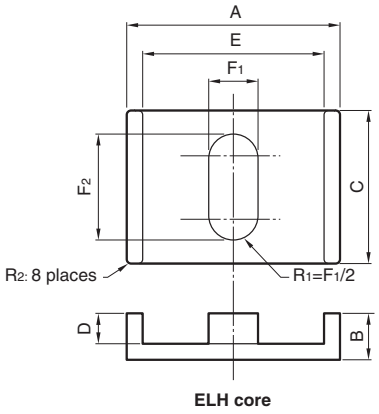
Mn-Zn EL Cores

SHAPES AND DIMENSIONS



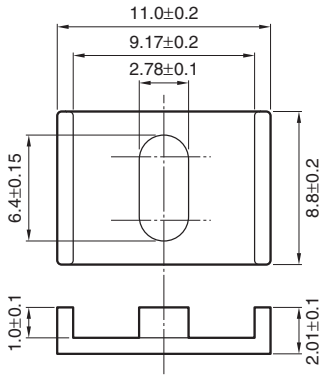
PC95	EL11X4	-	Z
Material	Size of E core		AL-value (Z: without air gap)

Part No.(ELH+ELH)	Dimensions (mm)							
	A	B	C	D	E	F1	F2	R2
PC95EL11X4-Z PC90EL11X4-Z	11.00±0.20	2.01±0.10	8.80±0.20	1.00±0.10	9.17±0.20	2.78±0.10	6.40±0.15	0.30
PC95EL13X4.4-Z PC90EL13X4.4-Z	13.00±0.25	2.19±0.10	10.40±0.20	1.00±0.10	10.83±0.20	3.29±0.10	7.56±0.15	0.30
PC95EL15.5X5.8-Z PC90EL15.5X5.8-Z	15.50±0.30	2.92±0.10	12.40±0.25	1.50±0.10	12.92±0.25	3.92±0.10	9.01±0.20	0.30
PC95EL18X7.3-Z PC90EL18X7.3-Z	18.00±0.30	3.65±0.10	14.40±0.25	2.00±0.10	15.00±0.30	4.55±0.10	10.47±0.20	0.30
PC95EL20X7.7-Z PC90EL20X7.7-Z	20.00±0.35	3.83±0.10	16.00±0.30	2.00±0.10	16.67±0.30	5.06±0.15	11.63±0.20	0.50
PC95EL22X8-Z PC90EL22X8-Z	22.00±0.40	4.02±0.10	17.60±0.30	2.00±0.10	18.33±0.35	5.56±0.15	12.79±0.25	0.50
PC95EL25X8.6-Z PC90EL25X8.6-Z	25.00±0.45	4.29±0.10	20.00±0.35	2.00±0.10	20.83±0.35	6.32±0.15	14.54±0.25	0.50

Part No.(ELH+ELH)	Effective parameter							Electrical characteristics	
	Core factor C1(mm−1)	Effective cross-sectional area Ae(mm2)	Effective magnetic path length ℓe(mm)	Effective core volume Ve(mm3)	Amin. (mm2)	Acw (mm2)	Weigh (g)	AL-value (nH/N2) 1kHz 0.5mA 100Ts	
								Without air gap	With air gap
PC95EL11X4-Z	0.826	13.7	16.5	226	15.9	6.39	1.3	2400±25%	50±3% 80±5% 125±7%
PC90EL11X4-Z								1950±25%	
PC95EL13X4.4-Z	0.667	15.4	23.1	357	22.4	7.54	2.0	3160±25%	63±3% 100±5% 160±7%
PC90EL13X4.4-Z								2500±25%	
PC95EL15.5X5.8-Z	0.597	19.6	32.9	646	31.9	13.5	3.5	3680±25%	63±3% 100±3% 160±5%
PC90EL15.5X5.8-Z								3000±25%	
PC95EL18X7.3-Z	0.538	23.8	44.3	1050	43.0	20.9	6.0	4760±25%	80±3% 125±3% 200±5%
PC90EL18X7.3-Z								3600±25%	
PC95EL20X7.7-Z	0.469	25.6	54.6	1400	52.9	23.2	7.8	5630±25%	80±3% 125±3% 200±5%
PC90EL20X7.7-Z								4050±25%	
PC95EL22X8-Z	0.413	27.3	66.2	1810	64.2	25.5	10	6540±25%	100±3% 160±3% 250±5%
PC90EL22X8-Z								5050±25%	
PC95EL25X8.6-Z	0.350	30.0	85.6	2570	83.0	29.0	15	7540±25%	100±3% 160±3% 250±5%
PC90EL25X8.6-Z								5700±25%	

Mn-Zn Planar series **Part No.: PC90EL11X4-Z**

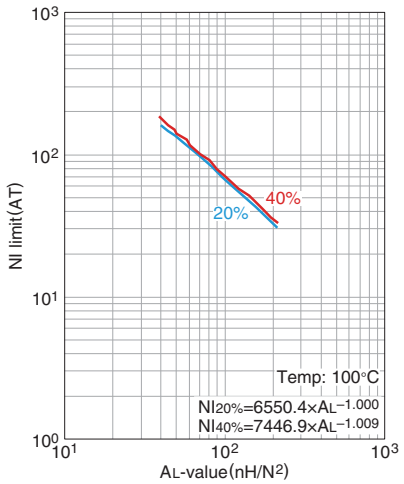
SHAPES AND DIMENSIONS



Dimensions in mm

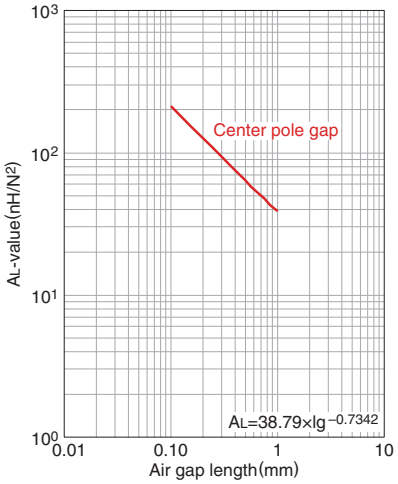
Effective parameter						Electrical characteristics	
Core factor C_1 (mm^{-1})	Effective magnetic path length ℓe (mm)	Effective cross-sectional area Ae (mm^2)	Effective core volume Ve (mm^3)	Cross-sectional winding area of core Acw (mm^2)	Weigh (g/set)	A_L-value * (nH/N^2) 1kHz 0.5mA	Core loss (W)max. 100kHz 200mT 100°C
0.826	13.7	16.5	226	6.39	1.3	1950±25%	0.2

NI limit vs. A_L-value (Typ.)



The 20% and 40% graph shows when a 20% and 40% drop from the initial A_L-value has been made due to the DC superimposition.

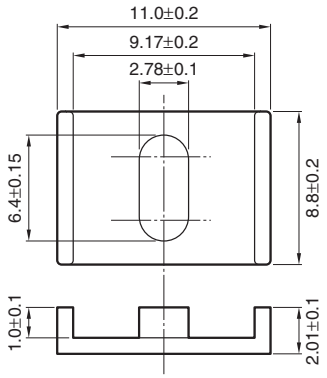
A_L-value vs. Air gap length (Typ.)



Measuring conditions
- Coil : ø0.18 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

Mn-Zn Planar series **Part No.: PC95EL11X4-Z**

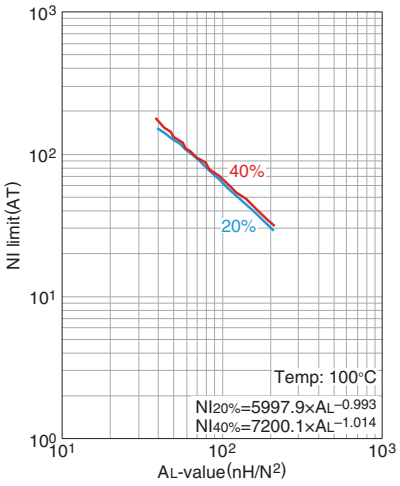
SHAPES AND DIMENSIONS



Dimensions in mm

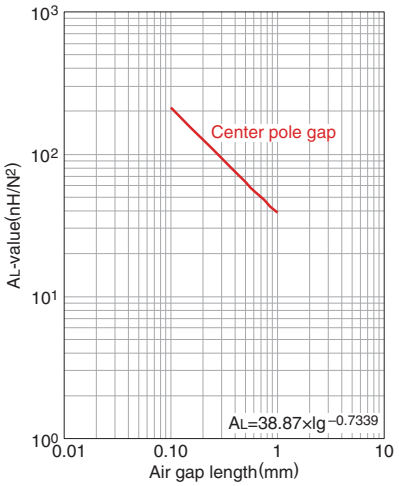
Effective parameter						Electrical characteristics			
Core factor C_1 (mm^{-1})	Effective magnetic path length ℓe (mm)	Effective cross-sectional area Ae (mm^2)	Effective core volume Ve (mm^3)	Cross-sectional winding area of core Acw (mm^2)	Weigh (g/set)	A_L-value * (nH/N^2) 1kHz 0.5mA	Core loss (W)max. 100kHz 200mT 25°C	80°C	120°C
0.826	13.7	16.5	226	6.39	1.3	2400±25%	0.2	0.18	0.2

NI limit vs. A_L-value (Typ.)



The 20% and 40% graph shows when a 20% and 40% drop from the initial A_L-value has been made due to the DC superimposition.

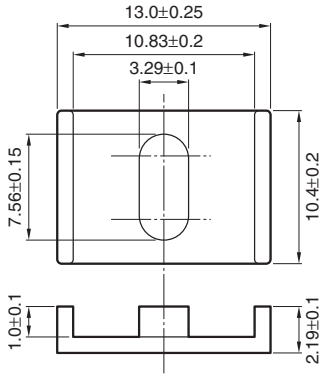
A_L-value vs. Air gap length (Typ.)



Measuring conditions
- Coil : ø0.18 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

Mn-Zn Planar series **Part No.: PC90EL13X4.4-Z**

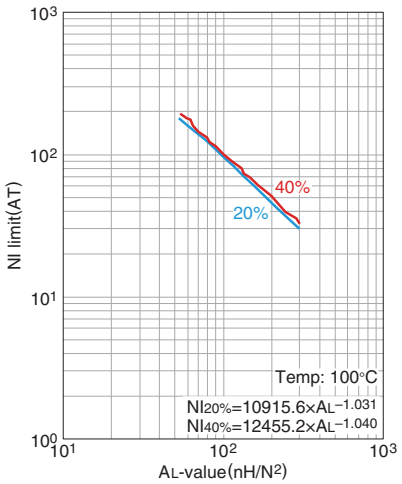
SHAPES AND DIMENSIONS



Dimensions in mm

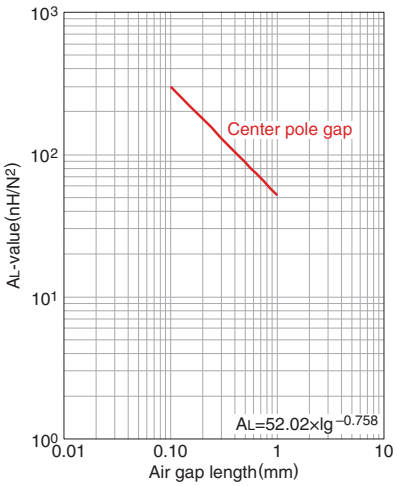
Effective parameter						Electrical characteristics	
Core factor C_1 (mm^{-1})	Effective magnetic path length ℓe (mm)	Effective cross-sectional area Ae (mm^2)	Effective core volume Ve (mm^3)	Cross-sectional winding area of core Acw (mm^2)	Weigh (g/set)	A_L-value * (nH/N^2) 1kHz 0.5mA	Core loss (W)max. 100kHz 200mT 100°C
0.667	15.4	23.1	357	7.54	2.0	2500±25%	0.25

NI limit vs. A_L-value (Typ.)



The 20% and 40% graph shows when a 20% and 40% drop from the initial A_L-value has been made due to the DC superimposition.

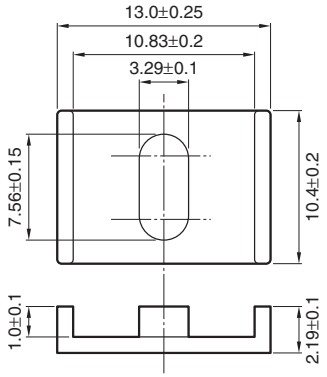
A_L-value vs. Air gap length (Typ.)



Measuring conditions
- Coil : ø0.18 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

Mn-Zn Planar series **Part No.: PC95EL13X4.4-Z**

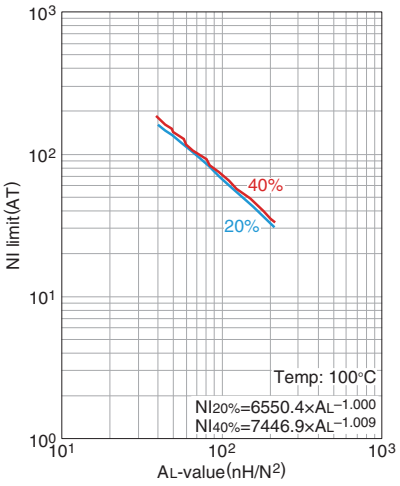
SHAPES AND DIMENSIONS



Dimensions in mm

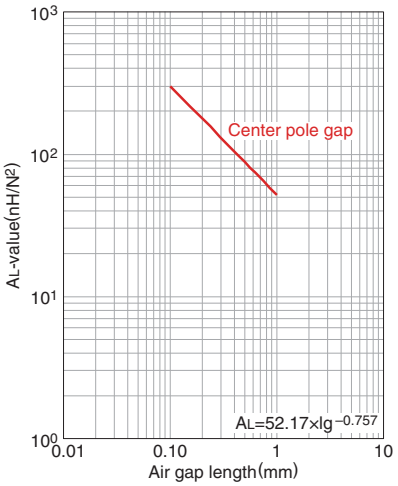
Effective parameter						Electrical characteristics			
Core factor C_1 (mm^{-1})	Effective magnetic path length ℓe (mm)	Effective cross-sectional area Ae (mm^2)	Effective core volume Ve (mm^3)	Cross-sectional winding area of core Acw (mm^2)	Weigh (g/set)	A_L-value * (nH/N^2) 1kHz 0.5mA	Core loss (W)max. 100kHz 200mT 25°C	 80°C	 120°C
0.667	15.4	23.1	357	7.54	2.0	3160±25%	0.25	0.2	0.25

NI limit vs. A_L-value (Typ.)



The 20% and 40% graph shows when a 20% and 40% drop from the initial A_L-value has been made due to the DC superimposition.

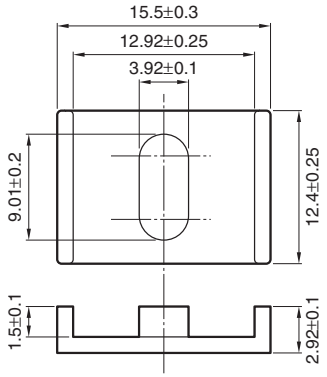
A_L-value vs. Air gap length (Typ.)



Measuring conditions
- Coil : ø0.18 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

Mn-Zn Planar series **Part No.: PC90EL15.5X5.8-Z**

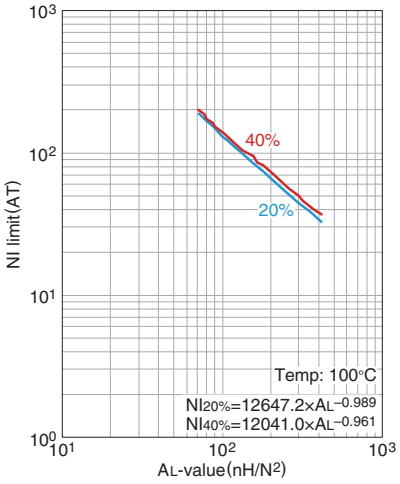
SHAPES AND DIMENSIONS



Dimensions in mm

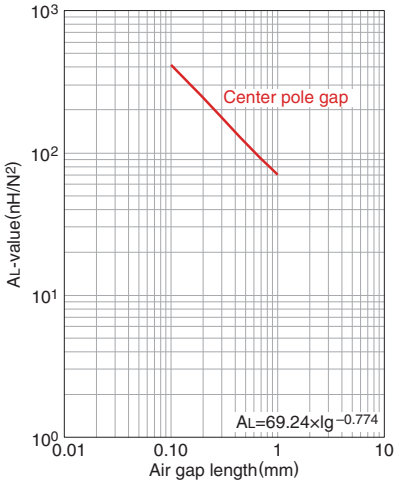
Effective parameter						Electrical characteristics	
Core factor C_1 (mm^{-1})	Effective magnetic path length ℓe (mm)	Effective cross-sectional area Ae (mm^2)	Effective core volume Ve (mm^3)	Cross-sectional winding area of core Acw (mm^2)	Weigh (g/set)	A_L-value * (nH/N^2) 1kHz 0.5mA	Core loss (W)max. 100kHz 200mT 100°C
0.597	19.6	32.9	646	13.5	3.5	3000±25%	0.5

NI limit vs. A_L-value (Typ.)



The 20% and 40% graph shows when a 20% and 40% drop from the initial A_L-value has been made due to the DC superimposition.

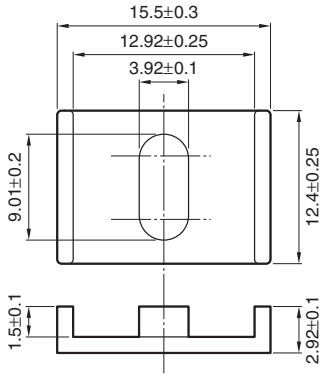
A_L-value vs. Air gap length (Typ.)



Measuring conditions
- Coil : ø0.18 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C

Mn-Zn Planar series **Part No.: PC95EL15.5X5.8-Z**

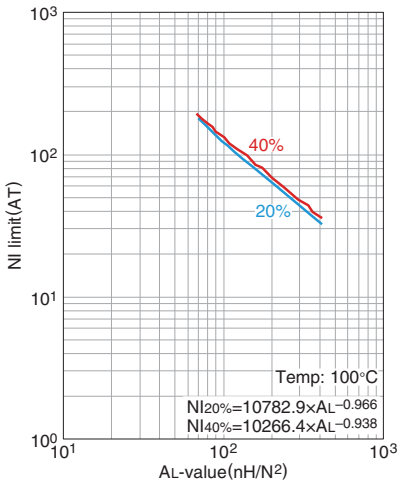
SHAPES AND DIMENSIONS



Dimensions in mm

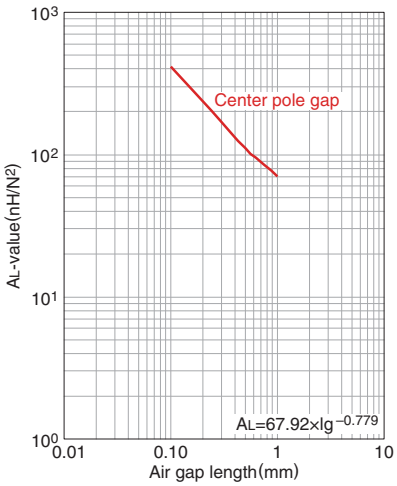
Effective parameter						Electrical characteristics			
Core factor	Effective magnetic path length	Effective cross-sectional area	Effective core volume	Cross-sectional winding area of core	Weigh	AL-value *	Core loss		
C1	ℓe	Ae	Ve	Acw					
(mm^{-1})	(mm)	(mm^2)	(mm^3)	(mm^2)	(g/set)	(nH/N^2) 1kHz 0.5mA	(W)max. 100kHz 200mT		
							25°C	80°C	120°C
0.597	19.6	32.9	646	13.5	3.5	3680±25%	0.5	0.45	0.5

NI limit vs. AL-value (Typ.)



The 20% and 40% graph shows when a 20% and 40% drop from the initial AL-value has been made due to the DC superimposition.

AL-value vs. Air gap length (Typ.)



Measuring conditions
- Coil : ø0.18 2UEW 100Ts
- Frequency : 1kHz
- Current level : 0.5mA
- Ambient temperature : 25°C