

SPECTEC

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XP1cg Bulletin

Explosion/Flame Proof Speed Sensor

Passive Sensor, Cable Gland Style

1/2, 5/8, 11/16, 3/4, M12, M16 & M18

PRODUCT DESCRIPTION

SPECTEC's Explosion Proof / Flame Proof sensors are designed for installation in hazardous locations. They are offered in a wide variety of configurations as outlined on page 2. Custom sensors can also be created to meet specific needs.

INSTALLATION

CAUTION!!! This sensor MUST be installed following the details specified in the Instruction Manual Document #85045Xcg.

GENERAL SPECIFICATIONS

Construction: 300 Series Stainless Steel
Solid Epoxy Encapsulation

Lead Wires or Cable: 22 to 24 AWG
PVC insulated Shielded Cable, See Page 2

Coil Resistance and Inductance: See Page 2

MAGNETIC VRS SENSORS, Gear Actuated

Output Voltage: Varies depending on target size, velocity, coil resistance, and air gap.
NOTE: Not to exceed 32 VAC RMS (89Vp-p).
See warning note in Instruction Manual.

Frequency Range: ~5 Hz to 100 kHz

Air Gap: ~.080" (2mm) max for 5dp gear
~.015" (0.4mm) max for 48dp gear
(based on magnetization of >1200 Gauss)

INDUCTIVE SENSORS, Magnet/magnetic field actuated

Output Voltage: Varies depending on target size, velocity, coil resistance, and air gap.
NOTE: Not to exceed 32 VAC RMS (89Vp-p).
See warning note in Instruction Manual.

Frequency Range: ~5 Hz to 100 kHz

Air Gap: ~.50" (12mm) max for 5k coil
~.30" (7mm) max for 3k coil
(based on \varnothing 10mm, 3000 Gauss magnet)

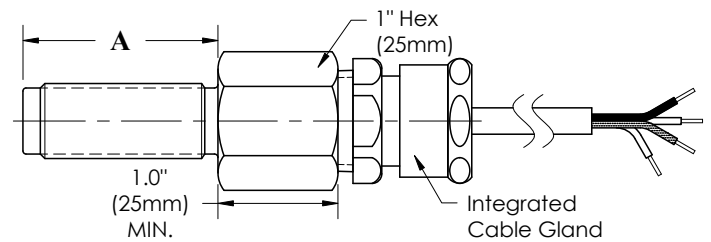
RF SENSORS, Ferrous or Aluminum target actuated

Must be used with 4013 type signal conditioner

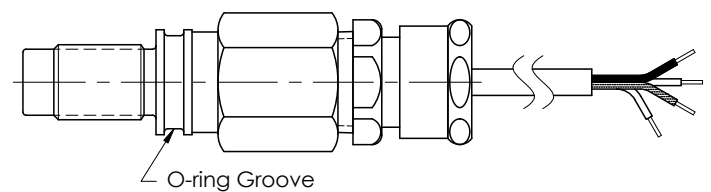
Frequency Range: ~0.5 Hz to 5 kHz

Air Gap: ~.160" (4mm) max depending on target mass

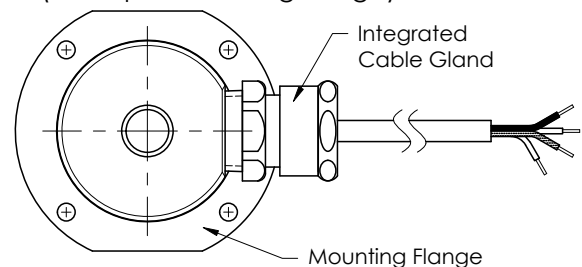
Y shell type



CUSTOM shell type per customer requirements (example shell type with o-ring groove)



(example mounting flange)



CERTIFICATIONS for XP1cg

ATEX, UKEX, & IECEx: II 2 G Ex db IIC T6...T4 Gb
FM16ATEX0086X & FM22UKEX0112X
IECEx FMG 16.0035X



T4 @ $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +90^{\circ}\text{C}$
T5 @ $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +90^{\circ}\text{C}$
T6 @ $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +75^{\circ}\text{C}$



Compliance with
EN50081-1, EN50082-1

FEATURE SELECTION for XP1cg-abdefg

SPECTEC P/N	a Sensor Type	b Shell Type (See Page 1)	d Mounting Thread	e Mounting Thread Length	f Coil Resistance (Nominal)	g Lead Wires
XP1cg- Passive Sensor, Cable Gland Style	M - Magnetic VRS (Ferrous Target)	Y	1 - 1/2-20 UNF 2 - 5/8-18 UNF 3 - 11/16-24 UNEF 4 - 3/4-16 UNF 5 - 3/4-20 UNEF 6 - M12x1 7 - M16x1.5 8 - M18x1 9 - M18x1.5	1 - 1.1" (28mm) 3 - 2.0" (51mm) <hr/> 5 - 3.0" (76mm) 6 - 4.0" (101mm) 7 - 6.0" (152mm) 8 - 8.0" (203mm) 9 - 10.0" (254mm)	1 - 50 Ω, 25mH 2 - 150 Ω, 85mH 3 - 250 Ω, 120mH 4 - 650 Ω, 160mH 5 - 1100 Ω, 0.5H 6 - 1500 Ω, 0.8H 7 - 2000 Ω, 1.1H 8 - 3000 Ω, 1.5H 9 - 5000 Ω, 2.5H	1 - 12" / 1' (0.3m) 2 - 36" / 3' (1m) 3 - 120" / 10' (3m) 4 - 198" / 16' (5m) 5 - 396" / 33' (10m) 6 - 600" / 50' (15m) 7 - 792" / 66' (20m)
	I - Inductive (Magnet Actuated)		R - RF Sensor	NOTE: Thread lengths of 3.0" and longer are made as a welded assembly. (Internally called Y-ASY)	RF Coil Options (R Sensor Type Only) A - 4 Ω, 0.4mH B - 10 Ω, 1.0mH	Dual Coil Options (M & I Sensor Type only) D - 210 & 260 Ω E - 600 & 900 Ω

Variants:

XP1cg-abdefg-300G The magnetization level for low magnetic drag sensors is designated as a suffix to the part number. This example designates a gauss level of 300. The standard magnetic level does not require a suffix. (Only for Magnetic VRS Sensor Type)

P/N Examples:

XP1cg-MY2353 Magnetic VRS, Y shell type, 5/8-18 x 2.0" thread, 1100 Ω, 120" cable

XP1cg-RY61A2 RF Sensor, Y shell type, M12x1 - 28mm thread, 4 Ω, 1m cable

Please Note: Some combinations of options are not possible, please contact sales with any questions.

Customizations: Some minor customizations to the above Shell Types are possible (e.g. O-ring groove, long thread relief, etc.). Customer specific housing designs and mounting flanges are also possible. However, these customizations are still required to conform to all appropriate standards and meet the requirements of the design approval. Contact sales for suitability. Details on custom models are listed below.

SPECIALTY & CUSTOM MODELS:

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