### Honeywell

# **Model 123**

## Load Cell



#### **DESCRIPTION**

The Model 123 load cells combines both a compact form and high precision to offer a superior tension force transducer. The one-piece S-shaped design achieves a maximum non-linearity of 0.03 % full scale for load ranges from 1000 kg to 20000 kg.

#### **FEATURES**

- 1000 kg to 20000 kg range
- ±0.03 % accuracy
- Built-in overload resistance
- One-piece, nickel-plated alloy steel construction
- Integral cable
- Cost efficient

### **Model 123**

#### PERFORMANCE SPECIFICATIONS

Characteristic	Measure	
Load ranges <sup>4</sup>	1000 kg to 20000 kg	
Accuracy	±0.03 % full scale	
Output	2.0 mV/V	
Creep (max.)	±0.03 % 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 131 °F]	
Temperature effect, zero	±0.03 % full scale/10 °C	
Temperature effect, span	±0.03 % full scale/10 °C	
Protection class	IP67 <sup>3</sup>	

#### **ELECTRICAL SPECIFICATIONS**

Characteristic	Measure	
Strain gage type	Foil	
Excitation (acceptable)	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)	6 m [19.69 ft] of 5 mm [0.2 in] diameter cable	

#### **MECHANICAL SPECIFICATIONS**

Characteristic	Measure	
Maximum allowable load	120 % full scale <sup>1</sup>	
Later load limit	100 % full scale	
Material	Nickel plated alloy steel	

#### **WIRING CODES**

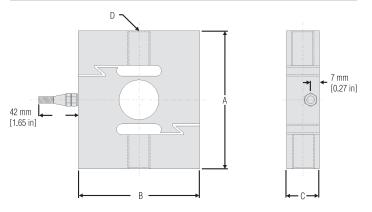
Cable	
Red	(+) supply
Black	(-) supply
Green	(+) output
White	(-) output
Large Black	Shield

#### **RANGE CODES**

Range codes	Range
LQ	1000 kg
LR	1500 kg
LS	2000 kg
LT	3000 kg
LU	5000 kg
LV	7500 kg
LW	10000 kg
LY	15000 kg
LZ	20000 kg

#### **MOUNTING DIMENSIONS**

Range (kg)	Α	В	С	D
1000, 1500	80 mm [3.15 in]	70 mm [2.76 in]	25 mm [0.98 in]	M12 x 1.75
2000, 3000, 5000	108 mm [4.25 in]	95 mm [3.75 in]	25 mm [0.98 in]	M18 x 1.5
7500, 10000	178 mm [7.00 in]	130 mm [5.12 in]	51 mm [2.0 in]	M30 x 2
15000, 20000	190 mm [7.48 in]	160 mm [6.3 in]	60 mm [2.36 in]	M30 x 2

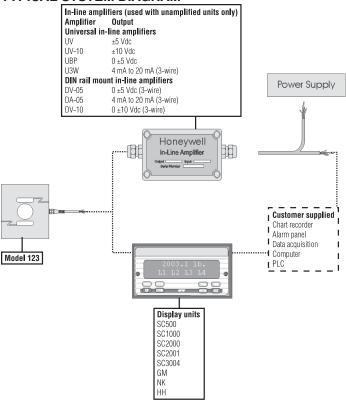


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#### **NOTES**

- Allowable maximum loads maximum load to be applied without damage.<sup>2</sup>
- Without damage loading to this level will not cause excessive zero shift or 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. IP68 rating for load ranges 7500 kg and greater.
- 4. This unit is calibrated to Metric (non-Imperial) units.

#### TYPICAL SYSTEM DIAGRAM



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