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**TRIDENT** AUSTRALIA  
FLUID SYSTEMS & COMPONENTS

**CAT1**

# FLOWMETERS BY HOFFER

Perfecting Measurement™



**CAT1 SERIES**  
Conditioners-Amplifiers-Transmitters  
Product Bulletin CAT1-001 I

## TECHNICAL DATA SHEET

### OUTSTANDING FEATURES

- ◆ Loop powered 4-20mA.
- ◆ Optional flowmeter linearization.
- ◆ Factory configured when purchased with a Hoffer flowmeter.
- ◆ Several enclosure options.
- ◆ CE Compliant.
- ◆ Windows® Configuration Software.

### SPECIFICATIONS

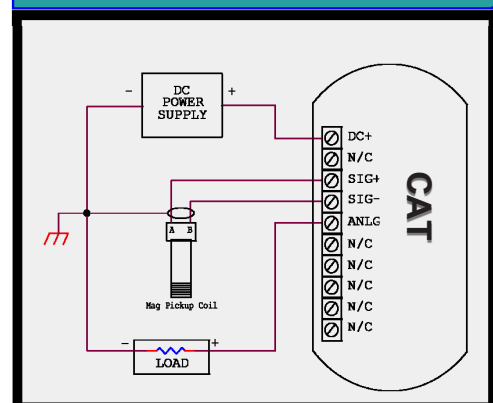
<b>Input Signal Type:</b>	Magnetic pickup.
<b>Input Frequency Range:</b>	0.2 Hz to 4 KHz.
<b>Signal Level:</b>	10 mV rms to 30 Vdc.
<b>Power Supply:</b>	Loop Power 10-30 Vdc. Reverse polarity protected.
<b>Loop Burden Voltage:</b>	8.5 V.
<b>Analog Output:</b>	4-20mA.
<b>Analog Output Response Time:</b>	1/8 sec. (Limited by frequency and MST settings).
<b>Load Resistance:</b>	Max 650 Ohms at 24 Vdc.
<b>Accuracy:</b>	±0.02% of full scale.
<b>Temperature Drift:</b>	40 ppm/deg. C.
<b>Communications:</b>	RS232 port for configuration and diagnostics.
<b>Operating Temperature:</b>	T5 & STD: $-40^{\circ}\leq T_a\leq +85^{\circ}\text{C}$ . T6: $-40^{\circ}\leq T_a\leq +79^{\circ}\text{C}$ .
<b>Humidity:</b>	0-90% Non-Condensing.
<b>Enclosure:</b>	Extruded Aluminum. DIN Rail Mount. Explosion-Proof.
<b>Regulatory:</b>	CE Compliant.
Up to 20 point linearization.	
Windows® Configuration Software for Device configuration, diagnostics and monitoring.	



### PRODUCT DESCRIPTION

The CAT1 is a microprocessor controlled 2-wire 4-20mA transmitter. The CAT1 converts a low level, frequency signal from a flowmeter sensor into an analog 4-20mA output. The output is proportional to the flow rate.

### INSTALLATION WIRING



®Windows is a registered trademark of Microsoft.

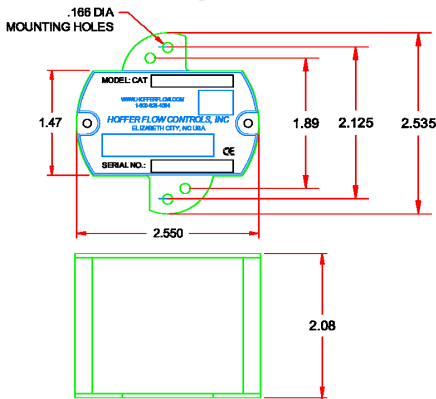


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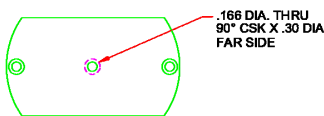
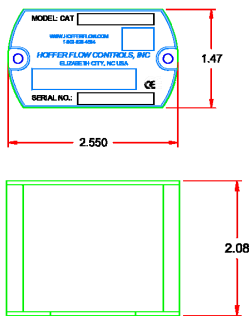
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### ENCLOSURE OPTIONS

#### General Purpose Enclosure



#### DIN Style Enclosure



#### Style E3 & E6 Certified Ratings

##### CSA/FM:

Divisions: Class I, Division 1, Groups BCD; Class III, Division 1, Groups EFG; Class III; Type 4X;  
Zones CAN: Ex d IIB+H<sub>2</sub> T6/T5; Gb; Ex tb T80°C/T86°C IIIC Db; IP66;

Zones USA: Class I, Zone 1, AEx db IIB+H<sub>2</sub> T6/T5; Gb; Class I, Zone 21, AEx tb T80°C/T86°C IIIC Db; IP66

##### ATEX/IECEX:

II 2 G Ex db IIB+H<sub>2</sub> T6/T5 Gb

II 2 D Ex tb IIIC T80°C/T86°C Db; IP66

T6: -40°C ≤ Ta ≤ +79°C; T5: -40°C ≤ Ta ≤ +85°C

### ORDERING INFORMATION

Model CAT1- ( ) - ( ) - ( ) - ( )

#### ENCLOSURE STYLE

- 1 GENERAL PURPOSE ENCLOSURE
- D 2" LONG DIN RAIL MOUNT SINGLE UNIT. UP TO 20 CAN BE MOUNTED ON A SINGLE RAIL.
- E3(\*) † EXPLOSION-PROOF ENCLOSURE
- E6(\*) † STAINLESS-STEEL EXPLOSION-PROOF ENCLOSURE

\* INSERT "M" FOR M20 THREAD. M20 THREAD NOT AVAILABLE IN CANADA FOR STYLE E6 ENCLOSURES.

† FOR CERTIFIED SYSTEM SPECIFY "CFX" OPTION WHEN MOUNTED ON FLOWMETER OR "C" OPTION FOR REMOTE MOUNT.

#### LINEARIZED ANALOG OUTPUT

- 7 4 TO 20 MA UP TO 20 POINTS. ACCURACY +/- 0.02% OF FULL SCALE.

#### INPUT POWER

- D 8 TO 24 VDC LOOP POWERED

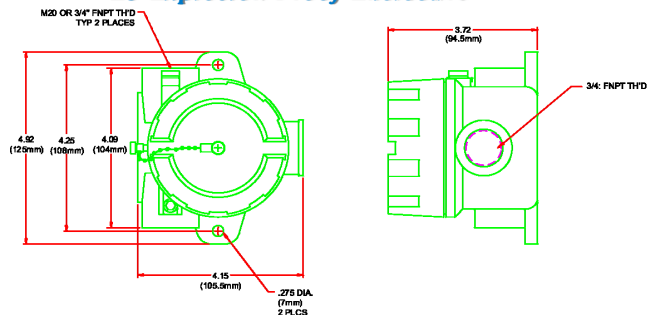
#### SPECIAL FEATURES

- CE MARK REQUIRED FOR EUROPE
- SP ANY SPECIAL FEATURES THAT ARE NOT COVERED IN THE MODEL NUMBER, USE A WRITTEN DESCRIPTION OF THE -SP.
- CFX 6.75" LONG RISER AND UNION FOR EXPLOSION-PROOF SYSTEM CERTIFIED ENCLOSURES MOUNTED ON TURBINE. USED WITH "X" RISER TURBINE OPTION. NOTE: IF PROCESS TEMP IS < -40°C OR > 79°C, EX-PROOF ENCLOSURE MUST BE MOUNTED REMOTELY.
- C REMOTE MOUNTED FOR EXPLOSION-PROOF SYSTEM CERTIFIED ENCLOSURE. NOTE: "X" RISER, CERTIFIED UNION, REDUCER AND ENCLOSURE (TO BE SPECIFIED) AND MOUNTED ON FLOWMETER.
- X NO SPECIAL FEATURES

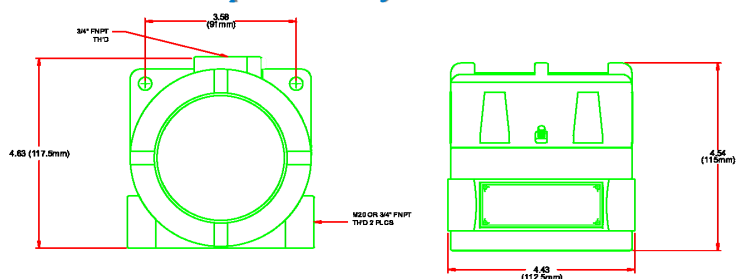
#### NOTES:

1. IF ENCLOSURE IS MOUNTED ON TURBINE FLOWMETER, RISER MUST BE SPECIFIED ON METER.
2. INPUTS: ACCEPTS MAGNETIC COIL ONLY.
3. IF THE CAT IS SHIPPED UNCALIBRATED OR IS RECALIBRATED IN THE FIELD, THE WINDOWS BASED SETUP KIT MUST BE PURCHASED. CONTACT FACTORY.

#### E3 Explosion-Proof Enclosure



#### E6 Explosion-Proof Enclosure



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The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.



#### Hoffer Flow Controls Quality Management System

