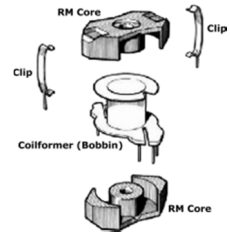


RM (Rectangular modular) cores arose due to the demand for coil formers with integrated pins that allow for efficient winding and high PCB packing densities. Clamps engaging in recesses in the core base hold the cores in place, meaning glue is not normally required in this process.

Typical applications are Switch Mode Power Supplies (SMPS), Current Transformers, Pulse Transformers, Energy Storage Chokes and fly-backs.

RM cores are unique in that their designation i.e. RM10 refers to the PCB grid that the core with Bobbin and Clip with fill. An RM10 will fill a square basic area of 10x10 grid layout 25.4x25.4mm<sup>2</sup>



RM cores are normally supplied with a solid spigot. Adjustable Inductor versions are also available.

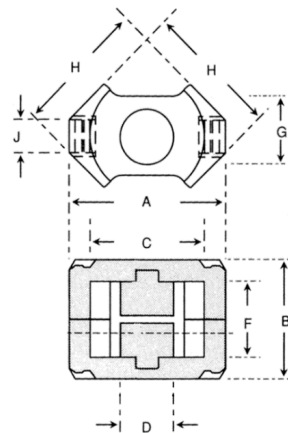
Soft Ferrite Cores – RM 4 (Solid)

Effective Geometric Parameters

Parameter	Symbol	Value	Unit
$\Sigma(\ell/A)$	$C_1$	1.7	mm <sup>-1</sup>
effective magnetic path length	$\ell_e$	22.00	mm
effective area of magnetic path	$A_e$	13.00	mm <sup>2</sup>
minimum area of magnetic path	$A_{min}$	11.30	mm <sup>2</sup>
effective volume	$V_e$	286	mm <sup>3</sup>

Dimensions

Symbol	Value (mm)
A	10.60-11.00
B	10.30-10.50
C	7.95-8.35
D	3.70-3.90
F	7.00-7.40
G	4.40-4.60
H	9.50-9.80
J	2.50-2.70



Electrical Specifications

Grade	$A_L$	Tolerance on $A_L$ (%)	Gap Length (mm)	Effective Permeability	Part No
F10	2800	+30/-20	-	≈3788	29-920-37

Soft Ferrite Cores – RM 5 (Solid)

Low distortion broadband transmission at low signal modulation (F10, F39).

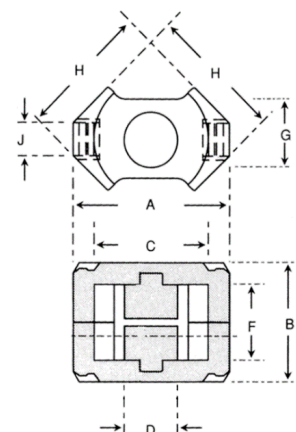
RM cores can also be supplied without the centre hole. These have a higher  $A_L$  value and cross sectional area and are used for power transformer applications (F44, F5C).

Effective Geometric Parameters

Parameter	Symbol	Value	Unit
$\Sigma(\ell/A)$	$C_1$	0.93	mm <sup>-1</sup>
effective magnetic path length	$\ell_e$	22.10	mm
effective area of magnetic path	$A_e$	23.80	mm <sup>2</sup>
minimum area of magnetic path	$A_{min}$	18.00	mm <sup>2</sup>
effective volume	$V_e$	526	mm <sup>3</sup>

Dimensions

Symbol	Value (mm)
A	14.00-14.60
B	10.30-10.50
C	10.20-10.60
D	4.70-4.90
F	6.30-6.70
G	6.40-6.80
H	11.80-12.30
J	2.50-2.70



Electrical Specifications

Grade	$A_L$	Tolerance on $A_L$ (%)	Gap Length (mm)	Effective Permeability	Part No
F10	5200	+30/-20	-	≈3848	29-720-37
F39	6700	+40/-30	-	≈4958	29-720-39
F44	1570	+30/-20	-	≈1162	29-720-44
F44	315	±5	≈0.09	≈233	29-724-44*
F5C	315	±5	≈0.10	≈233	29-7207-549*
F44	250	±5	≈0.12	≈185	29-723-44*
F44	160	±5	≈0.20	≈118	29-722-44*
F44	100	±5	≈0.35	≈74	29-721-44*

\*Part number refers to a pair of cores

## Soft Ferrite Cores – RM 6 (Solid)

Low distortion broadband transmission at low signal modulation (F10, F39).

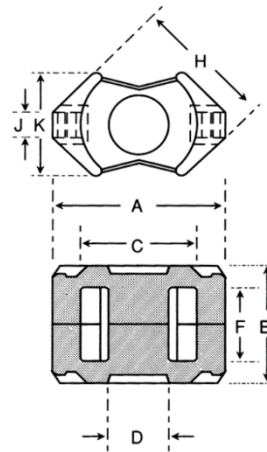
RM cores can also be supplied without the centre hole. These have a higher AL value and cross sectional area and are used for power transformer applications (F44).

### Effective Geometric Parameters

Parameter	Symbol	Value	Unit
$\Sigma(\ell/A)$	$C_1$	0.78	mm <sup>-1</sup>
effective magnetic path length	$\ell_e$	29.00	mm
effective area of magnetic path	$A_e$	37.00	mm <sup>2</sup>
minimum area of magnetic path	$A_{min}$	31.00	mm <sup>2</sup>
effective volume	$V_e$	1090	mm <sup>3</sup>

### Dimensions

Symbol	Value (mm)
A	17.30-17.90
B	12.30-12.50
C	12.40-12.90
D	6.10-6.40
F	8.00-8.40
H	14.10-14.70
J	2.90 nom.
K	10.08-10.48



### Electrical Specifications

Grade	$A_L$	Tolerance on $A_L$ (%)	Gap Length (mm)	Effective Permeability	Part No
F 9	5000	±20	-	≈3104	29-750-36E
F10	6200	+40/-30	-	≈3848	29-750-37E
F39	8600	+40/-30	-	≈5338	29-750-39
F44	2000	+30/-20	-	≈1240	29-750-44
F48	2500	+30/-20	-	≈1552	29-750-48
F48	315	±5	≈0.08	≈196	29-754-48*
F48	250	±5	≈0.11	≈155	29-753-48*
F 5A	160	±5	≈0.20	≈99	29-752-49*
F48	160	±5	≈0.20	≈99	29-752-48*
F48	100	±5	≈0.50	≈62	29-751-48*

\*Part number refers to a pair of cores

## Soft Ferrite Cores – RM 7 (Solid)

Low distortion broadband transmission at low signal modulation (F39).

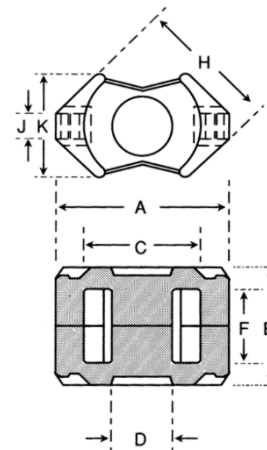
RM cores can also be supplied without the centre hole. These have a higher AL value and cross sectional area and are used for power transformer applications (F5C).

### Effective Geometric Parameters

Parameter	Symbol	Value	Unit
$\Sigma(\ell/A)$	$C_1$	0.70	mm <sup>-1</sup>
effective magnetic path length	$\ell_e$	30.40	mm
effective area of magnetic path	$A_e$	43.00	mm <sup>2</sup>
minimum area of magnetic path	$A_{min}$	39.00	mm <sup>2</sup>
effective volume	$V_e$	1340	mm <sup>3</sup>

### Dimensions

Symbol	Value (mm)
A	19.5-20.30
B	13.30-13.50
C	14.75-15.39
D	6.95-7.25
F	8.40-8.88
H	16.50-17.20
J	3.20-3.40
K	11.70 nom.



### Electrical Specifications

Grade	$A_L$	Tolerance on $A_L$ (%)	Gap Length (mm)	Effective Permeability	Part No
F39	10000	+40/-30	-	≈5570	29-7800-39
F 5C	160	±5	≈0.40	≈89	29-7805-S49*
P11	250	±5	≈0.25	≈139	29-7806-41*

\*Part number refers to a pair of cores

## Soft Ferrite Cores – RM 8 (Solid)

Low distortion broadband transmission at low signal modulation (F10, F39).

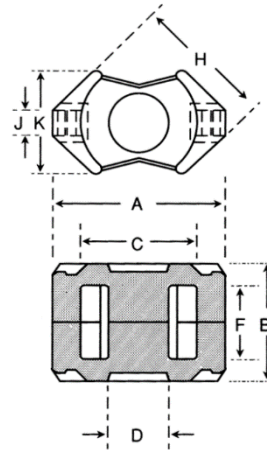
RM cores can also be supplied without the centre hole. These have a higher AL value and cross sectional area and are used for power transformer applications (F44).

### Effective Geometric Parameters

Parameter	Symbol	Value	Unit
$\Sigma(\ell/A)$	$C_1$	0.59	mm <sup>-1</sup>
effective magnetic path length	$\ell_e$	38.00	mm
effective area of magnetic path	$A_e$	64.00	mm <sup>2</sup>
minimum area of magnetic path	$A_{min}$	55.00	mm <sup>2</sup>
effective volume	$V_e$	2430	mm <sup>3</sup>

### Dimensions

Symbol	Value (mm)
A	22.30-23.20
B	16.30-16.50
C	17.00-17.70
D	8.25-8.55
F	10.80-11.20
H	18.90-19.70
J	5.00 nom.
K	15.36 nom.



### Electrical Specifications

Grade	$A_L$	Tolerance on $A_L$ (%)	Gap Length (mm)	Effective Permeability	Part No
F10	8375	+30/-20	-	≈3932	29-810-37
F39	12500	+40/-20	-	≈5869	29-810-39
F44	2905	+30/-20	-	≈1364	29-810-44
F48	3400	+30/-20	-	≈1596	29-810-48
F 5A	400	±5	≈0.15	≈188	29-8108-S49*
F 5A	250	±5	≈0.25	≈117	29-813-49*
F44	250	±5	≈0.25	≈117	29-813-44*
F48	250	±5	≈0.25	≈117	29-813-48*
F 5A	160	±5	≈0.40	≈75	29-8105-S49*
F48	160	±5	≈0.40	≈75	29-812-48*
F44	100	±5	≈0.70	≈47	29-811-44*

\*Part number refers to a pair of cores

## Soft Ferrite Cores – RM 10 (Solid)

Low distortion broadband transmission at low signal modulation (F39).

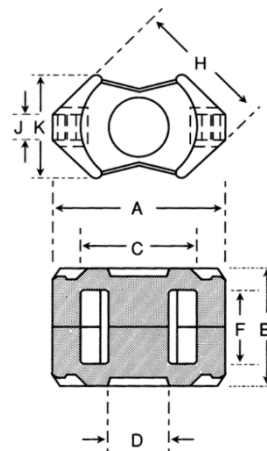
RM cores can also be supplied without the centre hole. These have a higher AL value and cross sectional area and are used for power transformer applications (F44).

### Effective Geometric Parameters

Parameter	Symbol	Value	Unit
$\Sigma(\ell/A)$	$C_1$	0.45	mm <sup>-1</sup>
effective magnetic path length	$\ell_e$	44.00	mm
effective area of magnetic path	$A_e$	98.00	mm <sup>2</sup>
minimum area of magnetic path	$A_{min}$	90.00	mm <sup>2</sup>
effective volume	$V_e$	4310	mm <sup>3</sup>

### Dimensions

Symbol	Value (mm)
A	27.20-28.40
B	18.50-18.70
C	21.20-22.10
D	10.50-10.90
F	12.40-13.00
H	23.60-24.70
J	5.00 nom.
K	18.94 nom.



### Electrical Specifications

Grade	$A_L$	Tolerance on $A_L$ (%)	Gap Length (mm)	Effective Permeability	Part No
F 9	7875	+30/-20	-	≈2820	29-850-36
F39	16000	+40/-30	-	≈5730	29-850-39
F48	4250	+30/-20	-	≈1522	29-850-48
F 5A	630	±5	≈0.13	≈226	29-8609-S49*
F44	400	±5	≈0.21	≈143	29-865-44*
F47	250	±3	≈0.55	≈90	29-863-47*
F48	200	±3	≈0.70	≈72	29-8614-48*
F 5A	160	±5	≈0.90	≈57	29-862-49*

\*Part number refers to a pair of cores

### Soft Ferrite Cores – RM 12i (Solid)

Low distortion broadband transmission at low signal modulation (F10, F39).

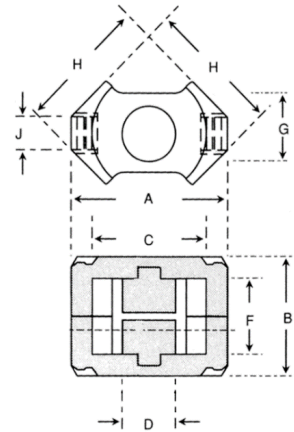
RM cores can also be supplied without the centre hole. These have a higher AL value and cross sectional area and are used for power transformer applications (F44, F5C).

#### Effective Geometric Parameters

Parameter	Symbol	Value	Unit
$\Sigma(\ell/A)$	$C_1$	0.388	mm <sup>-1</sup>
effective magnetic path length	$\ell_e$	56.60	mm
effective area of magnetic path	$A_e$	146.00	mm <sup>2</sup>
minimum area of magnetic path	$A_{min}$	125.00	mm <sup>2</sup>
effective volume	$V_e$	8340	mm <sup>3</sup>

#### Dimensions

Symbol	Value (mm)
A	36.10-37.60
B	24.30-24.60
C	25.00-26.00
D	12.40-12.80
F	16.80-17.40
G	15.60-16.10
H	28.60-29.80
J	5.00 nom.



#### Electrical Specifications

Grade	$A_L$	Tolerance on $A_L$ (%)	Gap Length (mm)	Effective Permeability	Part No
F44	5000	+30/-20	-	≈1544	29-940-44
F48	6069	+30/-20	-	≈1874	29-940-48
F 9	9200	+30/-20	-	≈2841	29-940-36
F39	14200	+40/-20	-	≈4384	29-940-39
F48	160	+5/-5	≈1.30	≈49	29-941-48*
F48	250	+5/-5	≈0.70	≈77	29-942-48*
F48	400	+5/-5	≈0.35	≈124	29-943-48*

\*Part number refers to a pair of cores

### Soft Ferrite Cores – RM 14i (Solid)

Low distortion broadband transmission at low signal modulation (F10, F39).

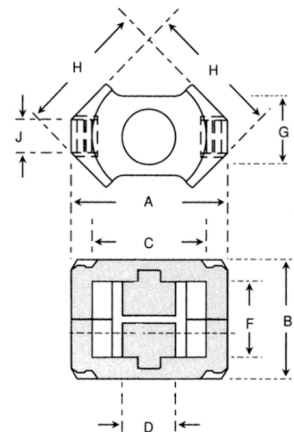
RM cores can also be supplied without the centre hole. These have a higher AL value and cross sectional area and are used for power transformer applications (F44, F5C).

#### Effective Geometric Parameters

Parameter	Symbol	Value	Unit
$\Sigma(\ell/A)$	$C_1$	0.35	mm <sup>-1</sup>
effective magnetic path length	$\ell_e$	70.00	mm
effective area of magnetic path	$A_e$	200.00	mm <sup>2</sup>
minimum area of magnetic path	$A_{min}$	170.00	mm <sup>2</sup>
effective volume	$V_e$	14000	mm <sup>3</sup>

#### Dimensions

Symbol	Value (mm)
A	41.00-42.20
B	30.00-30.20
C	29.00-30.00
D	14.50-15.00
F	20.80-21.40
G	18.40-19.00
H	33.50-34.80
J	5.60 nom



#### Electrical Specifications

Grade	$A_L$	Tolerance on $A_L$ (%)	Gap Length (mm)	Effective Permeability	Part No
F47	5400	+30/-20	-	≈1504	29-980-47
F47	1000	+5/-5	0.16	≈279	29-98X-47*
F44	250	+5/-5	1.00	≈70	29-981-44*
F48	160	+40/-20	1.90	≈45	29-983-48*

\*Part number refers to a pair of cores

### Soft Ferrite Cores – RM 14i

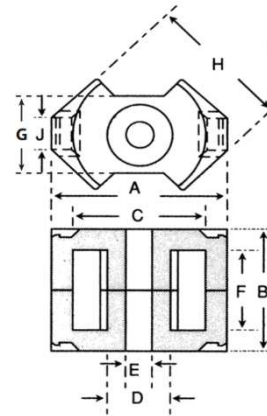
Low distortion broadband transmission at low signal modulation (F39).  
RM cores can also be supplied without the centre hole.

#### Effective Geometric Parameters

Parameter	Symbol	Value	Unit
$\Sigma(\ell/A)$	$C_1$	0.40	$\text{mm}^{-1}$
effective magnetic path length	$\ell_e$	71.00	mm
effective area of magnetic path	$A_e$	178.00	$\text{mm}^2$
minimum area of magnetic path	$A_{\min}$	-	$\text{mm}^2$
effective volume	$V_e$	12600	$\text{mm}^3$

#### Dimensions

Symbol	Value (mm)
A	41.00-42.20
B	30.00-30.20
C	29.00-30.00
D	14.50-15.00
E	5.20 min
F	20.80-21.40
G	18.40-19.00
H	33.50-34.80
J	5.60 nom



#### Electrical Specifications

Grade	$A_L$	Tolerance on $A_L$ (%)	Gap Length (mm)	Effective Permeability	Part No
F39	1800	+40/-30	-	$\approx 5730$	29-880-39

### Soft Ferrite Cores – RM 14

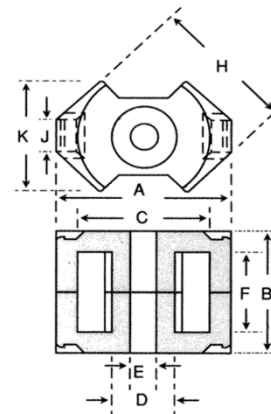
RM cores can also be supplied without the centre hole.

#### Effective Geometric Parameters

Parameter	Symbol	Value	Unit
$\Sigma(\ell/A)$	$C_1$	0.353	$\text{mm}^{-1}$
effective magnetic path length	$\ell_e$	63.38	mm
effective area of magnetic path	$A_e$	188.98	$\text{mm}^2$
minimum area of magnetic path	$A_{\min}$	-	$\text{mm}^2$
effective volume	$V_e$	11978	$\text{mm}^3$

#### Dimensions

Symbol	Value (mm)
A	40.80-42.40
B	28.80-29.00
C	29.00-30.20
D	14.50-15.00
E	5.40-5.60
F	20.80-21.40
H	33.50-34.70
J	5.60-5.80
K	27.05 nom.



#### Electrical Specifications

Grade	$A_L$	Tolerance on $A_L$ (%)	Gap Length (mm)	Effective Permeability	Part No
F 5a	250	$\pm 5$	$\approx 1.00$	$\approx 70$	29-881-49*

\*Part number refers to a pair of cores