

Truflo

LSS Series Insertion Flow Meter

1/2" to 24", Display, Total, Freq., Analog & Alarm Outputs, Modbus RTU

DESCRIPTION

Series LSS flow meters are insertion paddle type and feature all plastic wetted components suitable for a wide range of media compatibility.

A large LED Display provides local readout of flow rate and flow total. Units of measure and alarm setpoint are readily selected via push buttons on the instrument face.

A variety of outputs including frequency, 4-20 mA and alarm are available.

Modbus 485 communications option provides an interface with a building automation or monitoring system.

SPECIFICATIONS

GENERAL

Pipe Sizes: 1/2" to 24"

Flow Velocity range: 0.33 to 26 ft/s (0.1 to 8 m/s)

Supply Voltage: DC 14 to 28V

Measuring Accuracy: $\pm 0.75\%$ Full Scale

Repeatability: $\pm 0.5\%$ Full Scale

Engineering Units: LPM, M³/h

Input Sampling (Output Responses): 6 Cycles/Sec.

Readout Range:

0-99999 (Flow Rate)

0-999999999 (Totalizer)

Relay Output: Dual Adjustable Set Points, programmable hysteresis & time delay

Relay Contact Output: 30VDC, 3 Amp, resistive

Analog Output: 4-20mA

Protection Class: IP66 NEMA 4X

RS-485 Baud Rate: 19200/9600/4800/2400

RS-485 Protocol: Modbus RTU Mode

Output Frequency: 60.5Hz per m/s nominal velocity (18.45Hz ft/s)
(Max. 10Hz (totalizer last digit))

Pulse Output Type: Transistor NPN Open-Collector (Max. DC60V/100mA)

LED Display: Bright Red or Green LED (0.4" High)

Parameter Setting: Push Button

Memory Mode: Non-Volatile E2 PROM Memory

Sensor Body Material: Natural PVDF

Rotor Material: PFA Teflon

Shaft and Bearing Material: Zirconium Cermaic (ZrO₂)

O-rings Material: FKM (Viton)

Display Housing Materials: Polyimide 66 + PBT + 15% Glass Filled (UL94V-0)

Measuring Viscosity Range: 0.5 to 20 Centi Stokes (cst)

Maximum Particle Size: <10% (Particles in flow stream) or <0.5 mm² size

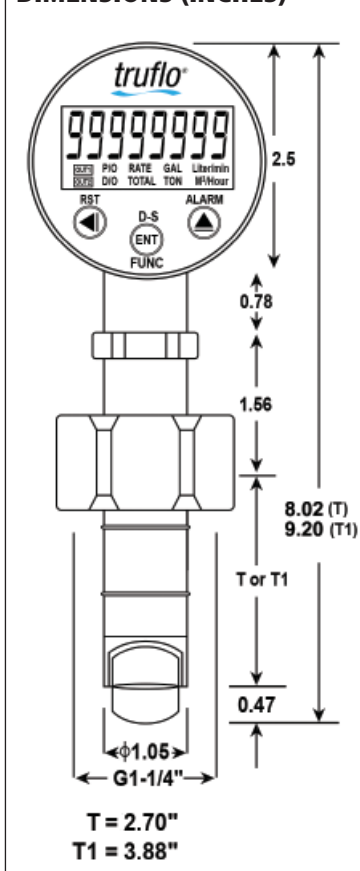
Max Operating Pressure/Temperature: 200 psi @ -30 C (-22 F) to 30°C (86F);
36 psi @ 90°C (194F)

Storage Temp: -30 to 80°C (-22 to 176F), 20 to 90RH Non-Condensed

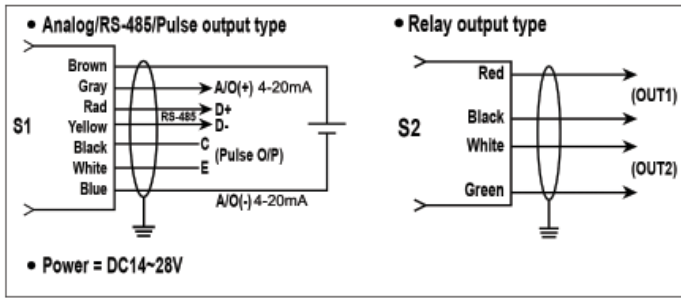
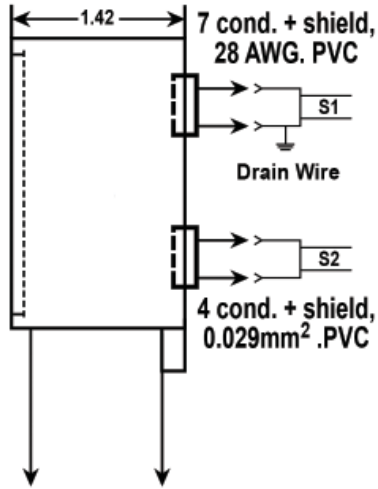
Certification: EN 55022:1998/A1:2000 Class A



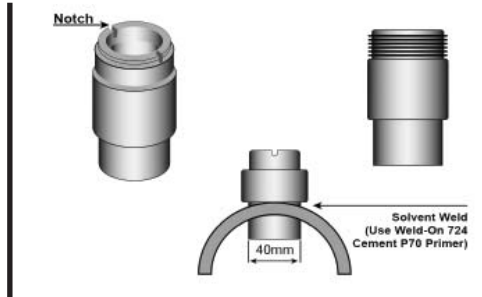
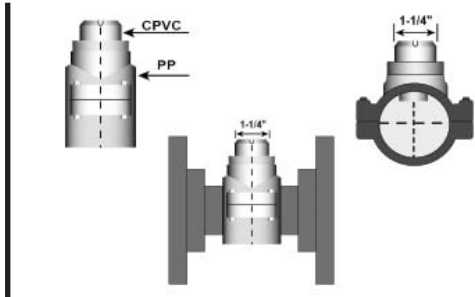
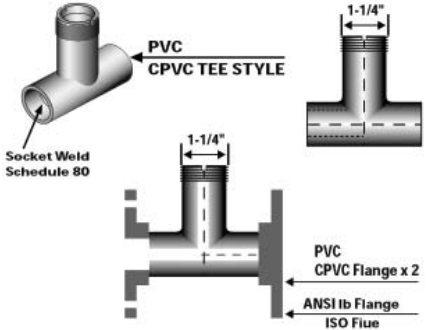
DIMENSIONS (INCHES)



WIRING



FITTINGS- SCHEDULE 80 PVC/CPVC



Model	Size	Sensor Length	Description
PT010	1"	T	PVC Tee fitting Socket
PT015	1-1/2"		
CT015	1-1/2"	T	CPVC Tee fitting Socket
CT020	2"		
PT020	2"	T	PVC Tee fitting Socket
PT080	3"		
CT030	3"	T	CPVC Tee fitting Socket
CT040	4"		

Model	Size	Sensor Length	Description
SA20	2"	T	CPVC + PP Clamp Saddles
SA025	2-1/2"		
SA030	3"	T	PP Clamp Saddle + PVC adaptors
SA040	4"		
SA060	6"	T1	
SA080	8"		
SA100	10"		
SA120	12"		
SA140	14"		

Model	Size	Sensor Length
PLGS-GT	0.5"-4"	T
PLGS-T1	6"-24"	T1

ORDERING INFORMATION

- 1) ORDER FITTINGS (SEE FITTINGS)
- 2) ORDER FLOW METER (SEE BELOW TABLE)

MODEL CONFIGURATION: LSS-AB-CDEFGH
EXAMPLE: LSS-50-23NPF8

A	B	C	D	E	F	G	H
Sensor Body	Sensor Length	Alarm Output	Analog Output	RS-485 Output	Pulse Output	O-rings	Cable Length
5= Natural PVDF 3= PP	0= 2.7" (T) 1= 3.88" (T1)	2= 2 Relays	2= 1-5 VDC 3= 4-20 mA	N= None Y= RS485	P= Pulse Output	F= FKM E= EPDM	8= 8M Std C= Custom

OUTPUT FLOW CONVERSION

K factors to convert pulse output to liters or gallons are located in the instruction manual.

$$Q_v = f/k$$

Q_v = Volume Flow Rate, liters per second

f = Output Frequency (Hz)

k = k factor (pulses/liter- divide by 3.785 for pulses/gal)