

# MIL-STD-1553 DATABUS INTERFACE TRANSFORMERS LOW PROFILE SINGLE/DUAL

- ① Designed to Meet MIL-STD-1553 A/B & MIL-PRF-21038
- ② Common Mode Rejection (CMR) greater than 45dB
- ③ Impedance test Frequency from 75Khz to 1MHz
- ④ Droop less than 20%
- ⑤ Overshoot & ringing  $\pm 1V$  Max
- ⑥ Pulse Width 2  $\mu$ s

**ELECTRICAL SPECIFICATIONS AT 25°C - OPERATING TEMPERATURE RANGE -55°C TO +125°C**

PART NUMBER	TERMINALS / RATIO		TERMINALS / RATIO		DCR (Ohms Max.)	IMPEDANCE (Ohms MIN.)	SCHEMATICS / PACKAGE
PM-DB2701	1-3:4-8	1:1	1-3:5-7	1:1.707	1-3=3.0, 4-8=3.0	4000	1/A
PM-DB2701EX	1-3:4-8	1:1	1-3:5-7	1:1.707	1-3=3.0, 4-8=3.0	4000	1/G
PM-DB2702	1-3:4-8	1.4:1	1-3:5-7	2:1	1-3=3.5, 4-8=3.0	7200	1/A
PM-DB2703	1-3:4-8	1.25 : 1	1-3:5-7	1.66:1	1-3=3.2, 4-8=3.0	4000	1/A
PM-DB2704	4-8:1-3	2.3:1	5-7:1-3	3.2:1	1-3=1.2, 4-8=3.0	3000	4/A
PM-DB2705	1-2:4-3	1:1.41	---	---	1-2=2.2, 3-4=2.7	3000	3/C
PM-DB2705EX	1-2:3-4	1:1.41	---	---	1-2=2.2, 3-4=2.7	3000	5/C
PM-DB2706	1-5:6-2	1:1	---	---	1-5=2.5, 6-2=2.8	3000	2/B
PM-DB2707	1-5:6-2	1:1.41	---	---	1-5=2.2, 6-2=2.7	3000	2/B
PM-DB2708	1-5:6-2	1:1.66	---	---	1-5=1.5, 6-2=2.4	3000	2/B
PM-DB2709	1-5:6-2	1:2	---	---	1-5=1.3, 6-2=2.6	3000	2/B
PM-DB2710	1-3:4-8	1:2.12	1-3:5-7	1:1.5	1-3=1.0, 4-8=3.5	4000	1/A
PM-DB2711	1-3:4-8	1:1	1-3:5-7	1:1.707	1-3=3.0, 4-8=3.0	4000	1/D
PM-DB2712	1-3:4-8	1.4:1	1-3:5-7	2.1:1	1-3=3.5, 4-8=3.0	7200	1/D
PM-DB2713	1-3:4-8	1.25:1	1-3:5-7	1.66:1	1-3=3.2, 4-8=3.0	4000	1/D
PM-DB2714	4-8:1-3	2.3:1	5-7:1-3	3.2:1	1-3=1.2, 4-8=3.0	3000	4/D
PM-DB2715	1-3:4-8	1:2.12	1-3:5-7	1:1.5	1-3=1.0, 4-8=3.5	4000	1/D
PM-DB2716	1-3:4-8	1:1	1-3:5-7	1:1.707	1-3=3.0, 4-8=3.0	4000	1/E
PM-DB2717	1-3:4-8	1.41:1	1-3:5-7	2:1	1-3=3.5, 4-8=3.0	7200	1/E
PM-DB2718	1-3:4-8	1.25:1	1-3:5-7	1.66:1	1-3=3.2, 4-8=3.0	4000	1/E
PM-DB2719	4-8:1-3	2.3:1	5-7:1-3	3.26:1	1-3=1.2, 4-8=3.0	3000	1/E
PM-DB2720	1-3:4-8	1:2.12	1-3:5-7	1:1.5	1-3=1.0, 4-8=3.5	3000	1/E
PM-DB2721	1-3:4-8	1:1	1-3:5-7	1:1.707	1-3=3.0, 4-8=3.0	4000	1/A
PM-DB2722	1-3:4-8	1.41:1	1-3:5-7	2:1	1-3=3.5, 4-8=3.0	7200	1/A
PM-DB2723	1-3:4-8	1.25:1	1-3:5-7	1.66:1	1-3=3.2, 4-8=3.0	4000	1/A
PM-DB2724	1-3:4-8	1:2.12	1-3:5-7	1:1.5	1-3=1.0, 4-8=3.5	4000	1/A
PM-DB2725	1-3:4-8	1:2.5	1-3:5-7	1:1.79	1-3=1.0, 4-8=3.5	4000	1/A
PM-DB2725EX	1-3:4-8	1:2.5	1-3:5-7	1:1.79	1-3=1.0, 4-8=3.5	4000	1/G
PM-DB2726	1-3:4-8	1:2.5	1-3:5-7	1:1.79	1-3=1.0, 4-8=3.5	4000	1/A
PM-DB2727	1-3:4-8	1:2.5	1-3:5-7	1:1.79	1-3=1.0, 4-8=3.5	4000	1/D
PM-DB2728	1-5:6-2	1:1.5	---	---	1-5=0.9, 6-2=2.5	3000	2/B
PM-DB2729	1-5:6-2	1:1.79	---	---	1-5=0.9, 6-2=2.5	3000	2/B
PM-DB2730	1-5:6-2	1:2.5	---	---	1-5=1.0, 6-2=2.8	3000	2/B
PM-DB2731	1-3:4-8	1:2.5	1-3:5-7	1:1.79	1-3=1.0, 4-8=3.5	4000	1/E

**NOTE: Premier Magnetics 1553 Transformers are now offered and provided by Holt Integrated Circuits.**

# MIL-STD-1553 DATABUS INTERFACE TRANSFORMERS

**LOW PROFILE SINGLE RATIO HT= 0.155"**

PART NUMBER	TERMINALS / RATIO		TERMINALS / RATIO		DCR (Ohms Max.)	IMPEDANCE (Ohms MIN.)	SCHEMATICS / PACKAGE
PM-DB2741	1-3:4-8	1:1	1-3:5-7	1:.707	1-3=3.0, 4-8=3.0	4000	1/K
PM-DB2742	1-3:4-8	1.4:1	1-3:5-7	2:1	1-3=3.5, 4-8=3.0	7200	1/K
PM-DB2743	1-3:4-8	1.25:1	1-3:5-7	1.66:1	1-3=3.2, 4-8=3.0	4000	1/K
PM-DB2744	1-3:4-8	1:2.12	1-3:5-7	1:1.5	1-3=1.0, 4-8=3.5	4000	1/K
PM-DB2745	1-3:4-8	1:2.5	1-3:5-7	1:1.79	1-3=1.0, 4-8=3.5	4000	1/K

PART NUMBER	TERMINALS / RATIO		TERMINALS / RATIO		DCR (Ohms Max.)	IMPEDANCE (Ohms MIN.)	SCHEMATICS / PACKAGE
PM-DB2741L	1-3:4-8	1:1	1-3:5-7	1:.707	1-3=3.0, 4-8=3.0	4000	1/L
PM-DB2742L	1-3:4-8	1.4:1	1-3:5-7	2:1	1-3=3.5, 4-8=3.0	7200	1/L
PM-DB2743L	1-3:4-8	1.25:1	1-3:5-7	1.66:1	1-3=3.2, 4-8=3.0	4000	1/L
PM-DB2744L	1-3:4-8	1:2.12	1-3:5-7	1:1.5	1-3=1.0, 4-8=3.5	4000	1/L
PM-DB2745L	1-3:4-8	1:2.5	1-3:5-7	1:1.79	1-3=1.0, 4-8=3.5	4000	1/L

PART NUMBER	TERMINALS / RATIO		TERMINALS / RATIO		DCR (Ohms Max.)	IMPEDANCE (Ohms MIN.)	SCHEMATICS / PACKAGE
PM-DB2741M	1-3:4-8	1:1	1-3:5-7	1:.707	1-3=3.0, 4-8=3.0	4000	1/M
PM-DB2742M	1-3:4-8	1.4:1	1-3:5-7	2:1	1-3=3.5, 4-8=3.0	7200	1/M
PM-DB2743M	1-3:4-8	1.25:1	1-3:5-7	1.66:1	1-3=3.2, 4-8=3.0	4000	1/M
PM-DB2744M	1-3:4-8	1:2.12	1-3:5-7	1:1.5	1-3=1.0, 4-8=3.5	4000	1/M
PM-DB2745M	1-3:4-8	1:2.5	1-3:5-7	1:1.79	1-3=1.0, 4-8=3.5	4000	1/M

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LOW PROFILE SINGLE/DUAL**

**LOW PROFILE DUAL RATIO HT= 0.155"**

PART NUMBER	TERMINALS / RATIO		TERMINALS / RATIO		DCR (Ohms Max.)	IMPEDANCE (Ohms MIN.)	SCHEMATICS / PACKAGE
PM-DB2741D	1-3:16-13	1:1	1-3:15-14	1:.707	1-3=3.0, 16-13=3.0	4000	6/R
	5-7:12-9	1:1	5-7:11-10	1:.707			
PM-DB2742D	1-3:16-13	1.4:1	1-3:15-14	2:1	1-3=3.5, 16-13=3.0	7200	6/R
	5-7:12-9	1.4:1	5-7:11-10	2:1			
PM-DB2743D	1-3:16-13	1.25:1	1-3:15-14	1.66:1	1-3=3.2, 16-13=3.0	4000	6/R
	5-7:12-9	1.25:1	5-7:11-10	1.66:1			
PM-DB2744D	1-3:16-13	1:2.12	1-3:15-14	1:1.5	1-3=1.0, 16-13=3.1	4000	6/R
	5-7:12-9	1:2.12	5-7:11-10	1:1.5			
PM-DB2745D	1-3:16-13	1:2.5	1-3:15-14	1:1.79	1-3=1.0, 16-13=3.5	4000	6/R
	5-7:12-9	1:2.5	5-7:11-10	1:1.79			

PART NUMBER	TERMINALS / RATIO		TERMINALS / RATIO		DCR (Ohms Max.)	IMPEDANCE (Ohms MIN.)	SCHEMATICS / PACKAGE
PM-DB2741S	1-3:16-13	1:1	1-3:15-14	1:.707	1-3=3.0, 16-13=3.0	4000	6/S
	5-7:12-9	1:1	5-7:11-10	1:.707			
PM-DB2742S	1-3:16-13	1.4:1	1-3:15-14	2:1	1-3=3.5, 16-13=3.0	7200	6/S
	5-7:12-9	1.4:1	5-7:11-10	2:1			
PM-DB2743S	1-3:16-13	1.25:1	1-3:15-14	1.66:1	1-3=3.2, 16-13=3.0	4000	6/S
	5-7:12-9	1.25:1	5-7:11-10	1.66:1			
PM-DB2744S	1-3:16-13	1:2.12	1-3:15-14	1:1.5	1-3=1.0, 16-13=3.1	4000	6/S
	5-7:12-9	1:2.12	5-7:11-10	1:1.5			
PM-DB2745S	1-3:16-13	1:2.5	1-3:15-14	1:1.79	1-3=1.0, 16-13=3.5	4000	6/S
	5-7:12-9	1:2.5	5-7:11-10	1:1.79			

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LOW PROFILE SINGLE/DUAL**

**LOW PROFILE DUAL RATIO HT= 0.155"**

PART NUMBER	TERMINALS / RATIO		TERMINALS / RATIO		DCR (Ohms Max.)	IMPEDANCE (Ohms MIN.)	SCHEMATICS / PACKAGE
PM-DB2741T	1-3:16-13	1:1	1-3:15-14	1:.707	1-3=3.0, 16-13=3.0	4000	6/T
	5-7:12-9	1:1	5-7:11-10	1:.707	5-7=3.0, 12-9=3.0	4000	
PM-DB2742T	1-3:16-13	1.4:1	1-3:15-14	2:1	1-3=3.5, 16-13=3.0	7200	6/T
	5-7:12-9	1.4:1	5-7:11-10	2:1	5-7=3.5, 12-9=3.0	7200	
PM-DB2743T	1-3:16-13	1.25:1	1-3:15-14	1.66:1	1-3=3.2, 16-13=3.0	4000	6/T
	5-7:12-9	1.25:1	5-7:11-10	1.66:1	5-7=3.2, 12-9=3.0	4000	
PM-DB2744T	1-3:16-13	1:2.12	1-3:15-14	1:1.5	1-3=1.0, 16-13=3.1	4000	6/T
	5-7:12-9	1:2.12	5-7:11-10	1:1.5	5-7=1.0, 12-9=3.1	4000	
PM-DB2745T	1-3:16-13	1:2.5	1-3:15-14	1:1.79	1-3=1.0, 16-13=3.5	4000	6/T
	5-7:12-9	1:2.5	5-7:11-10	1:1.79	5-7=1.0, 12-9=3.5	4000	

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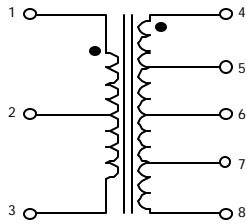
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23351 Madero, Mission Viejo, CA 92691-2730 · TEL: (949) 859-8800 · FAX: (949) 859-9643 · E-MAIL: info@holtic.com  
[www.holtic.com](http://www.holtic.com)

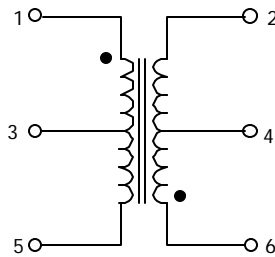
**MIL-STD-1553  
DATABUS INTERFACE  
TRANSFORMERS  
LOW PROFILE SINGLE/DUAL**

**SCHEMATICS**

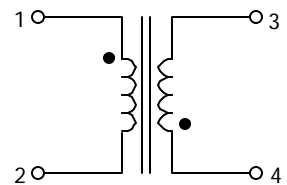
**SCHEMATIC "1"**



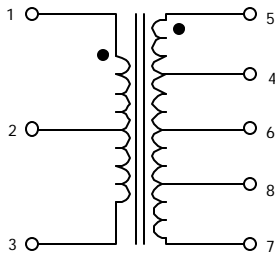
**SCHEMATIC "2"**



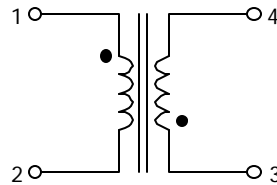
**SCHEMATIC "3"**



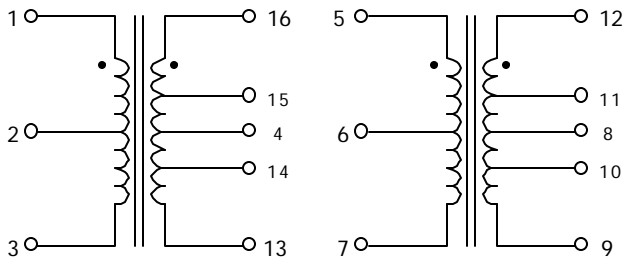
**SCHEMATIC "4"**



**SCHEMATIC "5"**



**SCHEMATIC "6"**



# MIL-STD-1553 DATABUS INTERFACE TRANSFORMERS LOW PROFILE SINGLE/DUAL

FIGURE #A

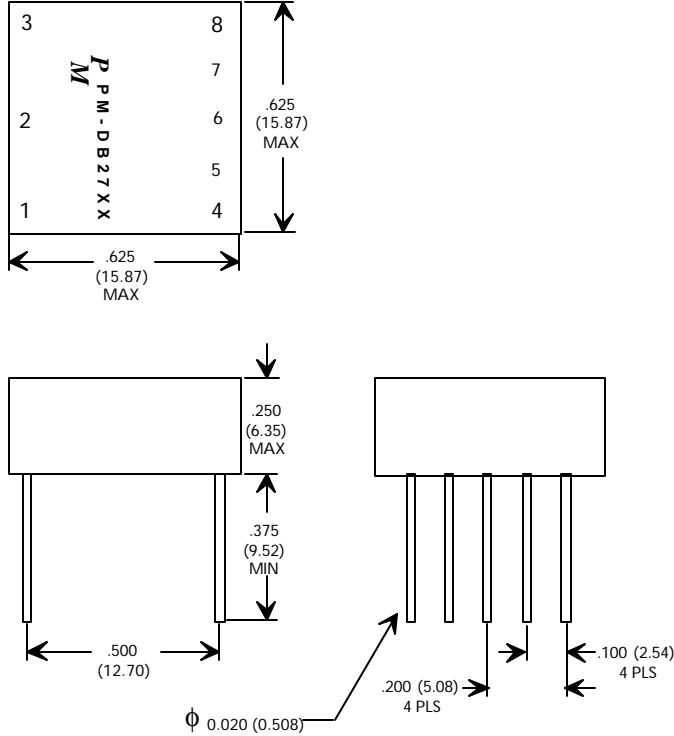


FIGURE #B

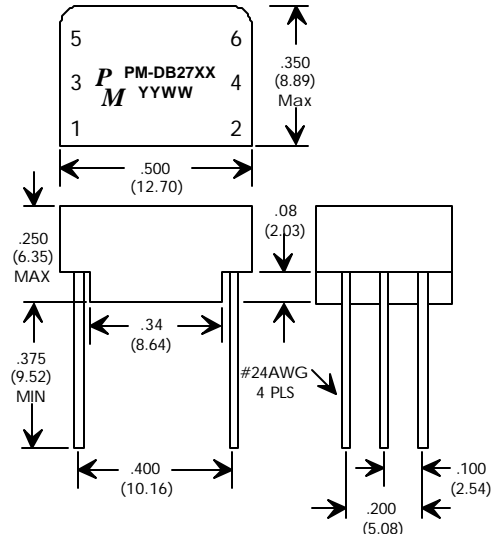


FIGURE #C

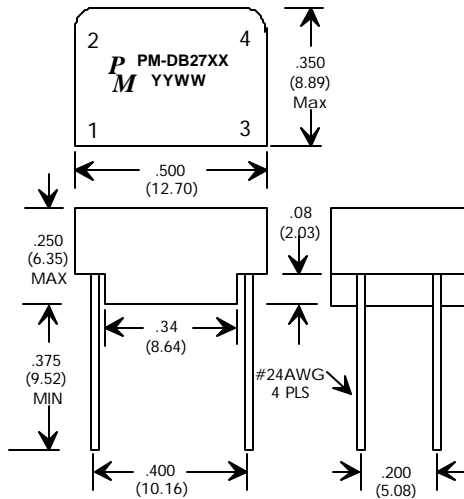
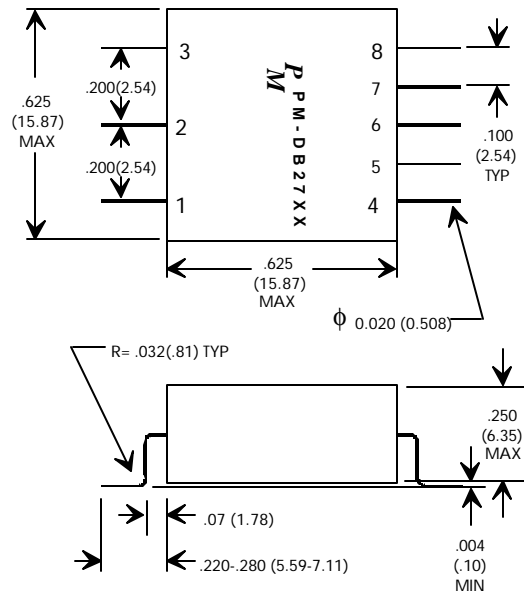


FIGURE #D



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# MIL-STD-1553 DATABUS INTERFACE TRANSFORMERS LOW PROFILE SINGLE/DUAL

FIGURE #E

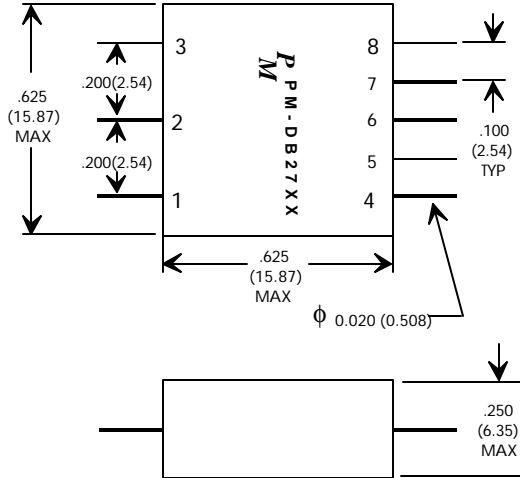


FIGURE #F

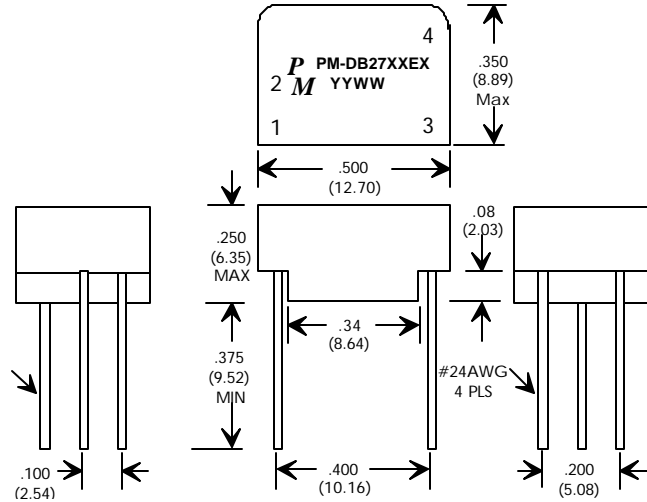


FIGURE #G

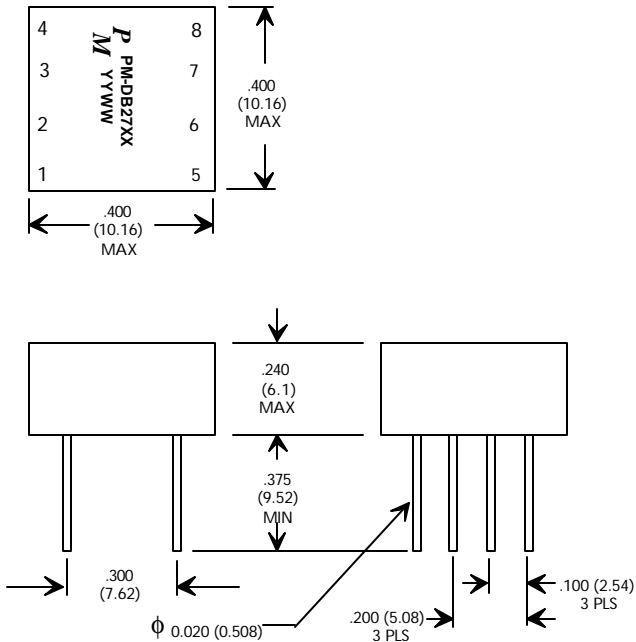


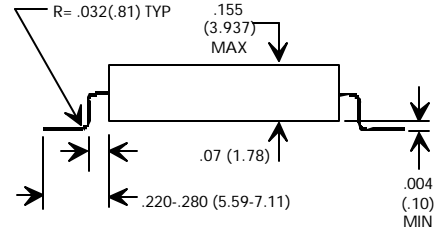
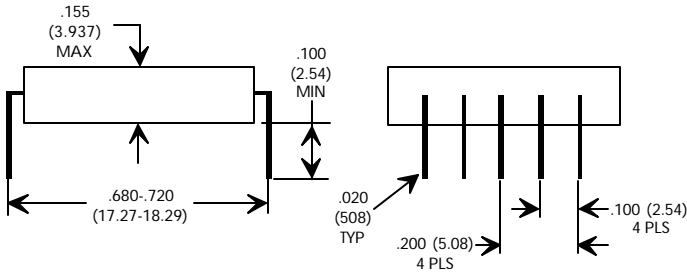
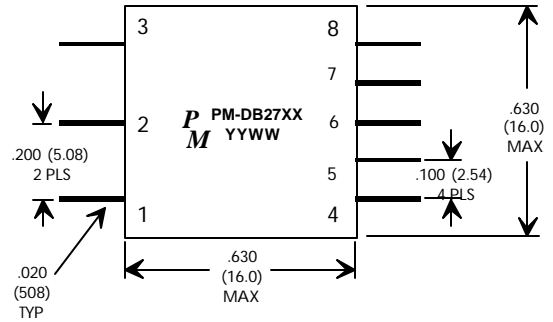
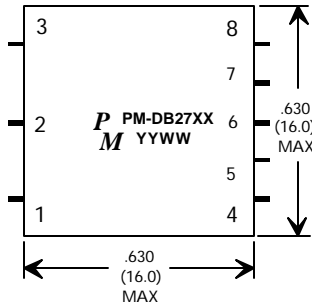
FIGURE #H

Specifications subject to change without notice.

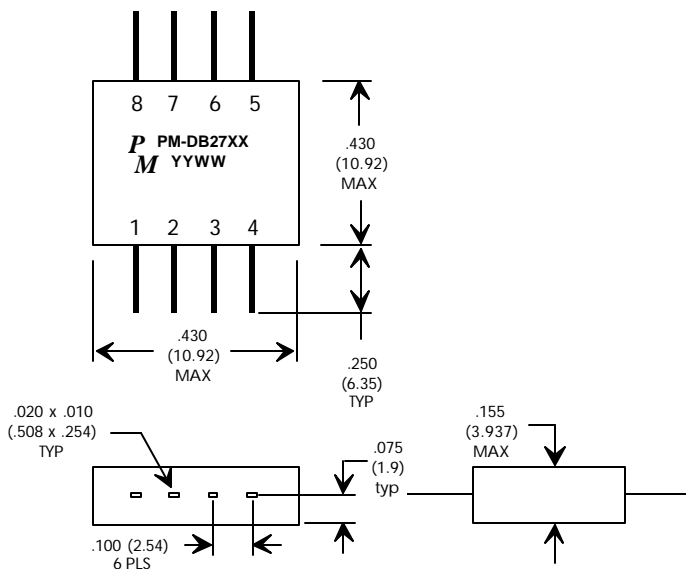
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**FIGURE # K**



**FIGURE # M**



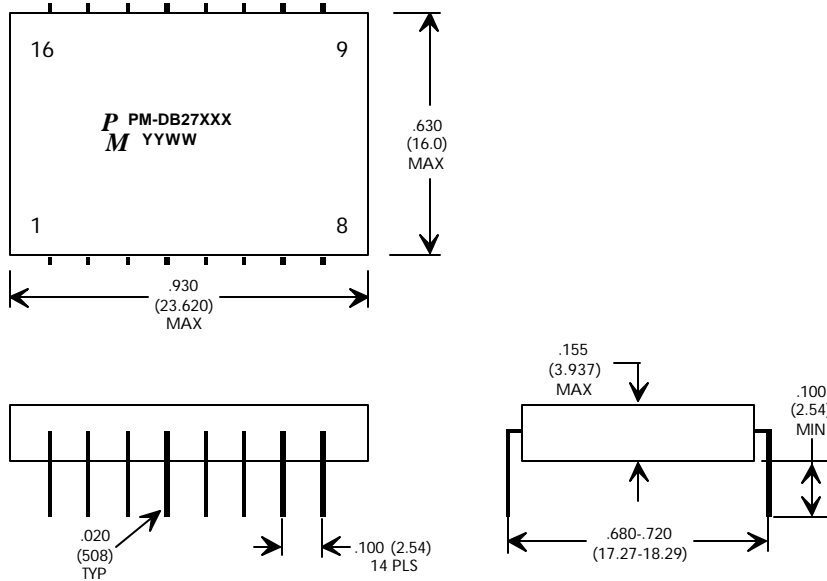
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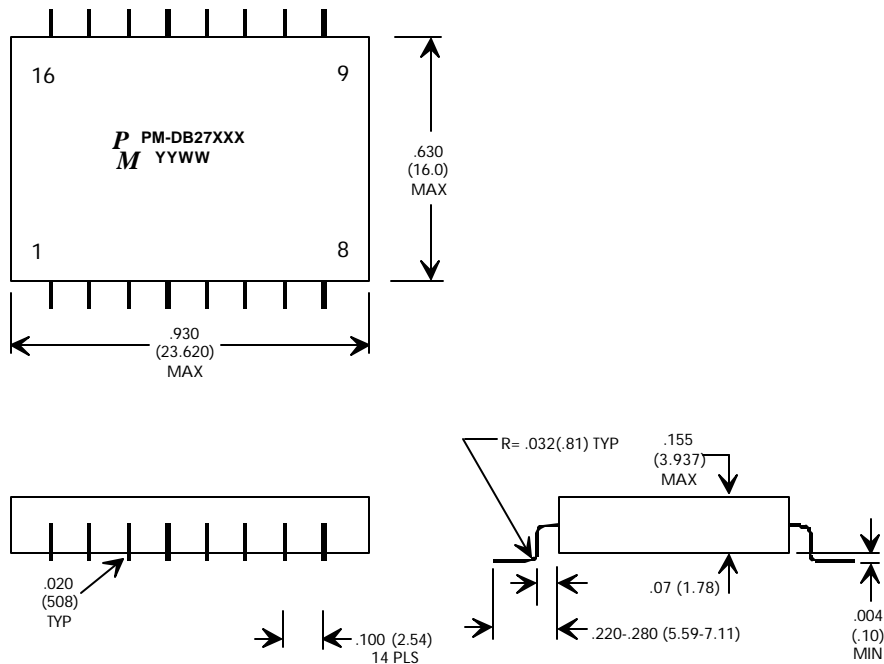


**MIL-STD-1553  
DATABUS INTERFACE  
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**FIGURE # R**



**FIGURE # S**



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**MIL-STD-1553  
DATABUS INTERFACE  
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**FIGURE # T**

