



FS19

Force Load Cell

SPECIFICATIONS

- All stainless steel construction
- Small compression load 350G to 3000G range
- High sensitivity 20 mV/V
- Non-linearity +/-1% FS
- Flex cable for tight space

The **FS19** load cell, with ranges from 350G 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.

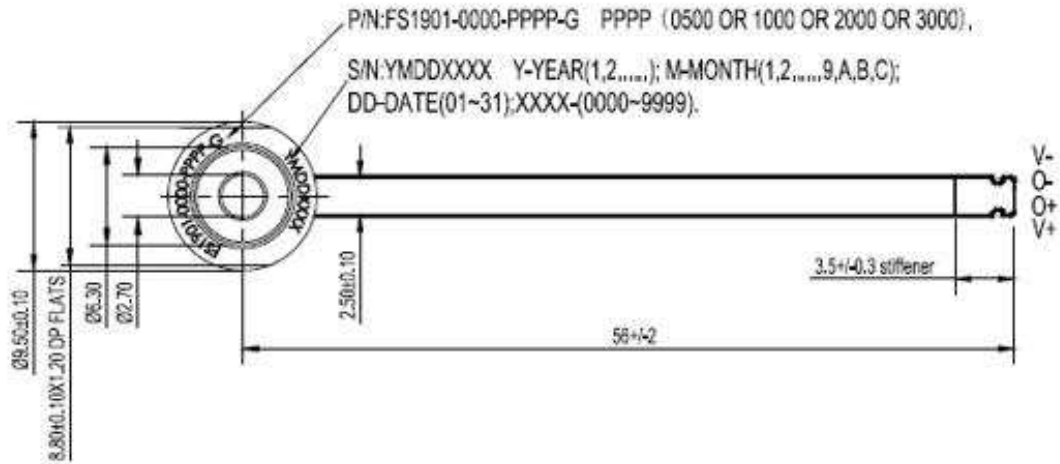
| PARAMETER | MIN | TYP | MAX | UNITS, NOTES |
|-------------------------------|------------------------|-------|-------|---|
| Force Range | 350/500/1000/2000/3000 | | | G |
| Excitation Voltage | 2 | 5 | 10 | VDC |
| Sensitivities (FSO) | 14 | 20 | 26 | mV/V, Ratiometric to excitation voltage |
| Non-Linearity | -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 | | IP43 | | |

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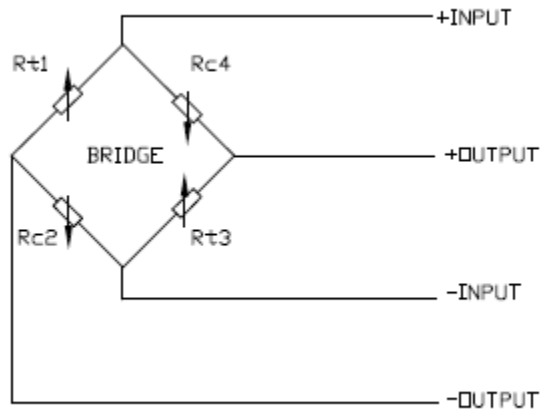
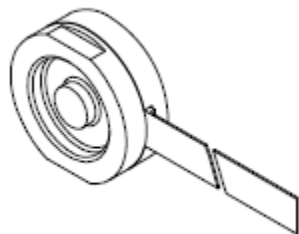
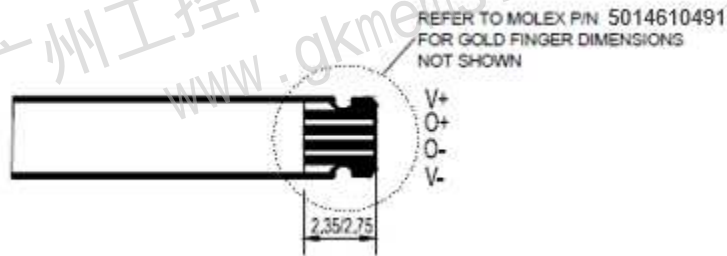
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DIMENSIONS (mm)



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ORDERING INFORMATION

| | | | | |
|---------------|---|-------------|---|--|
| FS1901 | - | 0000 | - | 1000G |
| Model | - | 0000 | - | Force Range |
| FS1901 | - | 0000 | - | 0350G 0500G 1000G 2000G 3000G |

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