



## FS19

### Force Load Cell

#### SPECIFICATIONS

- ◆ All stainless steel construction
- ◆ Small compression load 500G to 3000G range
- ◆ High sensitivity 20 mV/V
- ◆ Non-linearity +/-1% FS
- ◆ Flex cable for tight space

The FS19 load cell, with ranges from 500G to 3000G, uses proven Microfused sensor technology derived from demanding aerospace and automotive applications which employs micro-machined piezoresistive strain gages fused with high temperature glass to a high performance stainless steel force measuring flexure. This sensing technology eliminates age-sensitive organic epoxies used in traditional load cell designs, providing excellent long term stability. This high sensitivity strain gage allows the load cell to produce 20 mv/V output with low strains and deflection, thus long endurance in the smallest package. The flexure is precisely machined to produce excellent consistency from part to part. Typical applications range from medical devices to appliances and exercise equipment.

#### FEATURES

- ◆ Small size
- ◆ High sensitivity
- ◆ High overload
- ◆ Low deflection
- ◆ Long life
- ◆ Low cost

#### APPLICATIONS

- ◆ Infusion Pumps
- ◆ Load Sensing
- ◆ Contact Sensing
- ◆ Weighing
- ◆ Household Appliances



**PERFORMANCE SPECIFICATIONS**

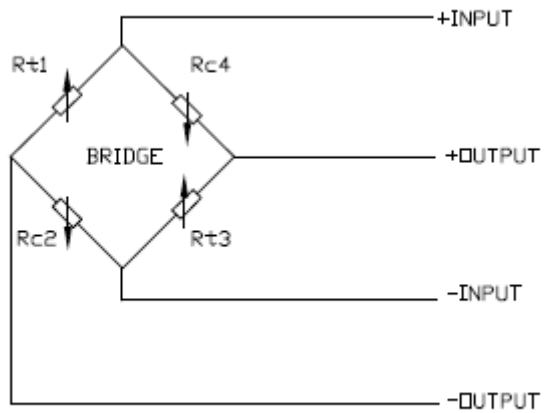
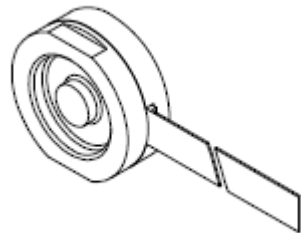
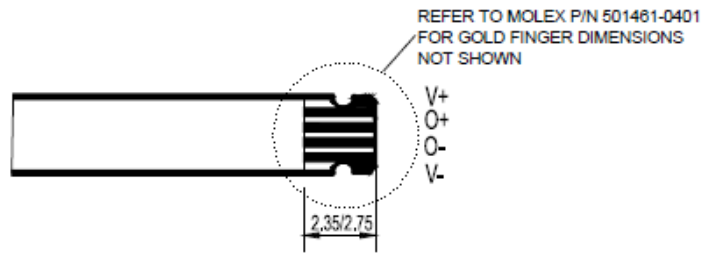
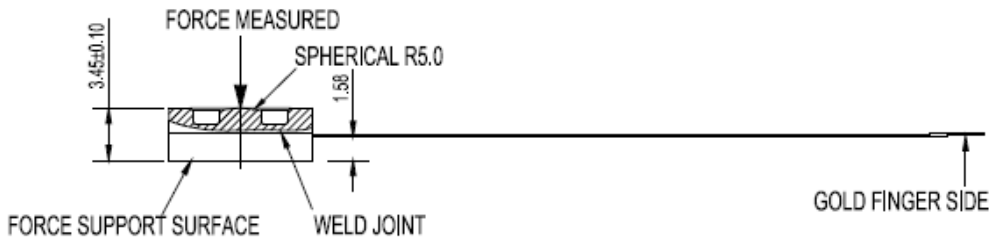
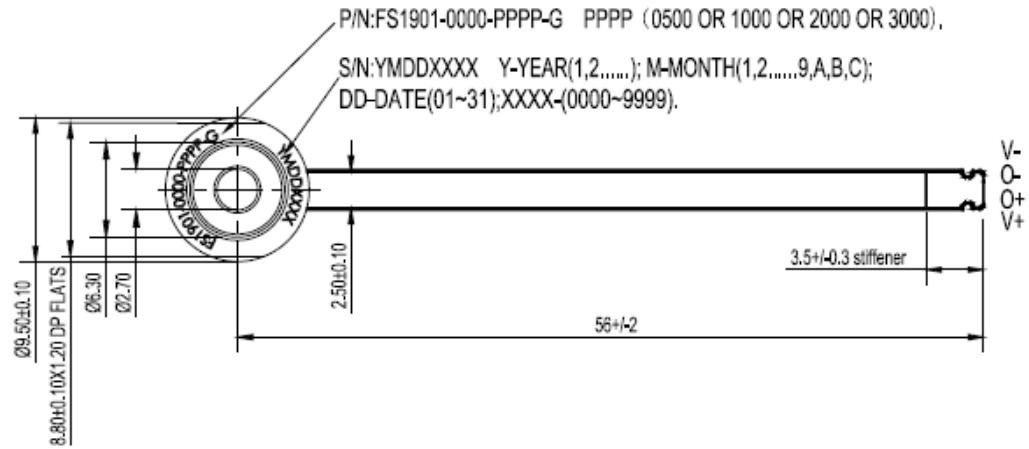
All specifications are at 25°C except where indicated.

<b>PARAMETER</b>	<b>MIN</b>	<b>TYP</b>	<b>MAX</b>	<b>UNITS, NOTES</b>
Force Range	500/1000/2000/3000			G
Excitation Voltage	2	5	10	VDC
Sensitivities (FSO)	14	20	26	mV/V, Ratiometric to excitation voltage
Non-Linearity	-1		1	%FSO
Hysteresis	-1		1	%FSO
Zero Offset	-9		+9	mV/V, Ratiometric to excitation voltage
Operating Temperature	0		40	°C
Storage Temperature	-40		85	°C
Humidity	0		95	% RH
Safe Load Limit			2x	Rated load
Insulation	50			Meg ohms at 250 VDC
Deflection			0.020	mm at rated load
Input Resistance	1.50K	2.15K	2.80K	Ω
Output resistances	1.50K	2.15K	2.80K	Ω
Thermal Error – Sensitivities	-0.05		+0.05	%FSO / °C
Thermal Error –Zeros	-0.5		+0.5	%FSO / °C
Response Time			1	ms
ESD			±15	KV, 10 discharges qualified per IEC
Weight		1.1		gram
Weather Proof	No protection, Not rated			

**FS19**

Force Load Cell

**DIMENSIONS (mm)**



**ORDERING INFORMATION**

FS1901	-	0000	-	1000G
<b>Model</b>	-	<b>0000</b>	-	<b>Force Range</b>
<b>FS1901</b>	-	0000	-	<b>0500G 1000G 2000G 3000G</b>

**NORTH AMERICA**

Measurement Specialties, Inc.,  
a TE Connectivity Company  
Tel: 1-800-522-6752  
Email : [customercare.lcsb@te.com](mailto:customercare.lcsb@te.com)

**EUROPE**

MEAS France SAS,  
a TE Connectivity company  
Tel: +33 (0) 800-440-5100  
Email : [customercare.lcsb@te.com](mailto:customercare.lcsb@te.com)

**ASIA**

Measurement Specialties (China), Ltd.,  
a TE Connectivity Company  
Tel: +86 400-820-6015  
Email: [customercare.shzn@te.com](mailto:customercare.shzn@te.com)

**TE.com/sensorsolutions**

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2015 TE Connectivity Ltd. family of companies All Rights Reserved.