

Model Number 1903-02A	STRAIN GAGE SIDE FORCE LOAD CELL	Revision: F ECN #: 49055
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	<u>ENGLISH</u>	<u>SI</u>	
Performance			
Measurement Range	100 lbf	445 N	[4]
Sensitivity(10 %)	1.3 mV/V	1.3 mV/V	[5]
Non-Linearity	≤ 0.10 % FS	≤ 0.10 % FS	
Hysteresis	≤ 0.10 % FS	≤ 0.10 % FS	
Non-Repeatability	≤ 0.02 %RO	≤ 0.02 %RO	
Environmental			
Overload Limit	150 lbf	667 N	
Temperature Range(Operating)	-65 to +200 °F	-54 to +93 °C	
Temperature Range(Compensated)	+70 to +170 °F	+21 to +77 °C	
Temperature Effect on Output(Maximum)	± 0.002 %Reading/°F	± 0.0036 %Reading/°C	[3]
Temperature Effect on Zero Balance(Maximum)	± 0.001 %FS/°F	± 0.0018 %FS/°C	[3]
Electrical			
Bridge Resistance	2000 Ohm	2000 Ohm	[1]
Excitation Voltage(Recommended)	10 VDC	10 VDC	[2]
Insulation Resistance	>5x10 ⁹ Ohm	>5x10 ⁹ Ohm	
Zero Balance	≤ 1 % FS	≤ 1 % FS	
Output Polarity(Tension)	Negative	Negative	
Physical			
Size (Height x Diameter)	1.25 in x 1.50 in	31.75 mm x 38.1 mm	[6]
Weight	0.30 lb	0.13 kg	
Mounting Thread	#4-40 Female	No Metric Equivalent	
Housing Material	Aluminum	Aluminum	
Sensing Element	Strain Gage	Strain Gage	
Deflection at Full Scale Capacity	0.004 in	0.12 mm	
Electrical Connector	pigtail ends	pigtail ends	
Electrical Connection Position	Bottom	Bottom	

OPTIONAL VERSIONS

Optional versions have identical specifications and accessories as listed for the standard model except where noted below. More than one option may be used.

NOTES:

[1] Nominal.
 [2] Calibrated at 10 VDC, usable 3 to 20 VDC or VAC RMS.
 [3] Over compensated operating temperature range.
 [4] FS - Full Scale.
 [5] RO - Rated Output.
 [6] See Outline Drawing 58830 for Complete Dimensions.

Entered: LK	Engineer: PE	Sales: RB	Approved: JSD	Spec Number:
Date: 1/23/2019	Date: 1/23/2019	Date: 1/23/2019	Date: 1/23/2019	59501



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*All specifications are at room temperature unless otherwise specified.
 In the interest of constant product improvement, we reserve the right to change specifications without notice.*