

## 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.



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### **Sensing and Control**

Honeywell Inc.

11 West Spring Street

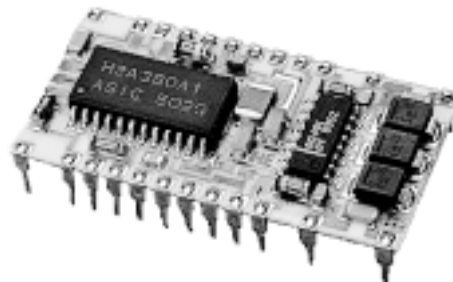
Freeport, Illinois 61032

## SENSOR INTERFACE MODULE

### Description :

Single channel sensor interface module for use with all Honeywell two part proximity sensors. It has been designed to meet the requirements of aerospace, ground mobile and naval applications. Using surface mount technology provides miniature size and light weight.

The combined sensor and interface system is highly reliable with Mean Time Between Failure in excess of 450K hours.



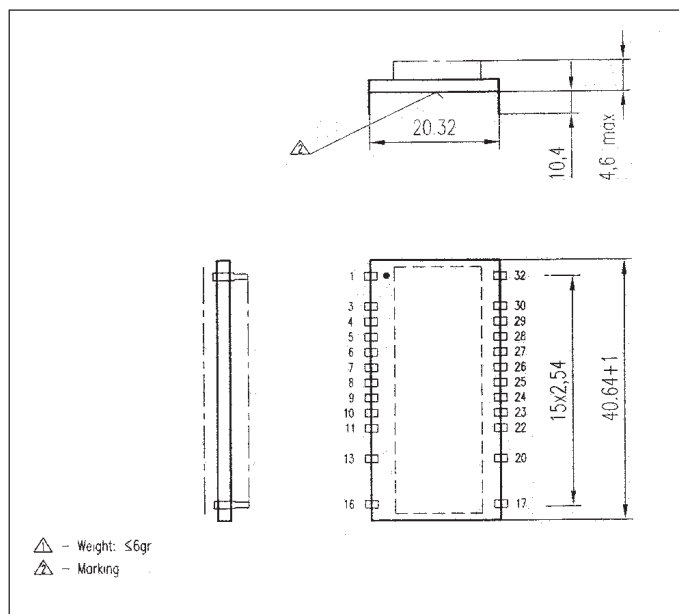
### Features :

- Interfaces with all Honeywell two part proximity sensors
- Single channel
- All inputs and outputs are TTL/CMOS compatible
- Built In Test function (BITE)
- High level of electronic protection for voltage transients and EMC
- High reliability

### Typical Applications :

- Aircraft landing gear controls
- Flight surface controls
- Door and hatch open/closed monitoring

Dimensions in mm (for reference only)



### Pin Allocation

No.	Name	Function
1	AB	Sensor input, reference
2	-	Omitted pin
3	TP1	Only for internal test purpose
4	TP2	Only for internal test purpose
5	V <sub>FF</sub>	Negative supply voltage
6	-	NC
7	-	NC
8	-	NC
9	-	NC
10	TP3	Only for internal test purpose
11	FAR	Input for target far simulation
12	-	Omitted pin
13	INB	Input, reference
14	-	Omitted pin
15	-	Omitted pin
16	GND	Sensor and power supply ground

No.	Name	Function
17	GND	Sensor and power supply ground
18	-	Omitted pin
19	-	Omitted pin
20	INA	Input, sensing
21	-	Omitted pin
22	NEAR	Input of target near simulation
23	V <sub>CC</sub>	Positive supply voltage
24	TP4	Only for internal test purpose
25	TP5	Only for internal test purpose
26	ANA	Analogue voltage output
27	STA	Failure indication output
28	AGND	Signal ground
29	OUT	Sensor output
30	DGND	Digital ground
31	-	Omitted pin
32	AA	Sensor input, sensing

# Specifications

Sensing Characteristics :		Level	Specification (Note 1)
Sensor Input	Compatible to all Honeywell balanced bridge sensors		
Response time, sensing	≤ 25 ms		
Response time, failure detection and BITE	≤ 150 ms		
<b>Electrical Specifications :</b>			
<b>Power Supply -</b>			
Supply voltage	± 4.5 to ± 5.5 V		
Ripple voltage	≤ 50 mVrms at 10 Hz-200 kHz		RTCA/DO-160C, 18.3.1
Supply current	I <sub>CC</sub> ≤ 16 mA, I <sub>EE</sub> ≤ 12.5		
<b>Input -</b>			
On-state BITE input voltage	4.0 to 16 V		
Off-state BITE input voltage	≤ 0.8 V		
<b>Output -</b>			
On state output voltage	≤ 0.8 V		
Off state leakage current	≤ 100 µA		
Maximum output voltage	+ 27.6 V		
Load current	≤ 10 mA		
Analogue output	0.035 to 2.50 V		
<b>Environmental Specifications :</b>			
Operating temperature range	-40° to +85° C		RTCA/DO-160C, 4.5
Survival temperature	-55° to +100° C		RTCA/DO-160C, 4.5
Temperature variation	Category B		RTCA/DO-160C, 5.3
Altitude	-305 m to +21,212 m		RTCA/DO-160C, 4.6
Humidity	Category B		RTCA/DO-160C, 6.3.2
Shock	40 g @ 9 ms		MIL-STD-810D, 516.3-1
Vibration	Category Y/C		RTCA/DO-160C, 8.1/8.2
<b>EMC Requirements :</b>			
<b>Induced Signal Susceptibility:</b>			
Magnetic fields, equipment	Category Z		RTCA/DO-160C, 19.3.1
Magnetic fields, sensor input	Category Z		RTCA/DO-160C, 19.3.2
Electric fields, sensor input	Category Z		RTCA/DO-160C, 19.3.3
Spikes, sensor input	500 mA relay Category Z		D6-16050-4, 7.5.2
<b>RF Susceptibility</b>			
Conducted, sensor input	Category Y		RTCA/DO-160C, 20.4
Conducted, signal inputs	Category U		RTCA/DO-160C, 20.4
Conducted, signal outputs	Category T		RTCA/DO-160C, 20.4
Radiated, CW&AM, sensor input	Category Y		RTCA/DO-160C, 20.5
Radiated, pulsed, sensor input	600 V/m, 400 mHz-18 GHz		
Radiated, HIRF, sensor input	20-3500 V/m, 10 kHz-18 GHz		
<b>Emissions</b>			
AF emission, capacitive coupling	≤ 300 mVpp, 20 Hz-150 kHz		
AF emission, inductive coupling	≤ 60 mVpp, 20 Hz-150 kHz		
RF emission, conducted	Category A&Z		RTCA/DO-160C, 21.3
RF emission, radiated	Fig. 8.4-6, 8.4-7		D6-16050-4, 8.4.2
<b>Lightning Induced Transient Susceptibility</b>			
Sensor input	Level L2 (L25A)		D6-16050-4, 7.4.1(2.3)
Signal inputs	Category A2E2		RTCA/DO-160C, 22.5
Signal outputs	Category A1E1		RTCA/DO-160C, 22.5
<b>Mean Time Between Failure prediction</b>			
	≥ 535000 hrs		MIL-HDBK-217 F
<b>Notes :</b>			
1. Unless otherwise stated, tested to or by similarity to Honeywell internal specifications			