2



Hole arrangement  
View in mounting direction



Ground  $\varnothing$  1,3±0,1

FRM0230-U

RM 4	B65804
Accessories	B65806

### Clamp

- With ground terminal, made of stainless spring steel (tinned), 0,335 mm thick
- Solderability to IEC 60068-2-20, test Ta, method 1 (aging 3): 235 °C, 2 s
- Also available as strip clamp on reels

### Insulating washer 1 between core and coil former

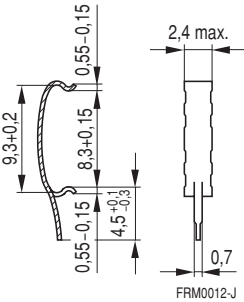
- For tolerance compensation and for insulation
- Made of polycarbonate (UL 94 V-0, insulation class to IEC 60085: E  $\geq$  120 °C), 0,06 mm thick

### Insulating washer 2 for double-clad PCBs

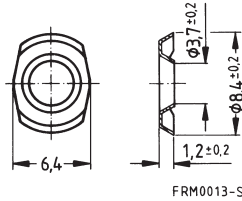
- Made of polycarbonate (UL 94 V-0, insulation class to IEC 60085: E  $\geq$  120 °C), 0,3 mm thick

	Ordering code
Clamp (ordering code per piece, 2 are required)	B65806-A2203
Insulating washer 1 (reel packing, PU = 1 reel)	B65804-A5000
Insulating washer 2 (bulk)	B65804-C2005

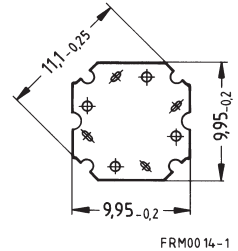
### Clamp



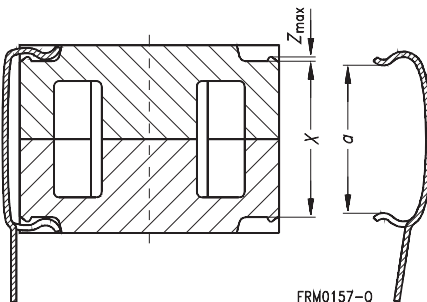
### Insulating washer 1



### Insulating washer 2



### Clamping forces for RM 4



$F_{min}$ : Extension of clamp from  $a$  to  $a_2 = X_{min}$   
 $F_{max}$ : Extension of clamp from  $a$  to  $a_1 = X_{max}$

Clamp opening $a$ (mm)	8,3 + 0,15
Core nose $Z_{max}$ (mm)	0,15
Height of core pair $X$ (mm)	$X_{min}$ 8,75 $X_{max}$ 9,25
Clamping force $F$ (N)	$F_{min}$ 5 $F_{max}$ 40

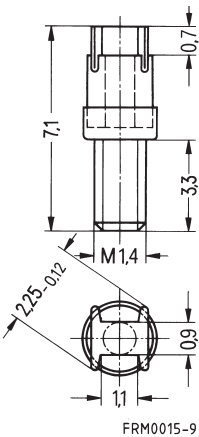
<b>RM 4</b>	<b>B65539</b>
<b>Accessories</b>	<b>B63399</b>

### Adjusting screw

- Tube core with thread and core brake made of GFR polyterephthalate
- Plastic **adjusting screwdriver** (not shown)
- Plastic **handle** for adjusting screwdriver (not shown)

Core RM 4		Adjusting screw			Min. adjusting range %	Ordering code
Material	A <sub>L</sub> value nH	Tube core Ø × length mm	Material	Color code		
K 1	16	1,81 × 2,0	Si 1	black	20	B65539-C1003-X101
	25	1,81 × 2,0	K 1	yellow	21	B65539-C1003-X1
M 33	40	1,81 × 2,0	Si 1	black	17	B65539-C1003-X101
	63	1,81 × 2,0	K 1	yellow	21	B65539-C1003-X1
N 48	63	1,81 × 2,0	Si 1	black	12	B65539-C1003-X101
	100	1,81 × 2,0	K 1	yellow	17	B65539-C1003-X1
	160	1,81 × 2,7	N 22	red	12	B65539-C1002-X22
<b>Adjusting screwdriver</b>						B63399-B4
<b>Handle</b>						B63399-B5

### Adjusting screw



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