

Bondable Resistors for Transducers – Selection Chart

N2B Balco resistors are available in our LT02 and LT06 sizes.

N2T Nickel resistors are available in our LT02, LT06, LT09 and LT10 sizes. The standard resistance values for each are as shown. Custom resistance values are available for a small set-up charge and 500-piece minimum order.

Resistance tolerance is $\pm 1\%$ at $+75^\circ\text{F}$ ($+24^\circ\text{C}$).

Recommended Uses:

- span-shift-versus-temperature compensation
- temperature sensing



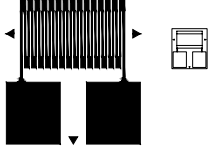

Construction

Fixed pattern resistors are normally manufactured and stocked with E5 encapsulation as standard. Solder tabs are left exposed for leadwire connections.

Examples:

N2B-TR-LT06-00200/E5, N2T-TR-LT02-00250/E5.

Resistance tolerance on Option E5 versions is $\pm 1\%$ at $+75^\circ\text{F}$ ($+24^\circ\text{C}$).

GAGE PATTERN AND DESIGNATION Matrix is shown at actual size. Insert Desired Resistors Size in Spaces Marked XX.		STANDARD RESISTANCE RANGE IN OHMS	DIMENSIONS																			
			PATTERN		MATRIX																	
			Length	Width	Length	Width																
<p>LT02</p>  <p>LT06</p> 	<p>Nickel options: N2T-TR-LTXX-00150 N2T-TR-LTXX-00175 N2T-TR-LTXX-00200 N2T-TR-LTXX-00250 N2T-TR-LTXX-00300 N2T-TR-LTXX-00400 N2T-TR-LTXX-00600 N2T-TR-LTXX-00650 N2T-TR-LTXX-00700</p> <p>Balco options: N2B-TR-LTXX-00150 N2B-TR-LTXX-00175 N2B-TR-LTXX-00200 N2B-TR-LTXX-00250 N2B-TR-LTXX-00300 N2B-TR-LTXX-00400 N2B-TR-LTXX-00600 N2B-TR-LTXX-00650 N2B-TR-LTXX-00700</p>	15	<p>LT02</p> <table border="1"> <tr> <td>0.24</td> <td>0.13</td> <td>0.30</td> <td>0.19</td> </tr> <tr> <td>6.1</td> <td>3.2</td> <td>7.5</td> <td>4.7</td> </tr> </table> <p>LT06</p> <table border="1"> <tr> <td>0.19</td> <td>0.13</td> <td>0.24</td> <td>0.18</td> </tr> <tr> <td>4.8</td> <td>3.3</td> <td>6.1</td> <td>4.6</td> </tr> </table> <p>RoHS compliant.</p>				0.24	0.13	0.30	0.19	6.1	3.2	7.5	4.7	0.19	0.13	0.24	0.18	4.8	3.3	6.1	4.6
		0.24					0.13	0.30	0.19													
		6.1					3.2	7.5	4.7													
		0.19					0.13	0.24	0.18													
		4.8					3.3	6.1	4.6													
		17.5																				
		20																				
		25																				
		30																				
		40																				
60																						
65																						
70																						
<p>LT09</p>  <p>LT10</p> 	<p>Nickel options: N2T-TR-LTXX-00100 N2T-TR-LTXX-00125 N2T-TR-LTXX-00150 N2T-TR-LTXX-00200 N2T-TR-LTXX-00225 N2T-TR-LTXX-00300 N2T-TR-LTXX-00400 N2T-TR-LTXX-00450 N2T-TR-LTXX-00500 N2T-TR-LTXX-00600 N2T-TR-LTXX-00720 N2T-TR-LTXX-00800 N2T-TR-LTXX-00900</p>	10	<p>LT09</p> <table border="1"> <tr> <td>0.12</td> <td>0.11</td> <td>0.13</td> <td>0.12</td> </tr> <tr> <td>3.0</td> <td>2.7</td> <td>3.3</td> <td>3.0</td> </tr> </table> <p>LT10</p> <table border="1"> <tr> <td>0.08</td> <td>0.07</td> <td>0.09</td> <td>0.07</td> </tr> <tr> <td>2.1</td> <td>1.8</td> <td>2.5</td> <td>1.9</td> </tr> </table> <p>RoHS compliant.</p>				0.12	0.11	0.13	0.12	3.0	2.7	3.3	3.0	0.08	0.07	0.09	0.07	2.1	1.8	2.5	1.9
		0.12					0.11	0.13	0.12													
		3.0					2.7	3.3	3.0													
		0.08					0.07	0.09	0.07													
		2.1					1.8	2.5	1.9													
		12.5																				
		15																				
		20																				
		22.5																				
		30																				
40																						
45																						
50																						
60																						
72																						
80																						
90																						

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GAGE PATTERN AND DESIGNATION Actual size shown on right Insert Desired S-T-C No. in Spaces Marked XX. See Note 1	RESISTANCE IN OHMS		DIMENSIONS			
			PATTERN		MATRIX	
			Length	Width	Length	Width
 N2B-TR-C11-00050 N2B-TR-C12-00100 N2B-TR-C12-00200 N2B-TR-C13-00400 N2B-TR-C13-00800	Before Cut 5 10 20 40 80	After Cut 12 24 48 96 192	0.30	0.20	0.34	0.23
			7.6	5.1	8.6	5.9
 N2F-TR-D01-00005 N2B-TR-D01-00060 N2A-XX-D01-00180 EA-XX-D01-00360 N2K-XX-D01-00500/DP N2K-XX-D01-00750/DP	0.5 6 18 36 50 75		0.35	0.14	0.41	0.20
			8.9	3.6	10.4	5.1
 N2F-TR-E01-00005 N2A-XX-E01-00060 N2A-XX-E01-00180 EA-XX-E01-00360 N2K-XX-E01-00500/DP N2K-XX-E01-00750/DP	0.5 6 18 36 50 75		0.35	0.30	0.41	0.36
			8.9	7.6	10.4	9.1
 N2A-XX-H21-00025 N2A-XX-H21-00060 N2B-TR-H22-00010	2.5 6.0 1.0		0.15	0.29	0.21	3.5
			3.8	7.4	5.3	8.9

RESISTANCE WIRE

While wire does not track the temperature of the strain gages as closely as bondable resistors, there are instances where bondable resistors cannot be used due to limited mounting space. Micro-Measurements stocks two types of resistance wire alloys.

CATALOG NO./ WIRE ALLOY	QTY PER SPOOL	RESISTANCE PER FT (M) NOMINAL	TCR [-10° TO +50°C]	INSULATION	TEMPERATURE RANGE
137-HWN/Manganin	200 ft [61m]	14Ω (46Ω)	± 0.0011%/°F [± 0.002%/°C]	Enamel	+15° to +120°F [-10° to +50°C] (up to +175°F [+80°C] if proper aging is done)
142-JWN/Balco	500 ft [152m]	19Ω (62Ω)	+0.25%/°F [+0.45%/°C]	Enamel	-15° to +300°F [-10° to +150°C]

NOTE 1: All products are RoHS compliant.



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