

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.

These PDF files are no longer being updated and will be removed by January 2001.



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

Sensing and Control

Honeywell Inc.

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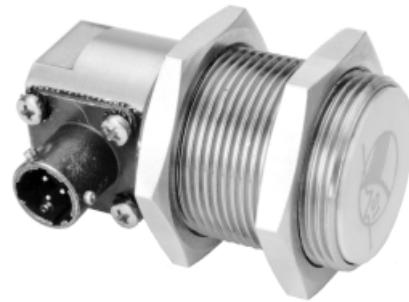
ZS-00240-03B

ONE PART M30 PROXIMITY SENSOR

Description :

Environment-proof self-contained proximity sensor enclosed in a rugged hermetically sealed ceramic/stainless steel housing, designed to meet the requirements of ground mobile and naval applications.

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.



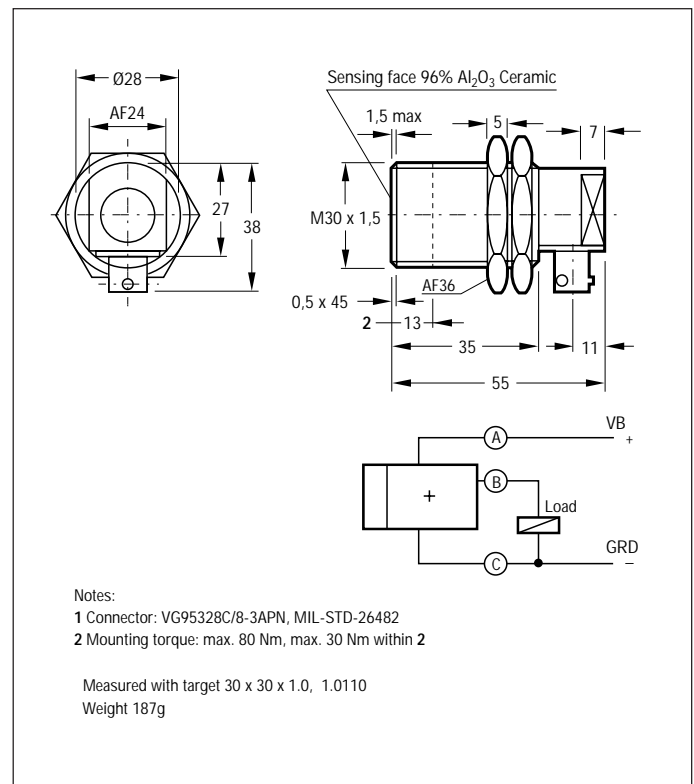
Features :

- All metal sensing
- Rugged M30 housing and connector assembly
- High level of electronics protection

Typical Applications :

- Ammunition loading systems
- Gun turret position control
- Door and hatch open/closed monitoring

Dimensions in mm (for reference only)



Specifications

		Tests	
Sensing Characteristics :		Measuring method (Note 1)	
Nominal sensing distance (mm)	8		
Effective sensing distance (mm)	7,2 to 8,8		
Differential travel (%)	3 to 20		
Stability of sensing distance (%)	±10 within -25° to +70° C +30/-10 within -55° C to +85° C		
Reproduceability (%)	≤1		
Repetition rate of sensing (Hz)	≥1000		
Power-on delay (ms)	≤10		
Power-on-false pulse (ms)	T _{to} 30% ≤25 @ R _L = 1 KOhm		
Power Supply :			
Supply voltage range (V)	14 to 33		
Ripple voltage (V _{ss})	≤7		MIL-STD-1275 A(AT)
Surge voltage (V)	100 V 50 ms		MIL-STD-1275 A(AT)
Transients (V)	250 V 50 μ		MIL-STD-1275 A(AT)
Burden current (mA)	≤10		
Output Characteristics :			
Voltage drop (V)	≤3		
Residual current (μA)	≤100		
Load current (mA)	≤200 to +70° C lin falling to 150 @ +85° C		
Environmental Characteristics :			
Operating temperature range (°C)	-55 to +85		IEC 68-2-1/IEC 68-2-2
Storage temperature (°C)	-55 to +100		IEC 68-2-8/IEC 68-2-2
Damp heat, steady	56 days		IEC 68-2-3. Ca
Damp heat, cyclic	+55° C, 6 Cycles		IEC 68-2-30. Db
Rapid change of temperature	-55° C/+85° C, 5 Cycles		IEC 68-2-14. Na
Vibration	10 to 500 Hz 0,75/100 ms ⁻²		IEC 68-2-6. Fc
Bump	400 ms ⁻² , 6 x 4000 bumps		IEC 68-2-29. Eb
Shock	1000 ms ⁻² /6 ms		IEC 68-2-27. Ea
Salt mist	pH 6,5-7,2 @ +35° C		IEC 68-2-11. Ka
Insulation resistance (MOhm)	≥10 @ 500 Vdc		
Insulation voltage (V _{eff})	≥1000 @ 1 min		
Grounding resistance (mOhm)	≤20 @ 100 mA		
Special Features :			
Reverse polarity protection	Yes		
Short circuit protection	Yes		
MTBF prediction	140000 hrs @ +20° C, GM application		MIL-HDBK 217E
Notes :			
1. Unless otherwise stated, tested to or by similarity to Honeywell internal specifications			
Ordering guide			
Listing	Description		
ZS-00240-03B	Current sourcing		