



**MOTION SENSORS, INC.**

*Producing High Quality Solutions Since 1970*

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## Magneto-resistive Sensors – Intrinsically Safe

The Motion Sensor (MSI) Intrinsically Safe versions of Magneto-resistive (MR) sensors feature the same high quality construction and materials as our standard Magneto-resistive units and are custom designed and developed for each customer application. They are certified to CSA (with NRTL/C) and LCIE to ATEX (94/9/EC) for Class I, Zone 0, IIC and II 1 G EEx ia IIC T4, or Class I, Zone 0, IIA and II 1 G EEx ia IIA T4 hazardous locations.

## Product Specifications

Intrinsically Safe MR sensors are manufactured on a custom basis to meet the specifications and requirements of a particular application. MSI can make custom Intrinsically Safe MR sensors in customer-specified lengths, diameters, configurations, mounting threads (e.g., metric) as well as with different operating specifications and options like pigtail leads, NPT threads for explosion proof applications, etc. Our certifications permit us to make intrinsically safe versions of almost any MSI sensor, or to customize a sensor to suit a particular application or customer need. The customization process for Intrinsically Safe products at MSI is straightforward, quick, offers more choice, and is less costly than our competitors. Just tell us what you want and we will provide a fully certified CUSTOM INTRINSICALLY SAFE PRODUCT IN WEEKS, NOT MONTHS, made to your specifications, even if you only need one piece! This ability to provide rapid development of custom certified product WITHOUT THE NORMAL CERTIFICATION COSTS AND LEADTIMES is due to our unique "modular" certification scheme with CSA and ATEX. Please contact us to learn how Motion Sensors can provide a customized Intrinsically Safe MR sensor for your application.

## Features and Specifications

### Type:

Intrinsically Safe versions of both single and dual channel Magneto-resistive sensors are available

### Approvals:

Intrinsic Safety to CSA (with NRTL/C) and LCIE to ATEX (94/9/EC)

CE compliant to EMC Directive 89/336/EEC for use in residential, commercial, light industrial and heavy industrial environments

### Warranty:

Unconditional one (1) year warranty if used within specifications

### Entity Parameters:

#### Group IIA:

$V_{max}/U_i = 30$  VDC

$I_{max}/I_i = 190$  mA

$C_i/C_i = 0.0$  uF

$L_i/L_i = 0.50$  mH

#### Group IIC:

$V_{max}/U_i = 30$  VDC

$I_{max}/I_i = 200$  mA

$C_i/C_i = 0.0$  uF

$L_i/L_i = 0.50$  mH