

## Model 101

### Load Cell



#### DESCRIPTION

Model 101 load cells is engineered to measure bending forces and still achieve an impressive 0.02 % accuracy. Small dimensions allow easy unit integration into existing systems. Model 101 uses foil gages and is available for load ranges from 50 grams to 1000 pounds.

#### FEATURES

- 50 kg to 1000 kg range
- $\pm 0.02$  % accuracy
- Integral cable
- Cost efficient
- One-piece, nickel-plated alloy steel construction

# Model 101

## PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Load ranges <sup>3</sup>	50, 100, 250, 500, 1000 kg
Accuracy	±0.02 % full scale
Output	2 mV/V (nominal)
Creep (max.)	±0.02 % full scale (30 minutes)

## ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	-30 °C to 70 °C [-22 °F to 158 °F]
Temperature, compensated	-20 °C to 55 °C [-4 °F to 130 °F]
Temperature effect, zero	0.02 % full scale/10 °C
Temperature effect, span	0.02 % full scale/10 °C

## ELECTRICAL SPECIFICATIONS

Characteristic	Measure
Strain gage type	Bonded foil
Excitation (calibration)	10 Vdc to 12 Vdc
Excitation (max.)	15 Vdc
Insulation resistance	≥5000 mOhm
Bridge resistance (tolerance) - input resistance	400 ohm ±10 ohm (nominal)
Bridge resistance (tolerance) - output resistance	352 ohm ±2 ohm (nominal)
Zero balance (tolerance)	±1 % full scale
Electrical termination (std)	3 m flying leads

## MECHANICAL SPECIFICATIONS

Characteristic	Measure
Maximum allowable load	150 % full scale <sup>1</sup>
Material	Nickel plated alloy steel
Deflection	≤ 2 mm

## WIRING CODES

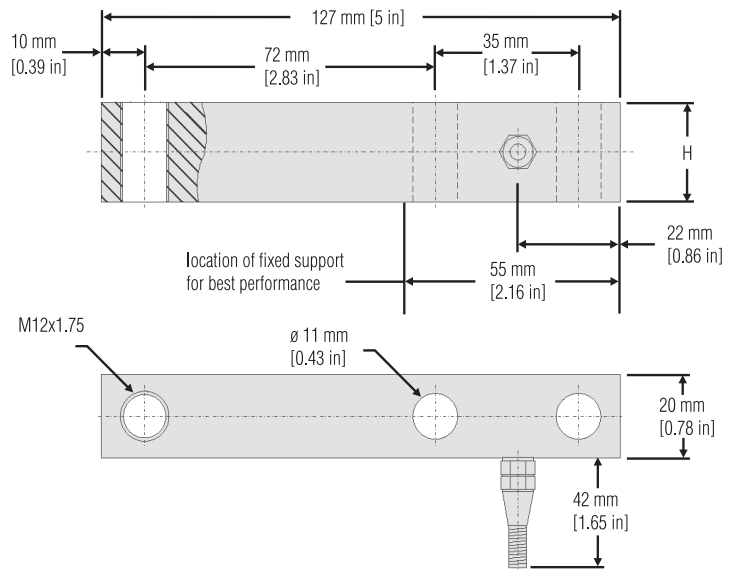
Cable	
Red	(+) supply
Black	(-) supply
Green	(+) output
White	(-) output
Large black	shield

## RANGE CODES

Range Codes	Range
LF	50 kg
LH	100 kg
LL	250 kg
LN	500 kg
LQ	1000 kg

## MOUNTING DIMENSIONS

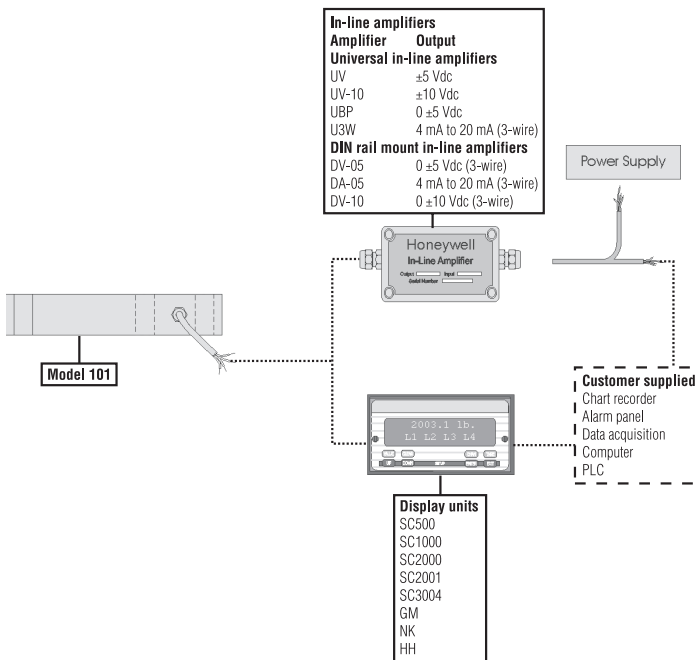
Load (kg)	H mm [in]	Recommended bolt torque (N-m)
50 to 2250	18 [0.71]	60
500, 1000	24 [0.94]	60



## NOTES

1. Allowable maximum loads – maximum load to be applied without damage<sup>2</sup>.
2. Without damage - loading to this level will not cause excessive zero shift of performance degradation. The user must consider fatigue life for long term use and structural integrity. All structurally critical applications (overhead loading, etc.) should always be designed with safety redundant load paths.
3. This unit is calibrated to Metric (non-Imperial) units.

## TYPICAL SYSTEM DIAGRAM



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While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

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### **⚠ WARNING** **PERSONAL INJURY**

- DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

### **⚠ WARNING** **MISUSE OF DOCUMENTATION**

- The information presented in this catalogue is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

**Failure to comply with these instructions could result in death or serious injury.**