

Intrinsically Safe Series 200 Flow Sensors

Data Industrial's Series 200 Flow Sensors have recently been rated as Intrinsically Safe devices by both Factory Mutual Research and the Canadian Standards Association. The applicable report numbers are:

Factory Mutual Research Approval Report No. 4X6A6.AX (3610) of July 8, 1994

Canadian Standard Association Certificate of Compliance LR 104201-1 of 22 March, 1995

They are thereby approved for use in hazardous areas as intrinsically safe devices, when properly installed.

Hazardous Areas and the required electrical precautions for use therein, are defined in the National Electric Code, Articles 500 through 504, for all environments in which fire or explosion hazards may exist due to the presence of flammable gases, liquids, and vapors or where combustible dust, or ignitable fibers or flyings. These are specifically identified by defined Classes, with Divisions in each class and Groups within each division.

PRODUCTS

200 ✓
4000
310
320
600
800
1400
1500
2100
2200
2300
HTT
WSS

Class:

- I. Gases and vapors
- II. Combustible dust
- III. Fibers

Divisions:

- 1. Present or likely to be present in normal operation
- 2. Not present in normal operation

Groups:

- A: Acetylene
- B: Hydrogen
- C: Acetaldehyde, Ethylene, Methyl Ether
- D: Acetone, Gasoline, Methanol, Propane
- E: Metal Dust
- F: Carbon dust
- G: Grain dust

The Series 200 Sensor is approved, as an entity, as Intrinsically Safe when installed in conformance with Data Industrial 06-480-001 or 06-480-002 as specified on the blue label identifying an intrinsically safe sensor.

Entity approval implies that only the sensor is approved as intrinsically safe. Unless power supplies, equipment, and instruments connected to the sensor are each rated either explosion-proof or intrinsically safe, these devices cannot be installed in a hazardous area. The referenced installation drawing shows such apparatus located in a nonhazardous location. Proper interfacing between the hazardous and nonhazardous areas must be provided. It is of absolute importance that this interface be constructed and that all wiring be performed by qualified contractors.

To ensure the Intrinsic Safety of the installation, the connection of the intrinsically safe sensor to instruments and or power supplies must take place using an intrinsically safe barrier located in a nonhazardous area. These barriers are readily available from various suppliers. We have, for your convenience, listed three such barriers below.

Manufacturer:

Crouse-Hinds Spec 504
Measurement Technology Ltd.
R Stahl Intrinspak

Barrier:

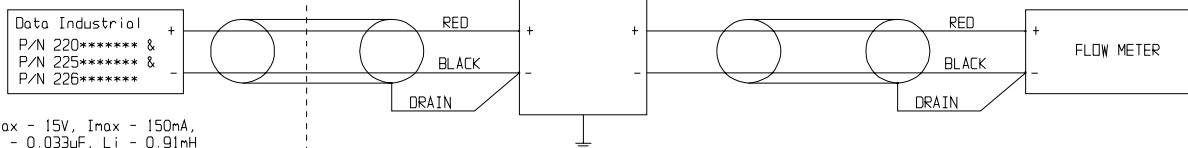
Cat No. SB19140M0715
MTL 715+ 15 V
9001/01-158-150-10

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	RELEASED ECO 3250		
B	ECO 3263	7-6-94	
C	ECO 3292	12/27/94	

HAZARDOUS LOCATION

NONHAZARDOUS LOCATION



USABLE IN HAZARDOUS LOCATIONS
CLASS I, DIVISION I,
GROUPS A, B, C, D

FMRC APPROVED ENTITY
INTRINSIC SAFETY BARRIER

NOTES

1. FMRC APPROVED BARRIER PARAMETERS MUST MEET THE FOLLOWING CONNECTION REQUIREMENTS:
 - V_{oc} OR V_t MUST BE LESS THAN V_{max}
 - I_{sc} OR I_t MUST BE LESS THAN I_{max}
 - C1 PLUS INTERCONNECTION WIRING MUST BE LESS THAN THE C_o OF THE FMRC APPROVED BARRIER
 - L1 PLUS INTERCONNECTING WIRING MUST BE LESS THAN THE L_o OF THE FMRC APPROVED BARRIER
2. INSTALLATION SHALL BE IN ACCORD WITH THE MANUFACTURER'S INSTRUCTIONS AND THE NATIONAL ELECTRICAL CODE (ANSI/NFPA 70).
3. FOR GUIDANCE ON INSTALLATION, SEE ANSI/ISA RP12.6 "INSTALLATION OF INTRINSICALLY SAFE INSTRUMENT SYSTEMS IN CLASS I HAZARDOUS LOCATIONS"
4. NO CHANGES TO THIS DRAWING WITHOUT PRIOR WRITTEN AUTHORIZATION FROM FMRC.

DO NOT SCALE DRAWING

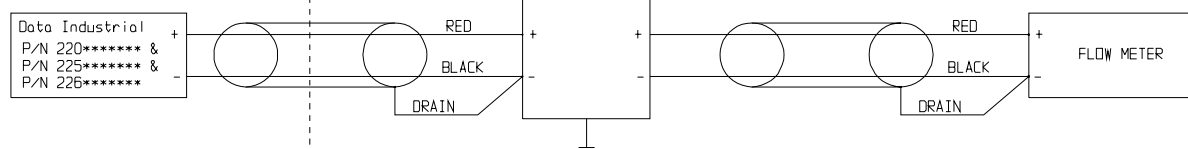
DRAWN	DATE	Data Industrial		11 INDUSTRIAL DRIVE MATTAPANSETT, MA 02739 (508) 758-6390	
BILL HEELAN	04/20/94	PROJECT		FM APPROVED SENSORS	
CHECKED	DATE	PART		INSTALLATION DRAWING FOR FMRC APPV'D 220BR*, 220SS*, 225*, & 226* SENSORS	
APPROVAL	DATE	SIZE		REV	
FMRC APPROVAL	DATE	FSCN NO.		06-480-001	
SCALE		NONE		SHEET 1 OF 2	

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HAZARDOUS LOCATION

NONHAZARDOUS LOCATION



USABLE IN HAZARDOUS LOCATIONS
CLASS I, DIVISION I,
GROUPS A, B, C, D

CSA CERTIFIED
INTRINSIC SAFETY BARRIER

CROUSE-HINDS, SPEC 504, CAT. NO. SB19140M0715
MEASUREMENT TECHNOLOGY LTD. MTL 715+ 15 V,
R. STAHL INTRINSPAK 9001/01-158-150-10

NOTES:

1. INSTALLATION SHALL BE IN ACCORD WITH THE INTRINSIC SAFETY BARRIER MANUFACTURER'S INSTRUCTIONS AND CANADIAN ELECTRICAL CODE
2. NO CHANGES TO THIS DRAWING WITHOUT PRIOR WRITTEN AUTHORIZATION FROM CSA

DO NOT SCALE DRAWING

DRAWN	DATE	Data Industrial		11 INDUSTRIAL DRIVE MATTAPANSETT, MA 02739 (508) 758-6390	
BILL HEELAN	04/20/94	PROJECT		CSA CERTIFIED SENSORS	
CHECKED	DATE	PART		INSTALLATION DRAWING FOR CSA CERTIFIED 220BR*, 220SS*, 225*, & 226* SENSORS	
APPROVAL	DATE	SIZE		REV	
FMRC APPROVAL	DATE	FSCN NO.		06-480-001	
SCALE		NONE		SHEET 2 OF 2	