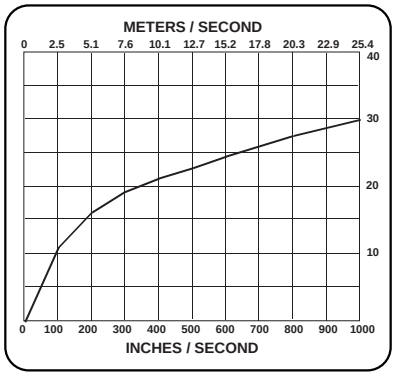
5/8 M16* 3042 SERIES INTRINSICALLY SAFE VRS SENSORS



NRTL/C

FOR HAZARDOUS LOCATIONS

OPTIMUM ACTUATOR: 12 DP (Module 2.11) Ferrous Metal Gear TEST CONDITION: C VRS Tech Data

GENERAL SPECIFICATIONS

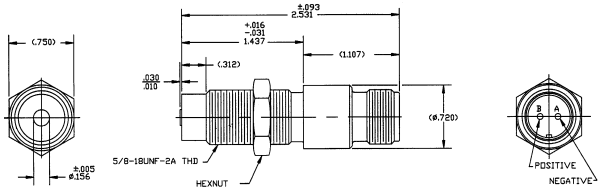
OUTPUT VOLTAGE: 30V P-P min.
COIL RESISTANCE: 150 OHMS Typical
POLE PIECE DIA.: .156" (3.9mm)
MIN. SURFACE SPEED: 15 IPS (.38 m/Sec.) Typical

OPERATING TEMP. RANGE: -67 to 250F (-55 to 120C)
INDUCTANCE: 26 mH max.
GEAR PITCH RANGE: 16 DP (Module 1.58) or Coarser
MAX. OPER. FREQ.: 40 KHz Typical

SENSORS WITH 5/8-18 UNF-2A MOUNTING THREAD*, MS3106 CONNECTOR, .312" THREAD RELIEF

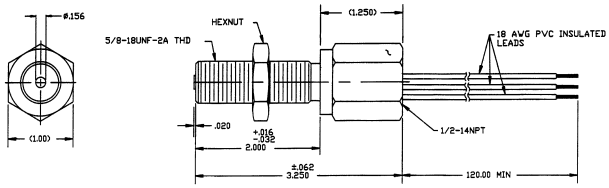
MODEL	THREAD LENGTH	WEIGHT
3042A	1.4" (35 mm)	2.5 oz. (70 gr.)

Mates with 41010(VR) Connector or CA210 Cable Assembly



SENSORS WITH 5/8-18 UNF-2A MOUNTING THREAD*, 1/2-14 NPT CONDUIT MOUNT, 120" (3M) LEADS

MODEL	THREAD LENGTH	WEIGHT
3042H20	2.0" (50 mm)	5.0 oz. (140 gr.)



WHEN PROPERLY INSTALLED USING THE INTRINSIC SAFETY PROTECTION METHOD CONNECTED PER CONTROL DRAWING 621081, INDIVIDUAL MODELS ARE INTRINSICALLY SAFE FOR HAZARDOUS LOCATIONS AS FOLLOWS;

MODELS 3042A, M3042A: CLASS 1, GROUPS ABCD

MODELS 3042H20, M3042H20: CLASS 1, GROUPS ABCD, CLASS II, GROUPS EFG, CLASS III

THE 3042 SERIES HAVE BEEN TESTED TO AND MEET THE REQUIREMENTS OF APPLICABLE U.S. AND CANADIAN SPECIFICATIONS FOR THE LOCATIONS DESCRIBED ABOVE.

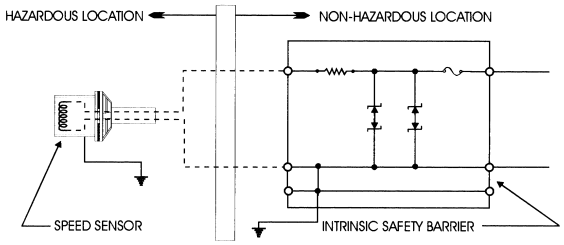
**For M16 x 1.5 6g Mounting Thread Versions, add "M" as the first character of the model number. Contact Invensys/Electro for availability and pricing.*

ISO 9001
Certificate Number FM37434

Invensys Sensor Systems / Electro Corporation, U.S.A.
Tel. 941-355-8411 www.speed-position.invensys.com Fax 941-355-3120

3042 SERIES I.S. CONTROL DRAWING 621081

For Single Channel Barriers



HAZARDOUS LOCATIONS
Class I, Groups A, B, C, D; Class II, Groups E, F, G;
Class III: Sensor Models 3042H20 and M3042H20

Class I Groups A, B, C and D: Sensor Models 3042A and M3042A

ENTITY PARAMETERS
Vmax = 24V, Imax = 35mA, Li = 26mH, Ci = OuF

Any barrier (see General Notes) with entity parameters connected in accordance with barrier manufacturers instructions of:

V max ≥ Voc	Ca ≥ Ci + cable capacitance
I max ≥ Isc	La ≥ Li + cable inductance

SYSTEM PARAMETERS
Any barrier (see General Notes) having one of the following specified parameters:

Vmax	Rmin	Vmax	Rmin	Vmax	Rmin
30	707	20	421	10	136
25	580	15	278	5	1

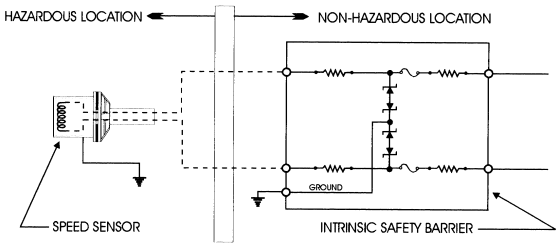
GENERAL NOTES
1. For jurisdictions requiring Certification to the applicable Canadian Standards the barrier must be CSA Certified and System must be installed in accordance with the Canadian Electrical Code Part 1.
2. For jurisdictions requiring Certification to the applicable Occupational Safety and Health Administration (OSHA) standards the barrier must be CSA NRTL or equivalent and system must be installed in accordance with the National Electrical Code (NEC) article 504 or ANSI/NFPA 70.

SENSOR GROUNDING
Models 3042A and M3042A: Sensor housing to be connected to intrinsically safe system ground during installation.

Models 3042H20 and M3042H20: Green wire to be connected to intrinsically safe system ground

Exia = Intrinsically Safe, Securite Intrinseque

For Dual Channel Barriers



HAZARDOUS LOCATIONS
Class I, Groups A, B, C, D; Class II, Groups E, F, G;
Class III: Sensor Models 3042H20 and M3042H20

Class I Groups A, B, C and D: Sensor Models 3042A and M3042A

ENTITY PARAMETERS
Vmax = 24V, Imax = 35mA, Li = 26mH, Ci = OuF

Any barrier (see General Notes) with entity parameters connected in accordance with barrier manufacturers instructions of:

V max ≥ Voc	Ca ≥ Ci + cable capacitance
I max ≥ Isc	La ≥ Li + cable inductance

SYSTEM PARAMETERS
Any barrier (see General Notes) having one of the following specified parameters per channel:

Vmax	Rmin	Vmax	Rmin	Vmax	Rmin
30	1414	20	842	10	272
25	1160	15	556	5	2

GENERAL NOTES
1. For jurisdictions requiring Certification to the applicable Canadian Standards the barrier must be CSA Certified and System must be installed in accordance with the Canadian Electrical Code Part 1.
2. For jurisdictions requiring Certification to the applicable Occupational Safety and Health Administration (OSHA) standards the barrier must be CSA NRTL or equivalent and system must be installed in accordance with the National Electrical Code (NEC) article 504 or ANSI/NFPA 70.

SENSOR GROUNDING
Models 3042A and M3042A: Sensor housing to be connected to intrinsically safe system ground during installation.

Models 3042H20 and M3042H20: Green wire to be connected to intrinsically safe system ground

Exia = Intrinsically Safe, Securite Intrinseque

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