

Interactive Catalog Replaces Catalog Pages

Honeywell Sensing and Control has replaced the PDF product catalog with the new **Interactive Catalog**. The **Interactive Catalog** is a power search tool that makes it easier to find product information. It includes more installation, application, and technical information than ever before.



**Click this icon to try the new
Interactive Catalog.**

Sensing and Control
Honeywell Inc.
11 West Spring Street
Freeport, Illinois 61032



ZS-00228-02

ONE PART UNDERWATER PROXIMITY SENSOR

Description :

Environment-proof self-contained proximity sensor enclosed in a rugged hermetically sealed ceramic/stainless steel housing and overmoulded to provide complete encapsulation.

Operation by the Eddy Current Killed Oscillator (ECKO) principle, which is used to detect metallic objects passing in front of the sensing face. Once a target metal is detected, a trigger signal is produced which is then passed through the output conditioning circuitry to give a high or low output, depending on the sensor application.

Features :

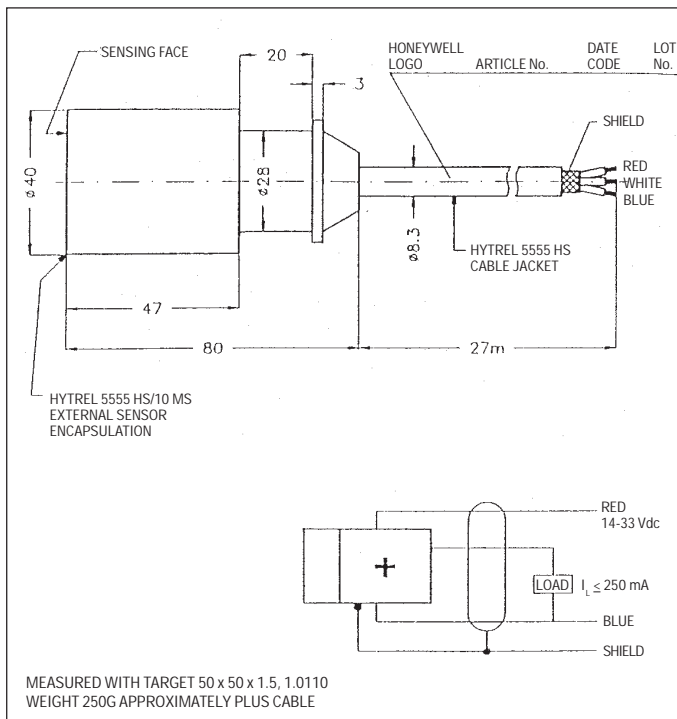
- All metal sensing
- High level sealing by overmoulding
- High performance sealed and shielded cable
- Reverse polarity and short circuit protection

Typical Applications :

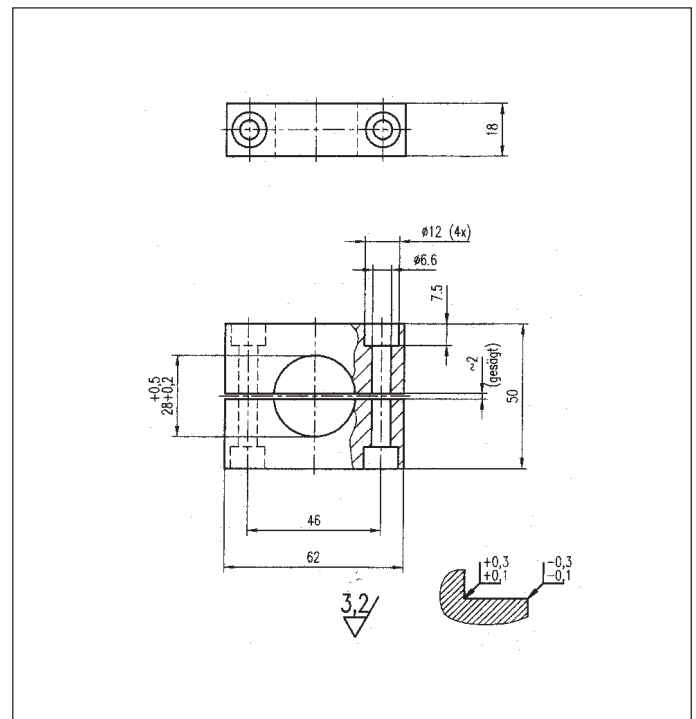
- Submarine control systems
- Submersible vehicles
- Offshore underwater equipment
- Underwater pipeline controls



Dimensions in mm unless otherwise specified (for reference only)



Mounting Bracket (to be ordered separately)



Specifications

Sensing Characteristics :		Level	Specification (Note 1)
Nominal sensing distance		12.7 mm	
Effective sensing distance		11 to 14 mm	
Differential travel		3 to 20 %	
Minimum operating distance		10.3 mm	
Maximum release distance		18.5 mm	
Repeatability		≤ 1 %	
Switching frequency		≥ 500 Hz	
Power on delay		≤ 10 ms	
Electrical Specifications :			
Power Supply -			
Supply voltage		14 to 33 V	
Ripple voltage		≤ 7 V	MIL-STD-1275 A (AT)
Surge voltage		100 V in 50 ms	MIL-STD-1275 A (AT)
Transients		250 V in 50 μs	MIL-STD-1275 A (AT)
Burden current		< 10 mA	
Output -			
On state output voltage		≤ 3 V	
Off state leakage current		≤ 100 μA	
Load current		≤ 200 mA to 65° C lin falling 100 at 100° C	
Reverse polarity protection		yes	
Short circuit protection		yes	
Environmental Specifications :			
Operating temperature range		-30° to +70° C	IEC68-2-1 / IEC 68-2-2
Storage temperature		-40° to +85° C	IEC68-2-1 / IEC 68-2-2
Damp heat, steady state		56 days	IEC68-2-13 Ca
Damp heat, cyclic		6 cycles at 55° C	IEC68-2-30 Db
Temperature shock		-55° C/+85° C, 5 cycles	IEC68-2-14 Na
Vibration		10 to 500 Hz, 0.75/100 ms ⁻²	IEC68-2-6 Fc
Bump		400 ms ⁻² , 6 x 4000 bumps	IEC68-2-29 Eb
Shock		1000 ms ⁻² /6 ms	IEC68-2-27 Ea
Cable termination tensile strength		≥ 40 N	IEC68-2-21 Ua1
Insulation resistance		> 50 MOhm at 500 Vdc	
Insulation voltage		≥ 1000 Vrms at 1 min	
Icing/freezing rain		not affected	521.0 MIL-STD-810D
Leakage (2 hr immersion)		9.0 Mpa	DEF 133, clause 15.3
Immersion, cyclic		100 cycles, 0 to 6.89 Mpa	DG ships 2137
Salt mist		not affected	DEF 133, clause 14.0
Acid corrosion		not affected	DEF 133, clause 14.1
Alkaline corrosion		not affected	DEF 133, clause 14.2
Contamination resistance		Engine and gearbox oils, water, sea water, aviation fuels, ethanol, methanol	DEF 133, clause 14.3
Mean Time Between Failure prediction		144000 hrs at 20° C NU application	MIL-HDBK 217E
Notes : 1. Unless otherwise stated, tested to or by similarity to Honeywell internal specifications			
Ordering guide			
Listing	Description		
ZS-00228-02	Current sourcing		
ZS-00228-999	Mounting bracket		