Honeywell

Model 6443

X-Y Force Sensor

DESCRIPTION

The X-Y force sensor is constructed of two strain gage bridges, mounted at 90°, isolated by a flexure system. The complete two-component system, including flexures, is machined from one specially prepared metal billet to provide unusual structure strength and to minimize crosstalk between the two transducers. This unique sensor has excellent linearity characteristics and maximum structure life.

FEATURES

- Compact size
- 0.1 % linearity and hysteresis, respectively
- Simultaneous dual-axis readings
- Minimal crosstalk

Model 6443

PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Load range	6443 (1000 lb X, 500 lb Y) 6443-105 (2000 lb X, 500 lb Y) 6443-106 (1500 lb X, 500 lb Y)
Non-linearity	±0.1 % of rated output
Hysteresis	±0.1 % of rated output
Repeatability	±0.05 % of rated output
Output @ rated capacity	2 mV/V ±0.25 % (nominal)
Operation	Tension/compression
Resolution	Infinite
Standard calibration	Tension (+) and compression (-)[1]

ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	-54 °C to 93 °C [-65 °F to 200 °F]
Temperature, compensated	21 °C to 77 °C [70 °F to 170 °F]
Temperature effect, zero	±0.002 % of rated output/°F
Temperature effect, output	±0.002 % of reading/°F

ELECTRICAL SPECIFICATIONS

Characteristic	Measure
Strain gage type	Foil
Excitation (maximum)	20 Vdc or Vac RMS
Insulation resistance	> 5000 mOhm @ 50 Vdc
Bridge resistance (tolerance)	350 ohm
Crosstalk	1 % of full scale
Zero balance	±1.0 %
Electrical termination	MS-3102E-14S-5P (2)

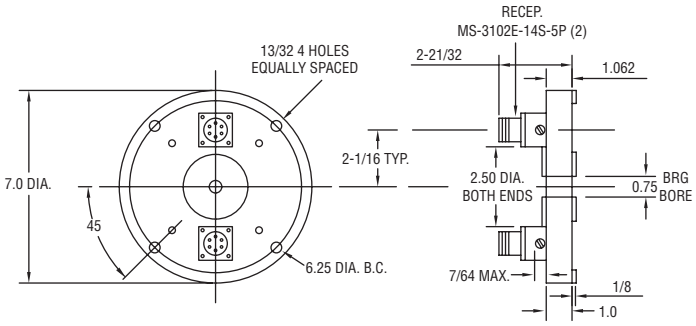
MECHANICAL SPECIFICATIONS

Characteristic	Measure
Safe overload capacity	150 % of rated capacity
Material	Carbon steel

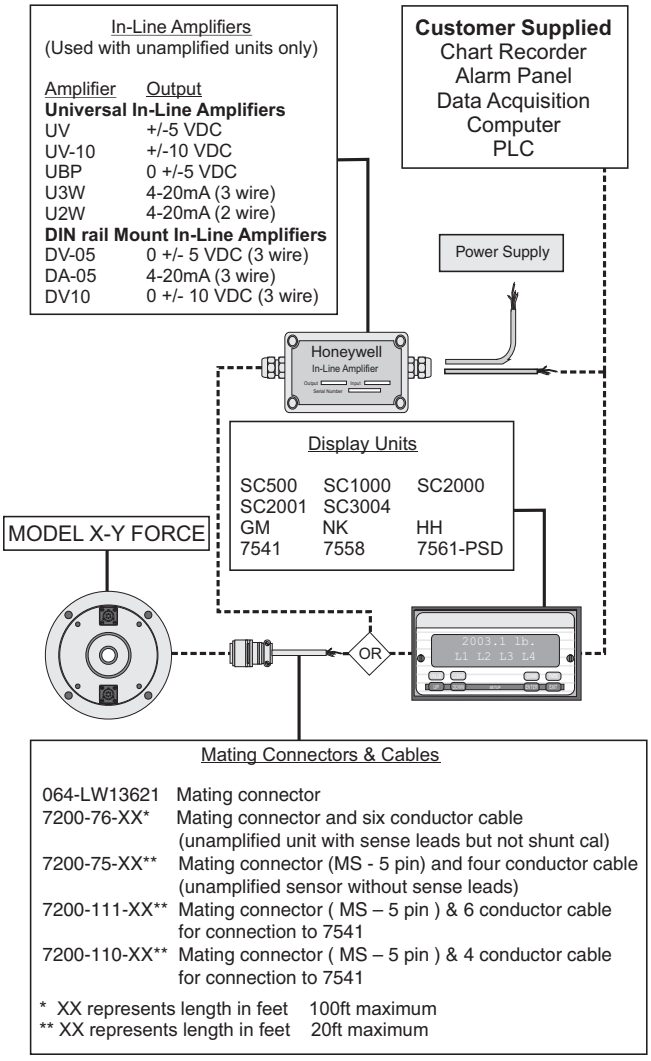
RANGE CODES

Wire	
Red	(+) excitation
Black	(-) excitation
Green	(+) output
White	(-) output

MOUNTING DIMENSIONS



TYPICAL SYSTEM DIAGRAM



NOTES

1. Standard calibration for tension/compression load cells is in tension only.

Warranty. Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

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.

For more information about Sensing and Control products, visit www.honeywell.com/sensing or call +1-815-235-6847
Email inquiries to info.sc@honeywell.com

⚠ 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.

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