WT-EX-409A-IS(Explosion-proof)

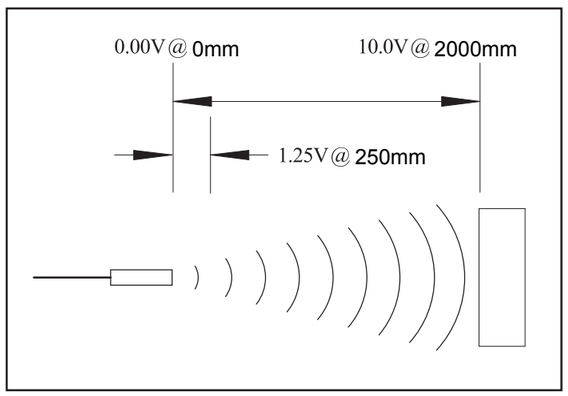
(Intrinsically Safe for use in Hazardous)

Features

- Intrinsically Safe
- UL Listed
- Input Voltage 16-30 VDC
- Reverse Polarity Protected
- Analog Voltage Output
- Short Circuit Protected
- Sync/Enable Input Line
- Various Sensing Ranges
- Wide Temperature Range
- Temperature Compensation
- LED Indicator
- Self Contained Sensor
- PVC Housing
- Quick Disconnect Connector

The WT-EX-409A-IS is an intrinsically safe, analog ultrasonic sensor. It is a self-contained sensor in a 30mm PVC barrel housiing. It is powered by 16-30VDC with reverse polarity protection.

The WT-EX-409A-IS has a short circuit protected analog 0-10VDC output. The analog voltage i s a fixed volts per mm based on the maximum range of the unit. For example using the WT-EX-409A-IS, the output is a linear 0.005 volts per mm. A target placed 254mm from the sensor will result in an output signal of 1.25 volts or a target placed at 2000mm from the sensor will result in an output of 10 volts.



The WT-EX-409A-IS has built-in temperature compensation to provide accurate readings throughout the entire operating temperature range.

An LED indicator is provided. The LED is green when not detecting and changes to red when a target moves into place. The sensor is completely sealed and the connection is made by way of IP and NEMA rated cables.

Besides the input and output lines there is a sync/enable line provided. This can be used for commecting multiple sensors together to prevent cross talk, or to fire the sensor at a particular time.

The WT-EX-409A-IS is designed to take advantage of today's PLC and computer analog input cards. The numerical values that are programmed into the PLC or computer will determine the zero and span.

If a set point or set points are required in the application, please refer to the Hesmor SPC-701, SPC-704, or M-1000 control products. Both the SPC-704 and M-1000 can also provide excitation power to drive the sensor.

Specifications:

Model Number:	Sensor Range:	Transducer Frequency:	Response Time:	Volts Per mm:
WT-EX-409A-1000-IS	100 to 1000mm	160kHz	85ms	6.25
	150 to 2000mm	135kHz	85ms	3.18
WT-EX-409A-3600-IS*	300 to 3600mm	70kHz	85ms	1.75
WT-EX-409A-5400-IS*	300 to 5400mm	70kHz	120ms	1.17

* Preliminary - Consult factory for availability.

Power Input: 16 - 30VDC Reverse Polarity Protected (A minimum of 24VDC must be applied to the barrier)

Input Current: 24mA maximum with 24VDC applied to the barrier

Ambient Temperature: -40° to 60°C (-40° to 140°F)

Humidity: 0% - 95% Non-Condensing

Housing: PVC Housing with a PVC sensing face

Output: Analog Voltage Output 0-10V (Load 100k Ohms to infinity) Short Circuit Protected

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Mounting Consideration:
The performance of this sensor can be influenced by direct metal contact. This zone is 12mm/.50" measured from the sensor face. See Fig. D

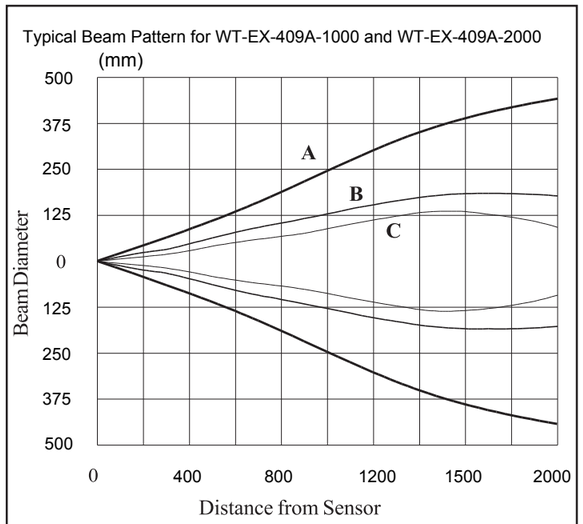

Fig. A

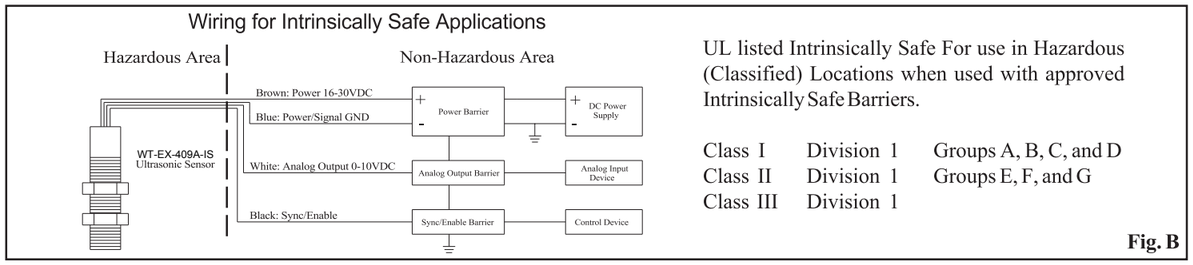

Fig. B

Figure:
A - Beam Spread
B - Wiring Diag.WT-EX-409A-IS
C - Connector Diagram
D - Mounting Dimensions

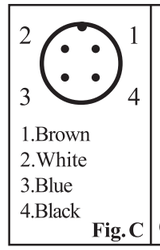

Fig. C

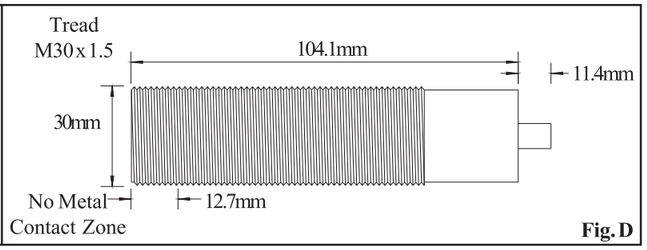

Fig. D

PART NUMBER	RANGE	OUTPUT / DESCRIPTION
WT-EX-409A-1000-IS	100 to 1000mm	0 - 10VDC Analog Output
WT-EX-409A-2000-IS	150 to 2000mm	0 - 10VDC Analog Output
WT-EX-409A-3600-IS*	300 to 3600mm	0 - 10VDC Analog Output
WT-EX-409A-5400-IS*	300 to 5400mm	0 - 10VDC Analog Output
F32-5496302		1828mm Cable, 4-PIN, IP68 / NEMA-6P, 18 AWG (sold separately)
F32-5496305		4876mm Cable, 4-PIN, IP68 / NEMA-6P, 18 AWG (sold separately)
F33-5007728		Power Safety Barrier (sold separately)
F33-5007764		Analog Output & Sync / Enable Safety Barrier (sold separately)

*Preliminary - Consult factory for availability