

Model SSD DC-DC

Sub-Sea Displacement Transducer



DESCRIPTION

Model SSD dc-dc displacement transducer is offered in ranges from ± 0.5 in up to ± 4.0 in stroke length. The oceanographic type of electrical plug allows the connection to be made underwater. This Sub-Sea displacement sensor is pressure rated to operate down to a depth of 7500 feet in sea water. The body of the sen-

sor is made from 316 SS with all-welded construction. Honeywell offers in-line amplifiers and digital indicators that provide ± 5 Vdc, 10 Vdc or 4 mA to 20 mA and RS-232 outputs with zero and span adjustments.

FEATURES

- ± 1.0 % non-linearity
- Submersible
- All welded 316 stainless steel construction
- Easy to operate
- Up to 2286 m [7500 ft] depth
- $\pm 12,7$ mm to 101,6 mm range [± 0.5 in to ± 4.0 in range]
- Infinite resolution
- Single or dual supply wiring (field selectable)
- Reverse polarity protected
- Not RoHS compliant

Model SSD DC-DC

PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Stroke range	±12,7 mm to 101,6 mm [±0.5 in to 4 in]
Non-linearity (max.)	±1.0 % full scale
Output sensitivity	±5 Vdc
Resolution	Infinite

ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	-40 °C to 50 °C [-40 °F to 122 °F] (Note: -9 °C to 60 °C [15 °F to 140 °F] on 4 mA to 20 mA)
Temperature effect, zero (max.)	0.005 % full scale/°F
Temperature effect, span (max.)	0.015 % full scale/°F
Operating pressure	3500 psi

ELECTRICAL SPECIFICATIONS

Characteristic	Measure
Element type	dc-dc displacement transducer
Input supply (acceptable) Single floating supply	20 Vdc to 40 Vdc @ 25 mA
Input supply (acceptable) Dual supply	±10 Vdc to 20 Vdc @ 25 mA
Ripple	30 mV peak to peak
Electrical termination	Includes submersible, neoprene, and nickel-aluminum bronze connector molded to 1.83 m [6 ft] of neoprene jacketed 10,2 mm [0.40 in] diameter cable. The electrical connector may be mated under water up to 500 psi or 335,28 m [1100 ft]. Longer cable lengths are available up to 990,6 m [3250 ft]. Consult factory for information.

MECHANICAL SPECIFICATIONS

Characteristic	Measure
Case material	316 stainless steel with all welded construction
Probe material	316 stainless steel with all welded construction
Probe thread	M10 x 1.5

RANGE CODES

Range Code	Available ranges
HP	±12,7 mm [±0.5 in]
HQ	±25,4 mm [±1.0 in]
HR	±50,8 mm [±2.0 in]
HS	±76,2 mm [±3.0 in]
HT	±101,6 mm [±4.0 in]

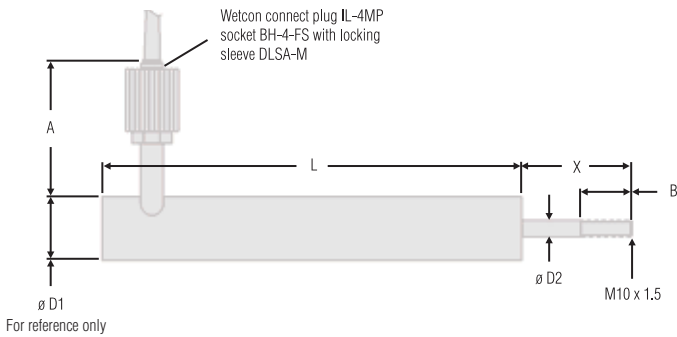
OPTION CODES

Range Code	Many range/option combinations are available in our quick-ship and fast-track manufacture programs. Please see http://sensing.honeywell.com/TMsensor-ship for updated listings.
Stroke ranges	±12,7 mm to 101,6 mm [±0.5 in to 4 in]
Electrical termination	Submersible, neoprene and nickel-aluminum bronze connector molded to 1.83 m [6 ft] of neoprene jacketed cable

Sub-Sea Displacement Transducer

MOUNTING DIMENSIONS

Range code	Available stroke range	L	X	D1	D2	A	B
HP	±12,7 mm [±0.5 in]	223,52 mm [8.8 in]	53,34 mm [2.1 in]	38,1 mm [1.5 in]	9,91 mm [0.39 in]	91,44 mm [3.6 in]	30,48 mm [1.2 in]
HQ	±25,4 mm [±1.0 in]	251,46 mm [9.9 in]	66,04 mm [2.6 in]	38,1 mm [1.5 in]	9,91 mm [0.39 in]	91,44 mm [3.6 in]	30,48 mm [1.2 in]
HR	±50,8 mm [±2.0 in]	345,44 mm [13.6 in]	91,44 mm [3.6 in]	38,1 mm [1.5 in]	9,91 mm [0.39 in]	91,44 mm [3.6 in]	30,48 mm [1.2 in]
HS	±76,2 mm [±3.0 in]	434,34 mm [17.1 in]	116,84 mm [4.6 in]	38,1 mm [1.5 in]	9,91 mm [0.39 in]	91,44 mm [3.6 in]	30,48 mm [1.2 in]
HT	±101,6 mm [±4.0 in]	535,94 mm [21.1 in]	142,24 mm [5.6 in]	38,1 mm [1.5 in]	9,91 mm [0.39 in]	91,44 mm [3.6 in]	30,48 mm [1.2 in]



WIRING CODES

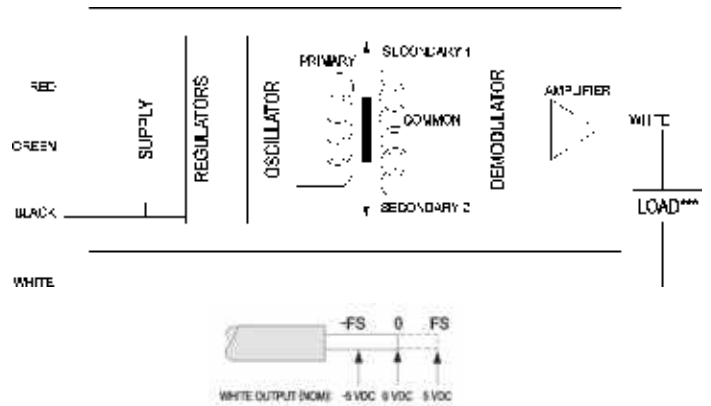
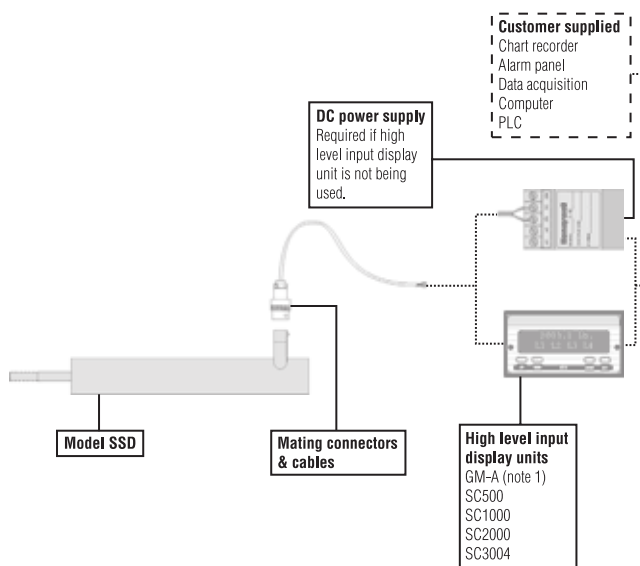
Wire color or pin	Single supply* designation	Dual supply designation
Red or A	20 V to 40 V	10 V to 20 V
Green or B	Supply common	-10 V to -20 V
Black or C	Output common**	0 V common
White or D	Output	Output

* Supply must be fully floating

** Output common floats at V supply/2

Min 2000 ohms with dual supply, 20000 ohms with single supply

TYPICAL SYSTEM DIAGRAM



Model SSD DC-DC

Sub-Sea Displacement Transducer

NOTES

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

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.

Sensing and Control
Automation and Control Solutions
Honeywell
1985 Douglas Drive North
Golden Valley, MN 55422 USA
+1-815-235-6847
www.honeywell.com/sensing

008747-1-EN IL50 GLO
May 2008
Copyright © 2008 Honeywell International Inc. All rights reserved.

Honeywell