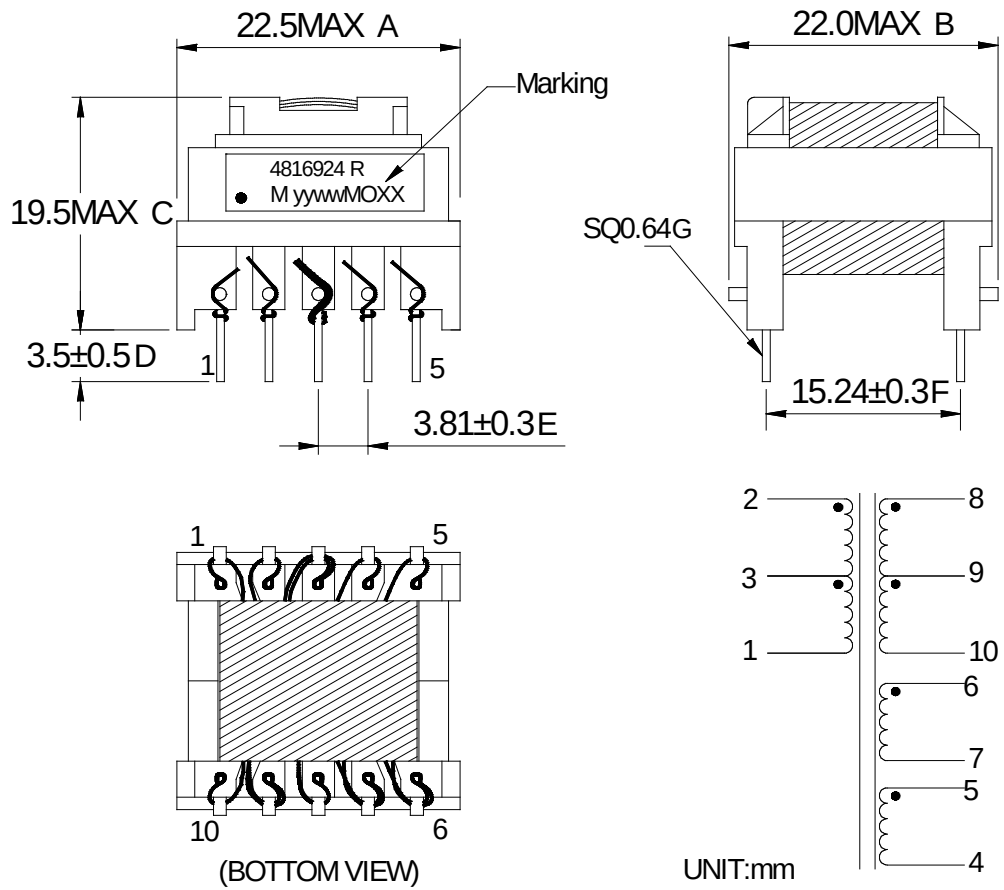
MINNTRONIX
Wind Up the Best



MinntroniX RoHS compliant product / Pb Lead Free	NOTES:	MTX Approval			Minntronix, Inc. 1600 Ninth Avenue SW Watertown, SD 57201 USA Phone: (605) 884-0195 Toll Free: (888) 244-3173 (US / Canada) www.minntronix.com
		Tech: MAJ	Eng.:		
		Date: 12/28/18	Date:		Contains information confidential to Minntronix, Inc.

Customer:	**TE Connectivity**	**Part No.:**	**N/A**	**Rev.:**	**N/A**	**MTX P/N:**	**4816924R**	**Rev.:**	**6**

▽ - Indicates Key Characteristic

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COIL WINDING INSTRUCTIONS

Step	Winding / Insulation	Material Reference	Start		Finish		No. Turns	Notes
			Pin #	Wire Route	Pin #	Wire Route		
1	W1	WIRE:AWG#32, Heavy, MW80C	2		3		46	Wind in 1 layer and 90° back.
	INSULATION	TAPE: 35660Y x 13mm					1	
2	W2	WIRE:AWG#32, Heavy, MW80C	5		4		26	Wind in 1 sparse layer and 90° back.
	INSULATION	TAPE: 35660Y x 13mm					3	
3	W3	TIW: 2 xφ0.45mm, STW-B	6		7		5	Wind in 1 layer and 90° back.
	INSULATION	TAPE: 35660Y x 13mm					1	
4	W4	TIW: φ0.32mm STW-B	9		10		5	Wind in 1 layer and 90° back.
	INSULATION	TAPE: 35660Y x 13mm					1	
5	W5	TIW: φ0.23mm STW-B	8		9		17	Wind in 1 layer and 90° back.
	INSULATION	TAPE: 35660Y x 13mm					3	
6	W6	WIRE:AWG#32, Heavy, MW80C	3		1		45	Wind in 1 layer and 90° back.
	INSULATION	TAPE: 35660Y x 13mm					3	

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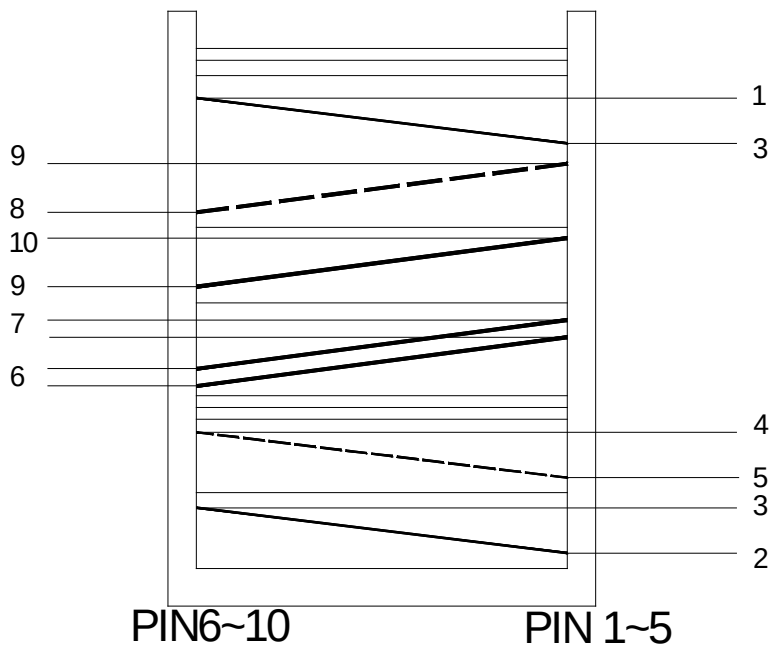
WINDING CROSS SECTION



ASSEMBLY INSTRUCTIONS

Termination & Soldering:

1. Lead free solder.

Assembly:

1. About 0.34mm air gap in center leg.
2. Use epoxy: #638 to fix the core.
3. Secure core with 2~3 layers of 35660Yx5.5mm tape,

Varnish:

1. 468-2FC (Dip varnish only)

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ELECTRICAL SPECIFICATION AND TEST REPORT

Testing Item	Specification	Pin Numbers	Core(s):						Date Code:			
			Sample Test Data (samples with * retained at MTX)									
			1	2	3	4	5	6	7	8	9	10
INDUCTANCE @100kHz, 100mV	1.09mH±10%	2-1										
LEAKAGE INDUCTANCE @100kHz, 100mV	27µH MAX	2-1										
	(Tie 4+5+6+7+8+9+10)											
DC RESISTANCE	2.2Ω MAX	2-1										
	550mΩ MAX	5-4										
	16mΩ MAX	6-7										
	375mΩ MAX	8-9										
	60mΩ MAX	9-10										
TURNS RATIO @20kHz, 1.0V IN-PUT: 2-3	0.974 ± 3%	3-1										
	0.565 ± 3%	5-4										
	0.108 ± 3%	6-7										
	0. 369 ± 3%	8-9										
	0.108 ± 3%	9-10										
HI-POT TEST	3125VAC, 1mA, 1Sec	1,2,3 to 7,8,9,10										
	1250VAC, 1mA, 1Sec	6,7 to 8,9,10										
	1250VAC, 1mA, 1Sec	1,2,3 to 4,5										

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MECHANICAL DIMENSION AND TEST REPORT

Test Instrument(s)	Printed Specification	Position	Sample Test Data (samples with * retained at MTX)									
			1	2	3	4	5	6	7	8	9	10
Caliper	22.5MAX	A										
	22.0MAX	B										
	19.5MAX	C										
	3.5±0.5	D										
	3.81±0.3	E										
	15.24±0.3	F										
	SQ0.64	G										

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BILL OF MATERIALS

Name	Manufacturer	Description	UL File No.
CORE	DMEGC	EF20(EE20) DMR40	N/A
	TDG	EF20A TP4	N/A
	ACME	EF20 P4 (P4 EF20)	N/A
BOBBIN	Sumitomo Bakelite Co., Ltd. (HAODA)	HD-242,PM-9820,150℃ , 0.16/0.18/0.7/1.5/3.0/0.51-0.69m/m, UL 94V-0	E41429
WIRE	Jung Shing Wire Co Ltd	LSFFY,MW80-C 155℃[#]	E174837
	Tal-I Electric Wire & Cable Co., Ltd.	UEWF-E,MW 80-C 155℃[#]	E85640
	FENG CHING METAL CORP	xFSW-NY , MW 80-C 155℃[#]	E172395
TIW	Young Chang Silicone Co Ltd	STW-B** , 1.4KV, 130℃	E242198
TAPE	SYMBIO INC	35660Y (e) Light Yellow 130℃	E50292
VARNISH	Elantas Electrical Insulation Elantas PDG Inc.	468-2FC(d),468-2(d), 200℃ , MW35-C	E75225
	John C. Dolph Co.	BC-346A , 240℃ , MW16-C	E317427
	Elantas Electrical Insulation Elantas PDG Inc.	V1630FS , 180℃ , MW35-C	E75225