

## Model S3C DC-DC



## Miniature Displacement Transducer

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### DESCRIPTION

Model S3C (captive guided spring return armature) dc-dc miniature displacement transducer is ideally suited for multi-point applications with space constraints and provide a cost-effective

alternative to larger, more expensive units. This model is compatible with dc data logging equipment used for taking readings from strain gages or other dc operated transducers.

### FEATURES

- Miniature design
- Cost efficient
- 0.25 % non-linearity
- Stainless steel construction
- $\pm 0.1$  in to  $\pm 0.4$  in range
- Infinite resolution
- Single or dual supply wiring (field selectable)
- Captive guided spring return armature
- Not RoHS compliant

# Model S3C DC-DC

## PERFORMANCE SPECIFICATIONS

| Characteristic       | Measure                                      |
|----------------------|----------------------------------------------|
| Stroke range         | ±2,54 mm to 10,16 mm [±0.1 in to 0.4 in]     |
| Non-linearity (max.) | ±0.25 % full scale                           |
| Output impedance     | 2 ohm                                        |
| Output load (min.)   | 2000 ohm                                     |
| Output sensitivity   | ±5 Vdc or 0 Vdc to 10 Vdc (field selectable) |
| Resolution           | Infinite                                     |

## ENVIRONMENTAL SPECIFICATIONS

| Characteristic                  | Measure                            |
|---------------------------------|------------------------------------|
| Temperature, operating          | -50 °C to 70 °C [-58 °F to 158 °F] |
| Temperature effect, zero (max.) | 0.006 % full scale/°F              |
| Temperature effect, span (max.) | 0.017 % full scale/°F              |

## ELECTRICAL SPECIFICATIONS

| Characteristic         | Measure                                       |
|------------------------|-----------------------------------------------|
| Element type           | dc-dc displacement transducer                 |
| Power supply, single   | 24 Vdc to 40 Vdc @ 30 mA                      |
| Power supply, dual     | ±12 Vdc to ±20 Vdc @ 30 mA                    |
| Electrical termination | Multiconductor shielded cable (1.83 m [6 ft]) |

## MECHANICAL SPECIFICATIONS

| Characteristic | Measure                      |
|----------------|------------------------------|
| Case material  | Stainless steel              |
| Probe material | Stainless steel              |
| Armature type  | Captive guided spring return |
| Probe thread   | Not applicable               |
| Weight         | 82,5 g [2.91 oz]             |

## RANGE CODES

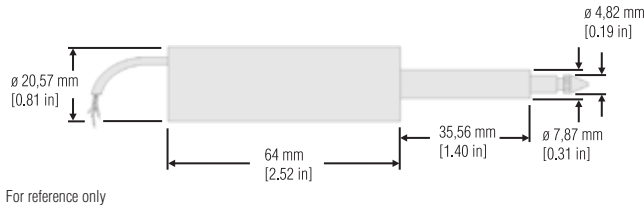
| Range Code | Available ranges    |
|------------|---------------------|
| HM         | ±2,54 mm [±0.1 in]  |
| HN         | ±5,08 mm [±0.2 in]  |
| HF         | ±7,62 mm [±0.3 in]  |
| HG         | ±10,16 mm [±0.4 in] |

## OPTION CODES

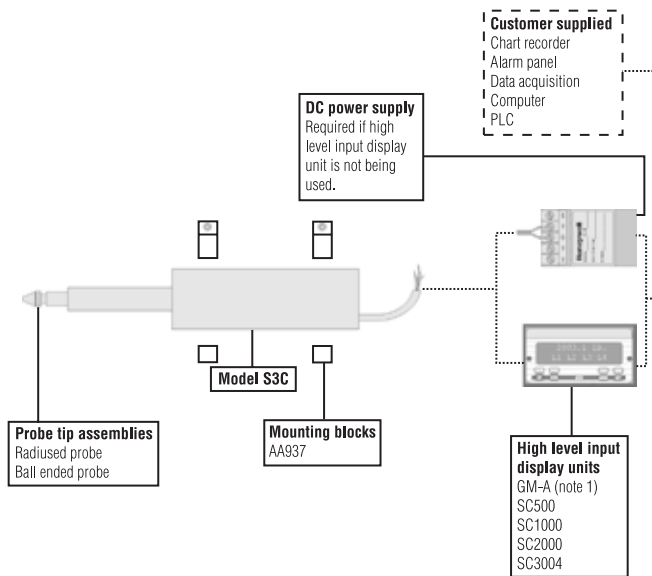
| Range Code                   | Many range/option combinations are available in our quick-ship and fast-track manufacture programs. Please see <a href="http://sensing.honeywell.com/TMsensor-ship">http://sensing.honeywell.com/TMsensor-ship</a> for updated listings. |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stroke ranges                | ±5,08 mm [±0.2 in], ±2,54 mm [±0.1 in], ±7,62 mm [±0.3 in], ±10,16 mm [±0.4 in]                                                                                                                                                          |
| Electrical termination       | Multiconductor shielded cable (1.83 m [6 ft])<br>6a. Bendix PTIH-10-6P right angle Bendix                                                                                                                                                |
| Electrical cable orientation | Ra. Right angle                                                                                                                                                                                                                          |
| Mounting threads             | 13a. 1/2-20 UNF<br>13f. 3/8-32 UNF                                                                                                                                                                                                       |
| Improved linearity           | L10. 0.1 % on some models                                                                                                                                                                                                                |

## Miniature Displacement Transducer

### MOUNTING DIMENSIONS



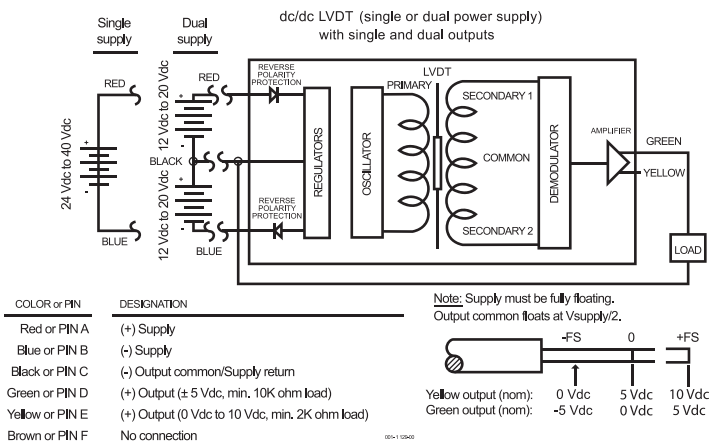
### TYPICAL SYSTEM DIAGRAM



### WIRING CODES

| Wire color | Dual supply          | Single supply (floating)* | Outputs     |
|------------|----------------------|---------------------------|-------------|
| Red        | 12 V to 20 V input   | 24 V to 40 V input        | –           |
| Blue       | -12 V to -20 V input | Supply negative           | –           |
| Black      | OV, I/P, O/P common  | –                         | –           |
| Yellow     | –                    | –                         | 0 V to 10 V |
| Green      | –                    | –                         | ±5 Vdc      |

\* Output common floats at voltage source/2



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## NOTES

1. GM-A should not be used with an amplified displacement transducer unless using an external power supply to power the displacement transducer.

## Find out more

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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.

## 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 datasheet 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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