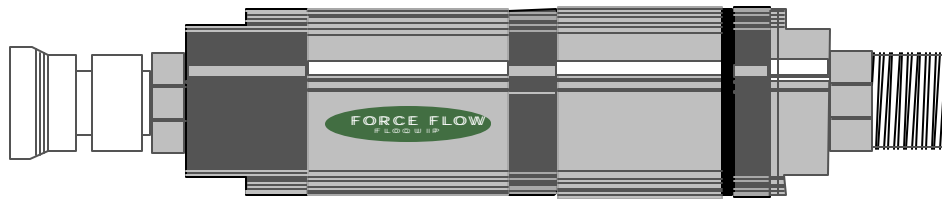


SATELLITE⁷

4-20mA Intrinsically Safe Transmitter for Hydraulic Scales



Force Flow / Floquip's SATELLITE Transmitter Model MA-420V measures the pressure of the hydraulic Load Cell System and converts the pressure to a standard 2-wire, 4-20mA analog signal that is proportional to the weight on the scale. The strain gauge sensing technology at the heart of this transmitter provides accurate repeatable and highly reliable performance.

- 0.25% Accuracy
- Compact Rugged Construction
- 3:1 Turndown
- RFI Protection
- Reverse Polarity Protection
- Overrange Protection
- Certified Intrinsically Safe FM
- Five (5) Year Factory Warranty

1150-d Burnett Ave, Concord, CA 94520 USA

800-893-6723

Ph: 925-686-6700

Fax: 925-686-6713

www.forceflow.com / info@forceflow.com

REF: T4\O&M\ACCESSRY\TRANV_A.tcw (A06V.pdf) (WEB: TRANV_A.pdf)

performance specifications

Accuracy +/- 0.25%
 Linearity +/- 0.25%
 Repeatability +/- 0.10%

Hysteresis +/- 0.10%
 Stability +/- 0.50% Typical (six mos.)
 Response Time <10 m sec @ 63% Full Scale

physical specifications

Electronic Housing: NEMA 4X
 Weight: Approximately 2 lbs (0.9 kg)
 Electrical Connection: 1/2-14NPT or PG 13.5

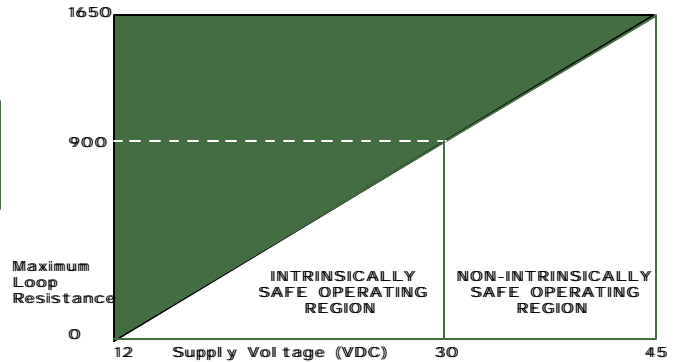
operating conditions

INFLUENCE OPERATING LIMITS
 Ambient Temp. -40 to +80 deg. C (-10 to +170 deg. F)
 Supply Voltage 9.0 to 40 Vdc
 Output Load 0 to 1500 ohms @ 40VDC

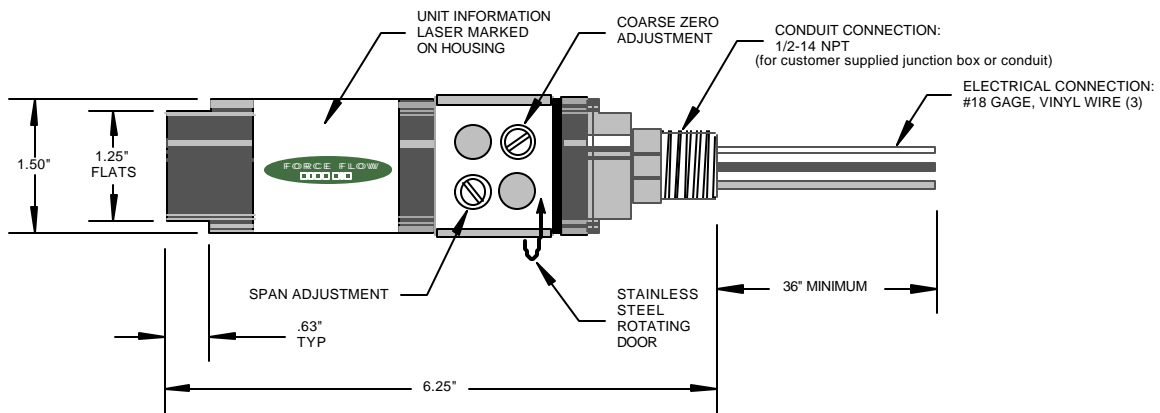
certification

FM Certified Intrinsically Safe for:
 Class I, Div. 1, Groups A B C D
 Class II, Div. 1, Groups E F G
 Class III, Div. 1 suitable

Power Supply & Load Limitations Electrical Characteristics



ALL DIMENSIONS ARE NOMINAL,
 IN INCHES AND FOR REFERENCE
 PURPOSES ONLY.



typical specifications

Scale(s) shall be equipped with a transmitter that outputs a 4-20 mA signal which is proportional to the gross weight on the scale.

Transmitter shall be loop-powered by an external source ranging from 12 to 45v dc. Transmitter shall be certified "intrinsically safe" by fm standards when powered by a supply voltage that is less than 30v dc. Transmitter shall include internal rfi protection. Transmitter shall utilize a strain gauge sensing element.

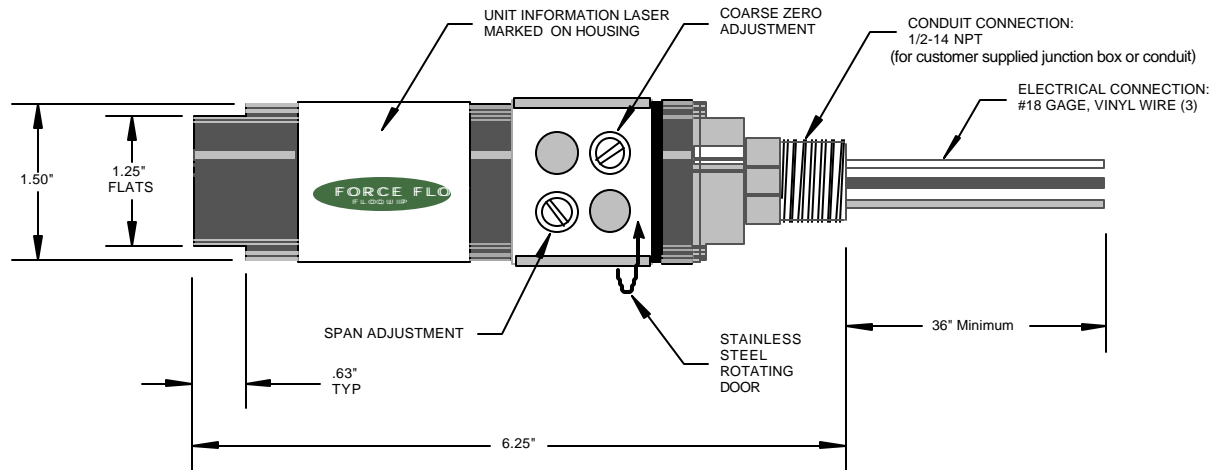
Transmitter shall have an accuracy better than +/- 0.25% full scale. Turn down ratio shall be 3:1. Transmitter shall allow an adjustment range of 50% of span to compensate for varying tare weights. Transmitter shall carry a minimum of a Five (5) Year Factory Warranty. "Limited" Warranties shall be considered unacceptable.

Transmitter shall be SATELLITE Model MA-420 as manufactured by force flow equipment / floquip, 1150-d burnett avenue, concord, ca 94520 USA.

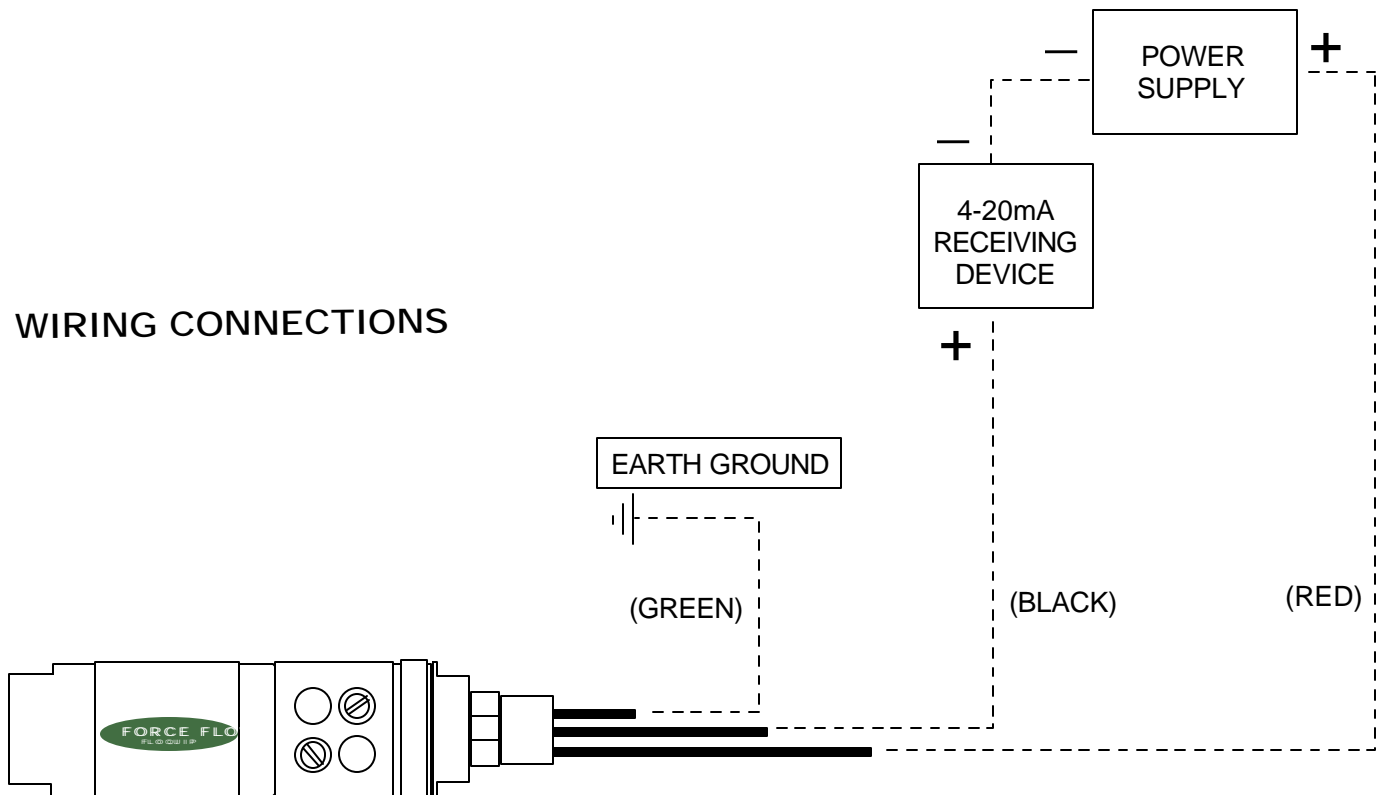
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DIMENSIONAL DRAWING

All dimensions are nominal, in inches and for reference purposes only.



WIRING CONNECTIONS



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C.2.104

VARYING TARE WEIGHT APPLICATIONS

1. WIRE TRANSMITTER TO COMPUTER OR OTHER INTERFACE.

Before proceeding to operational steps, be sure transmitter is wired properly per wiring instructions.

2. SET SPAN VALUES ON COMPUTER OR OTHER INTERFACE.

When setting parameters on your computer interface, you must first set the span mode. The following values are used for the different capacity scales as follows:

Dial Readout	@ 4 mA	@ 20 mA
Drum 800 lbs.	0 lbs.	800 lbs.
Drum/Tote 1,000 lbs.	0 lbs.	1,000 lbs.
Tote/Ton 4,000 lbs.	0 lbs.	4,000 lbs.
Ton 8,000 lbs.	0 lbs.	8,000 lbs.
Ton 12,000 lbs.	0 lbs.	12,000 lbs.
Ton 16,000 lbs.	0 lbs.	16,000 lbs.
Ton 20,000 lbs.	0 lbs.	20,000 lbs.
Ton 24,000 lbs.	0 lbs.	24,000 lbs.

3. SET SCALE ZERO

With frame empty (no tank on frame), set scale ZERO (4mA), using zero pot on transmitter.

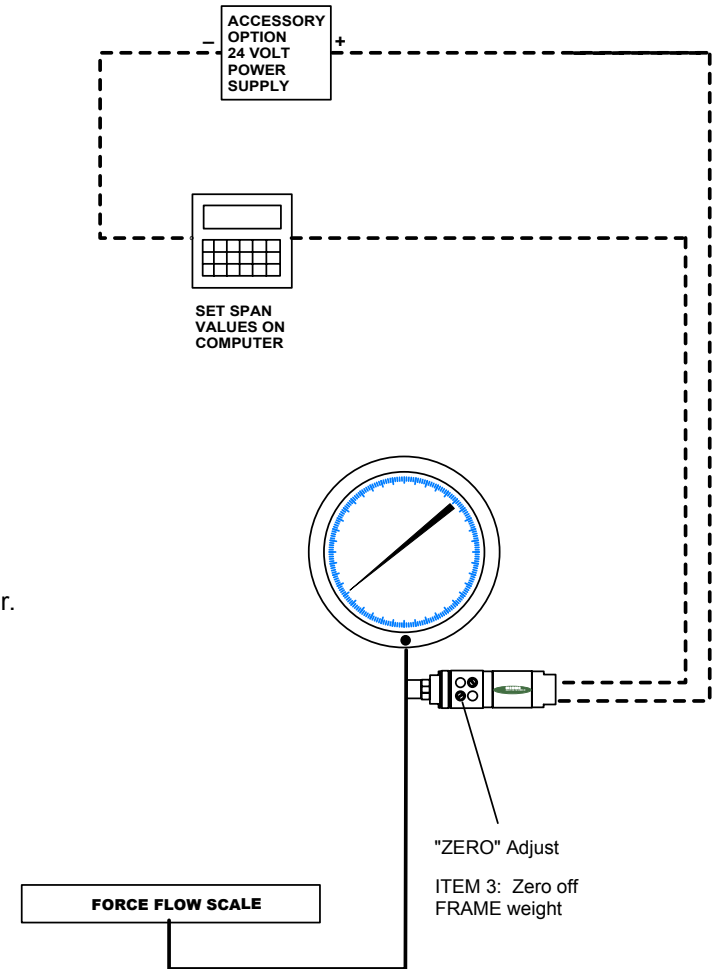
4. PLACE FULL TANK ON SCALE

A full tank should give you a readout of tank tare weight plus chemical contents.

5. SUBTRACT TARE WEIGHT FROM GROSS READING:

To read net contents, write a program on your computer to subtract the TANK WEIGHT from the GROSS WEIGHT. Because tare weights vary, you must key in a new tare weight each time a new tank is loaded.

DO NOT ADJUST THE SPAN ON TRANSMITTER (Span is factory calibrated).



C.2.105



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File: T4\O&M\CYLHYD\GENTRANPORT.tcw (A10.pdf)

**COMPUTER SET-UP FOR
 4-20mA TRANSMITTER
 in PORTABLE TANK Applications**

Drawn by: SLP
 Date: 10/22/02
 Revised: 11/19/02
 Scale: NONE

Drawing Number
30469