

S12H-275VPA-RGCB2

Analog Ferrous Metal Position Sensor

- Analog Hall Proximity Sensor
- .4" detection gap
- 0-5V output
- Stainless 12x1mm x 52mm housing
- Integral 4 pin male 12mm micro connector



CUSTOMER FOCUSED ENGINEERING + MODULAR DESIGN

Part Description: **S12H-275VPA-RGCB2**

Housing	Sensor Type & Function	Electrical Option	Connection Type
S = Stainless Steel, Thread Pitch M12x1, 52mm Long	Analog Ferrous Metal Position Sensor	Regulated Input 0-5V Analog Output	CB2 = Integral 4 Pin Male 12mm Micro Connector

Modify, update, or enhance any sensor with our modular features and functionality.

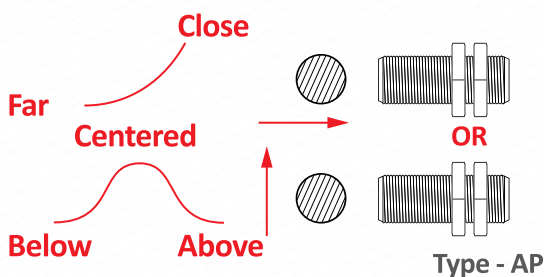
HOUSING - Aluminum, stainless steel, plastic, threaded, flange mount, customer specific

ELECTRICAL - Every sensor function available in various electrical options (NPN, PNP, TTL, etc.)

CONNECTION - Deutsch, Amphenol, many other brands, free end wires, pigtails, any length

Need a Custom Sensor Solution?... Send us your application specific requirements at [sensorso.com](https://www.sensorso.com)

'Analog Output Proportional to Ferrous Metal Proximity

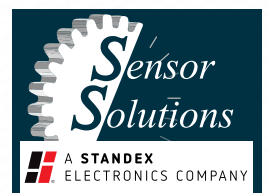


DESCRIPTION

- Analog output increases as ferrous metal approaches, decreases as target moves away
- Standard programming goes from 0.5V with no metal present to 4.5V when contacting steel plate.
- Target detection gap is dependent on shape/size/ferrous content.
- Custom programming available for precision repeatable detection of target positions, contact Sensor Solutions.
- Provided lock nuts used to set air gap from target.

FEATURES

- Lower Cost OEM Design
- Wide Temperature Range
- Detects Through Aluminum
- Shock and Vibration Resistant



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Note: Check our website or contact us for details on all our ferrous metal detection options.

Electrical Specifications	Conditions	Min	Max	Unit
Temperature Range*	Operating	-40	+110*	Deg C
Supply Voltage, Vcc	Operating	+8	+30	Volts DC
Supply Current	Into Vcc	2.5	12	mA
Output Current	Recommended	-2	+2	mA
Load Capacitance	Cable and Load	n/a	+1.0	µF
Frequency Range **	Programmable	0	500**	Hz
Saturation Voltage Low	I sink < 1.0 mA	0	.35	Volts
Saturation Voltage High	I source < 1.0 mA	4.65	Vcc	Volts
Impulse Response Time	500 Hz Freq. Range	2 typ	4	mS

* T max = 150°C is available, contact factory.
** Can be programmed for operation 2000 Hz, contact factory.

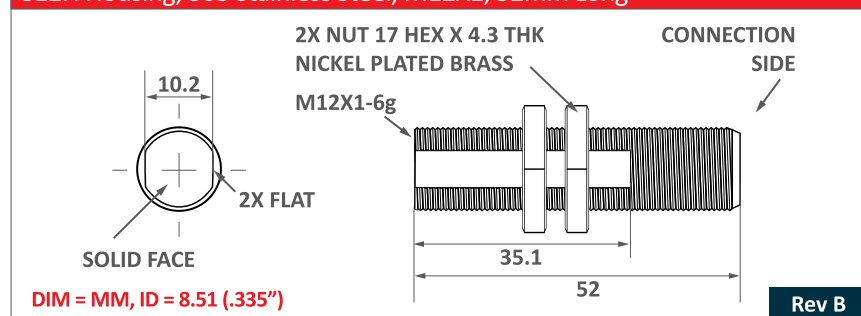
Rev A

Absolute Max Limits	Min	Max	Unit
Supply Voltage, Vcc	-16	30	Volts
Supply Voltage, <10 min	-5	+8.5	Volts
Continuous Output Current	-10	+10	mA
Vout Short Circuit Duration	-	3	Minutes
ESD	-7	+7	kVolts
Load Dump, 40 ms	-	40	Volts

Environmental Specifications

Corrosion Resistance	500 hours salt spray ASTM B-117
Installation Torque	23 Foot-Pounds Maximum
Enclosure	Nema 1,3,4,6,13 & IEC IP67
Vibration	10 G's 2 to 2000 Hz Sinusoidal
Mechanical Shock	100 G's, 11 mS Half-Sine

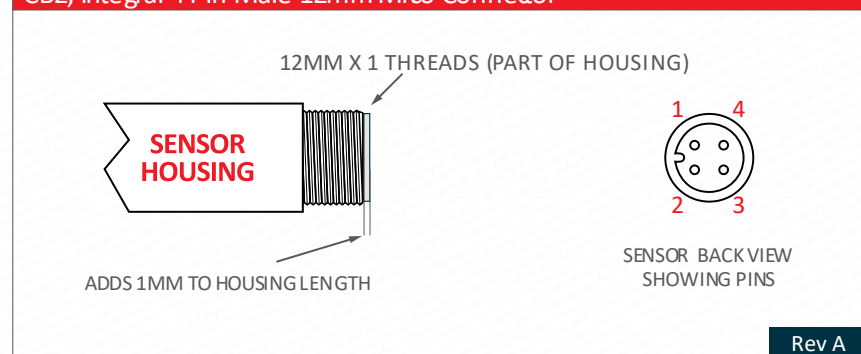
S12H Housing, 303 Stainless Steel, M12X1, 52mm Long



Rev B

Functional Characteristics 900-12-000 w/Large Steel Target	Min	Typ	Max
For Sensors with Custom Programming, these values may change			
Voltage at Infinity	0.40V	0.50V	0.60V
Voltage at 0"	4.25V	4.50V	4.75V
Conformity to Curve	-250V	-	+250V

CB2, Integral 4 Pin Male 12mm Micro Connector



Rev A

Connections Chart

Pin 1	Vcc	Pin 3	Ground
Pin 2	Analog Vout	Pin 4	Program/LEAVE OPEN

CB2-275VPA

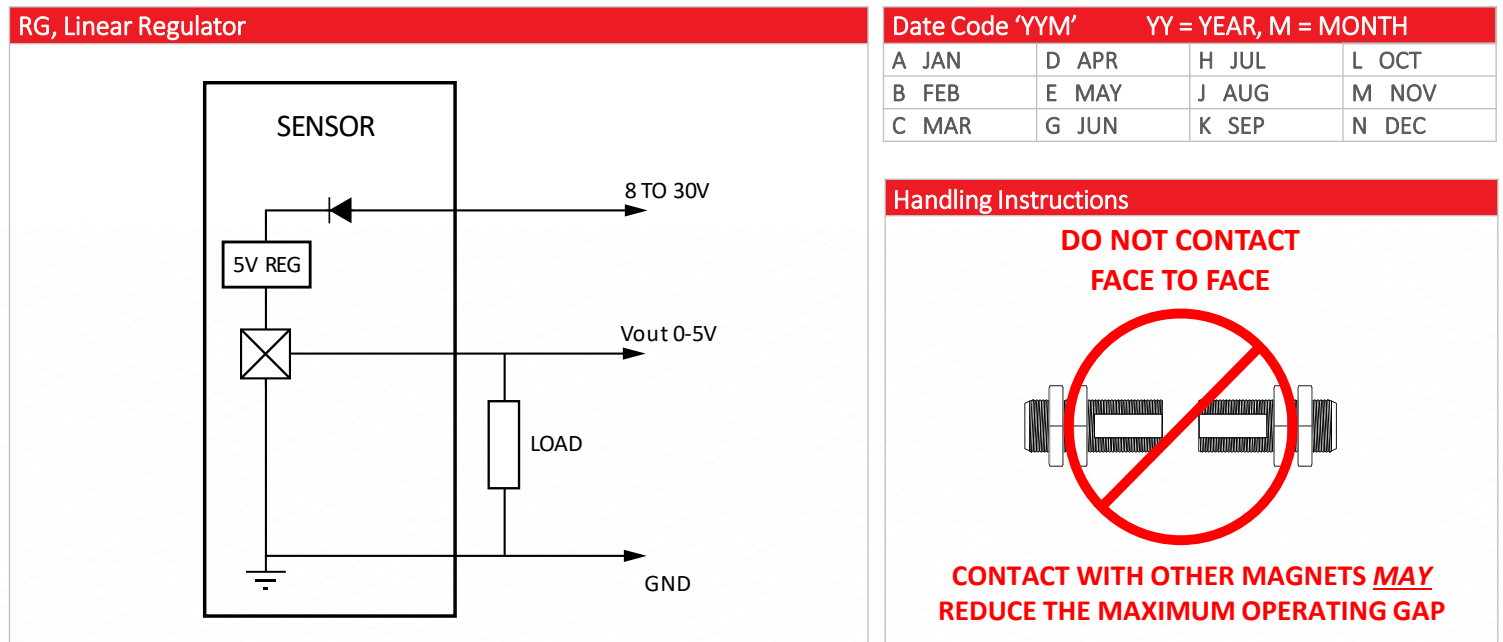
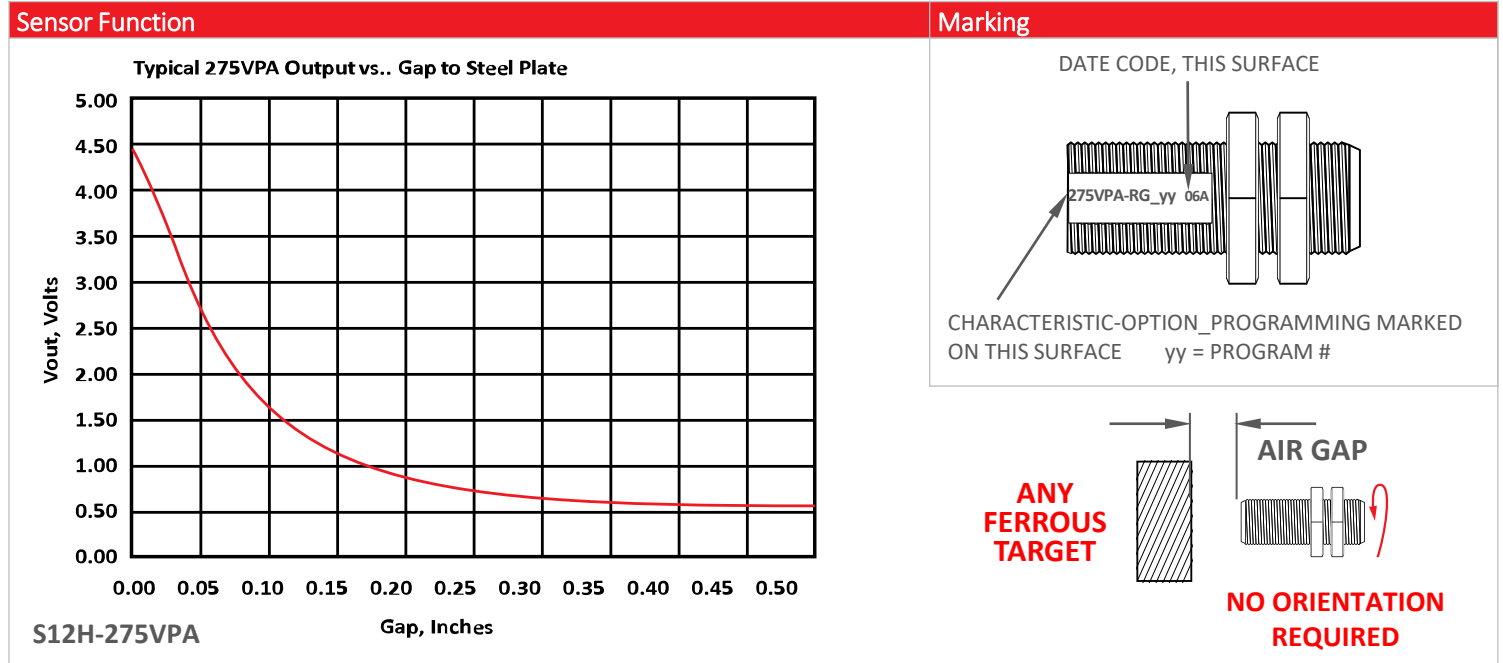


Caution: A short from the Pin 4 Program wire to either Pin 1 Vcc or Pin 3 Ground wire will cause component failure.

OTHER MATING CONNECTORS AND CABLES AVAILABLE

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Please note: All technical specifications on this series datasheet refer to the standard product range. Modifications in the sense of technical progress are reserved. For general information only. For more specific information, please consult the product datasheet, available upon request.

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