

# DATA SHEET

## **RM8**

**RM, RM/I, RM/ILP cores and accessories**

Supersedes data of September 2004

2008 Sep 01

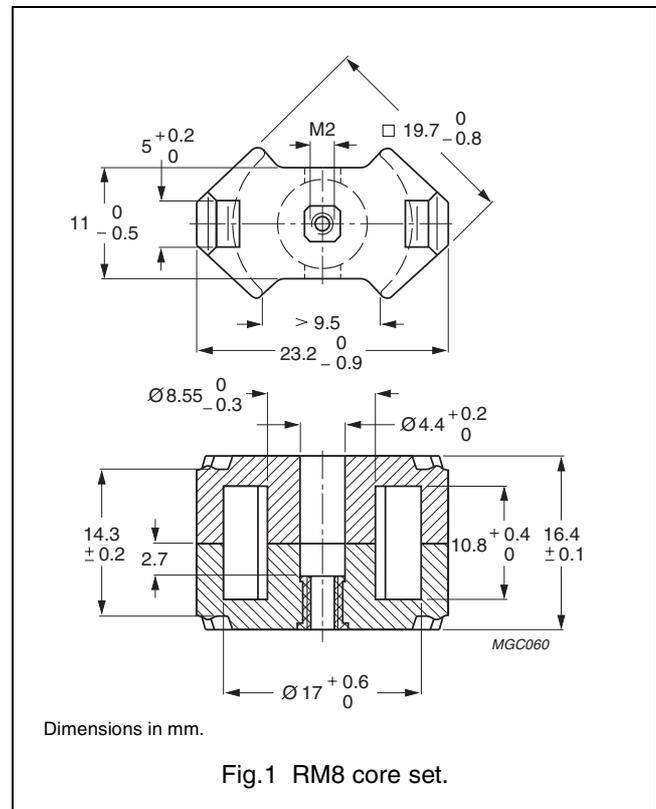


**FERROXCUBE**  
A YAGEO COMPANY

**CORE SETS**

**Effective core parameters**

SYMBOL	PARAMETER	VALUE	UNIT
$\Sigma(l/A)$	core factor (C1)	0.683	mm <sup>-1</sup>
$V_e$	effective volume	1850	mm <sup>3</sup>
$l_e$	effective length	35.5	mm
$A_e$	effective area	52.0	mm <sup>2</sup>
$A_{min}$	minimum area	39.5	mm <sup>2</sup>
m	mass of set	≈ 11	g



**Core sets for filter applications**

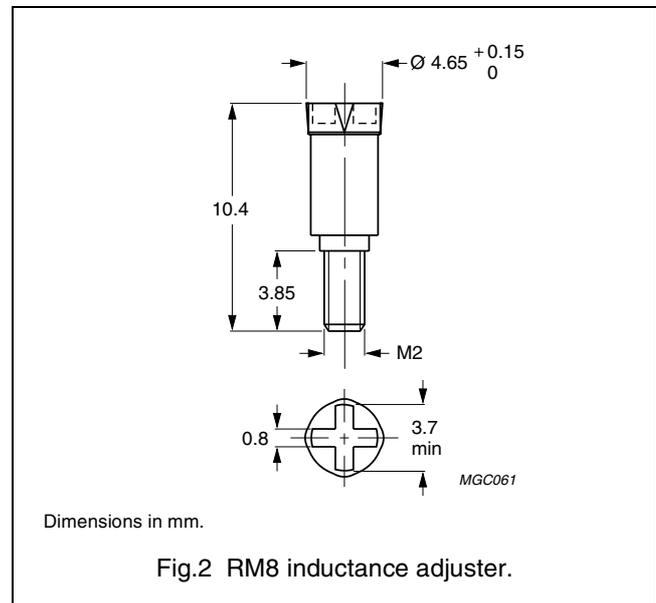
Clamping force for  $A_L$  measurements, 60 ±30 N.

GRADE	$A_L$ (nH)	$\mu_e$	TOTAL AIR GAP ( $\mu$ m)	TYPE NUMBER (WITH NUT)	TYPE NUMBER (WITHOUT NUT)
3D3 <sup>sup</sup>	100 ±3%	≈ 54	≈ 840	RM8-3D3-E100/N	RM8-3D3-E100
	160 ±3%	≈ 87	≈ 450	RM8-3D3-E160/N	RM8-3D3-E160
	1240 ±25%	≈ 675	≈ 0	–	RM8-3D3
3H3 <sup>sup</sup>	250 ±3%	≈ 136	≈ 290	RM8-3H3-A250/N	RM8-3H3-A250
	315 ±3%	≈ 171	≈ 220	RM8-3H3-A315/N	RM8-3H3-A315
	400 ±3%	≈ 217	≈ 160	RM8-3H3-A400/N	RM8-3H3-A400
	630 ±5%	≈ 342	≈ 90	RM8-3H3-A630/N	RM8-3H3-A630
	2850 ±25%	≈ 1550	≈ 0	–	RM8-3H3

**INDUCTANCE ADJUSTERS**

**General data**

PARAMETER	SPECIFICATION
Material of head and thread	polypropylene (PP), glass fibre reinforced
Maximum operating temperature	125 °C



**Inductance adjuster selection chart <sup>sup</sup> (applies to all types)**

GRADE	A <sub>L</sub> (nH)	TYPES FOR LOW ADJUSTMENT	ΔL/L % <sup>(1)</sup>	TYPES FOR MEDIUM ADJUSTMENT	ΔL/L % <sup>(1)</sup>	TYPES FOR HIGH ADJUSTMENT	ΔL/L % <sup>(1)</sup>
3H3	63	–	–	–	–	ADJ-P22/RM8-RED	24
	100	–	–	ADJ-P22/RM8-RED	16	ADJ-P22/RM8-ORANGE	21
	160	–	–	ADJ-P22/RM8-ORANGE	14	ADJ-P22/RM8-WHITE	22
	250	ADJ-P22/RM8-RED	7	ADJ-P22/RM8-ORANGE	10	ADJ-P22/RM8-WHITE	18
	315	ADJ-P22/RM8-ORANGE	7	ADJ-P22/RM8-WHITE	13	ADJ-P22/RM8-BROWN	21
	400	ADJ-P22/RM8-ORANGE	5	ADJ-P22/RM8-WHITE	10	ADJ-P22/RM8-BROWN	15
	630	ADJ-P22/RM8-WHITE	6	ADJ-P22/RM8-BROWN	8	ADJ-P22/RM8-BLACK	13
3D3	63	–	–	–	–	ADJ-P22/RM8-RED	23
	100	–	–	ADJ-P22/RM8-RED	15	ADJ-P22/RM8-ORANGE	22
	160	–	–	ADJ-P22/RM8-ORANGE	14	ADJ-P22/RM8-WHITE	22

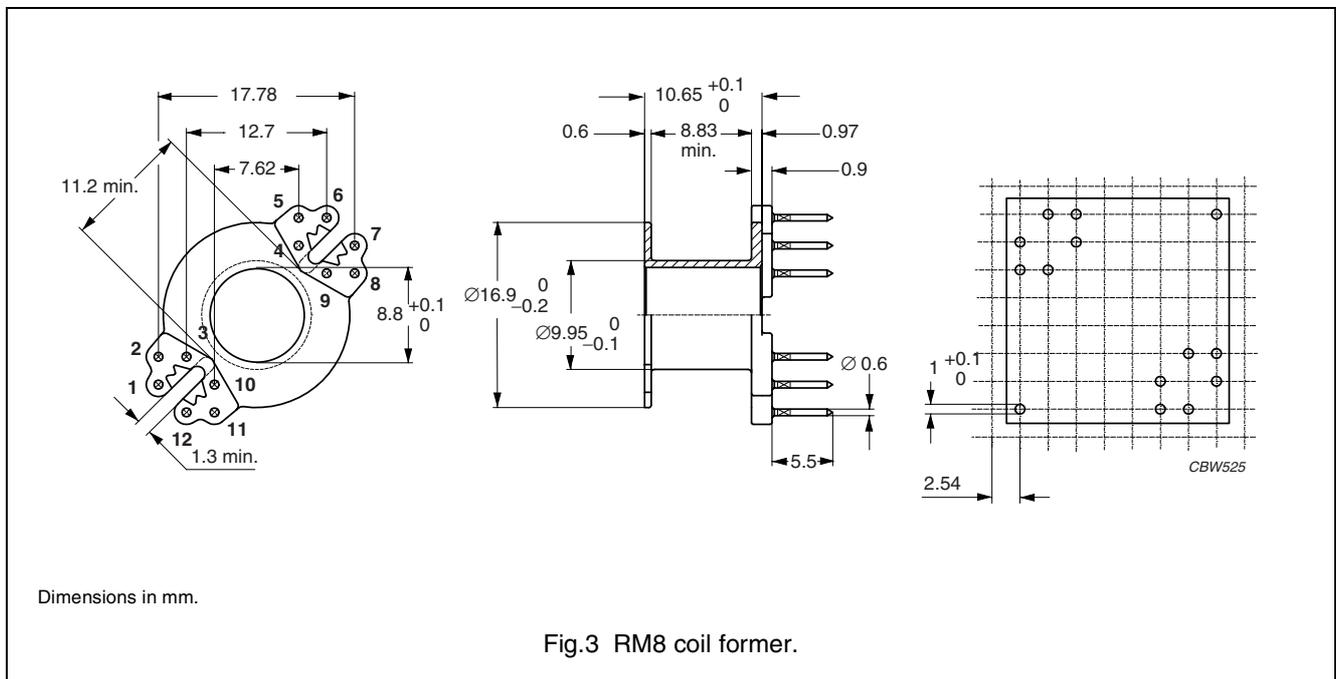
**Note**

1. Maximum adjustment range.

**COIL FORMER**

**General data**

PARAMETER	SPECIFICATION
Coil former material	unsaturated polyester (UP), glass-reinforced, flame retardant in accordance with UL 94V-0; UL file number E61040 (M)
Pin material	copper-tin alloy (CuSn), tin (Sn) plated
Maximum operating temperature	180 °C, "IEC 60085", class H
Resistance to soldering heat	"IEC 60068-2-20", Part 2, Test Tb, method 1B, 350 °C, 3.5 s
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1



**Winding data and area product for RM8 coil former**

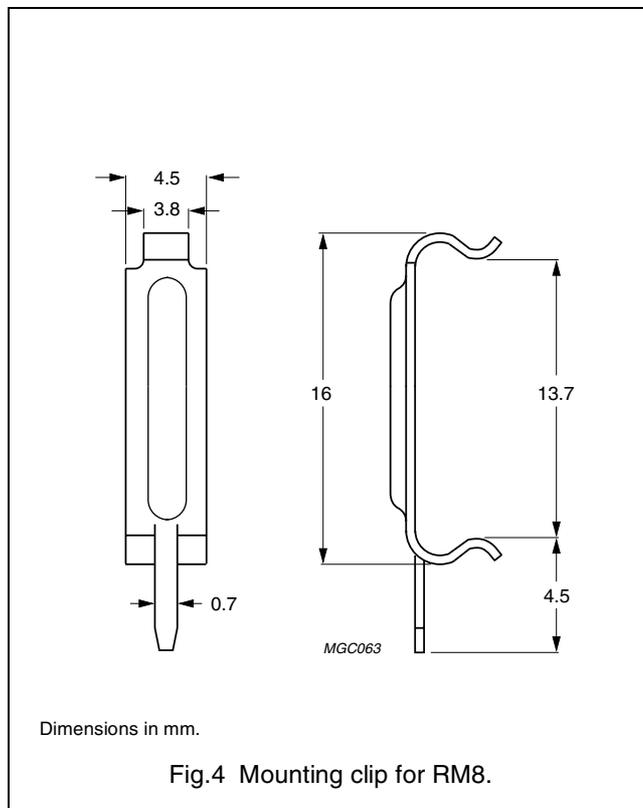
NUMBER OF SECTIONS	NUMBER OF PINS	PIN POSITIONS USED	AVERAGE LENGTH OF TURN (mm)	WINDING AREA (mm <sup>2</sup> )	WINDING WIDTH (mm)	AREA PRODUCT Ae x Aw (mm <sup>4</sup> )	TYPE NUMBER
1	8	1, 2, 5, 6, 7, 8, 11, 12	42	30	9.1	1560	CSV-RM8-1S-8P-G <sup>(1)</sup>
1	12	all	42	30	9.1	1560	CSV-RM8-1S-12P-G <sup>(1)</sup>
2	8	1, 2, 5, 6, 7, 8, 11, 12	42	2 x 13.5	2 x 4.3	2 x 702	CSV-RM8-2S-8P
2	12	all	42	2 x 13.5	2 x 4.3	2 x 702	CSV-RM8-2S-12P-G
1	4	3, 4, 9, 10	42	30	9.1	1560	CSV-RM8-1S-4P
1	5	1, 2, 5, 8, 11	42	30	9.1	1560	CSV-RM8-1S-5P
2	5	1, 2, 5, 8, 11	42	2 x 13.5	2 x 4.3	2 x 702	CSV-RM8-2S-5P

**Note 1.** Also available with post-inserted pins.

**MOUNTING PARTS**

**General data**

ITEM	SPECIFICATION
Clamping force	≈30 N
Clip material	steel
Clip plating	silver (Ag)
Solderability	"IEC 60068-2-20", Part 2, Test Ta, method 1
Type number	CLI/P-RM8



**DATA SHEET STATUS DEFINITIONS**

DATA SHEET STATUS	PRODUCT STATUS	DEFINITIONS
Preliminary specification	Development	This data sheet contains preliminary data. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.
Product specification	Production	This data sheet contains final specifications. Ferroxcube reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.

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**PRODUCT STATUS DEFINITIONS**

STATUS	INDICATION	DEFINITION
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<b>Design-in</b>		These products are recommended for new designs.
<b>Preferred</b>		These products are recommended for use in current designs and are available via our sales channels.
<b>Support</b>		These products are <b>not</b> recommended for new designs and may not be available through all of our sales channels. Customers are advised to check for availability.