



Flow Transmitter

Infrared-Rotor Technique

MODEL: FIT40

Low-viscosity Liquids
and some gases



- MAINTENANCE-FREE
- VERY ACCURATE & RELIABLE
- PROGRAMMABLE FLOW RATE RANGE
- PROGRAMMABLE LOCAL LED DISPLAY
- PROGRAMMABLE DIRECT OR INVERSE OUTPUT
- CURRENT OR VOLTAGE OUTPUT (PROGRAMMABLE)

INTRODUCTION

Indumart FIT40 Flow Transmitter is a very accurate and reliable instrument which indicates the flow rate on its 3-digit LED display and converts flow rate input, directly or inversely, to a current or voltage output. The output signal and its direction are programmed by the user. The instrument can be locked to be tamper-proof.

The maximum flow range is between 0.5 and 20 l/min (0.13 to 5.15 US. gal/min). Other ranges within the maximum range of the FIT40 maybe programmed by the user. For other units of flow rate, the adjustable display maybe programmed by the user to indicate the desirable value.

The IR-Optical flow sensor is a precise volumetric flow meter for clear and low-viscosity liquids (suitable for water) and some of gases*. The principle of operation is when the incoming liquid is forced into a twisting motion by spiral surfaces molded into the inflow section, it causes a miniature, friction free rotor to turn. Each time the rotor spins, the blade intercepts a beam of infrared light, which in turn generates a series of pulses that can be measured. The rotor design prevents air or gas bubbles from becoming trapped in the flow tube; hence making the IR-Optical flow sensor extremely accurate. The precision of the IR-Optical measurement of flow is not influenced by either the pressure or volume variations.

The case and wetted parts of the FIT40 transmitter are from non-metal material which are resistant to many chemically aggressive media and can operate with media up to 90°C. The case is free mounting. However, radial, axial or DIN-rail mounting can be ordered separately. The process connection is 3/8" M.

* please consult Indumart technical department.

SPECIFICATIONS

Flow Range	0.5 to 20 l/min of clear liquid <i>(The range may be programmed by the user to a minimum of 1 l/min)</i>
Liquid Viscosity	1...1000 CST
Accuracy	1%
Reproducibility	0.3%
Interchangeability	2.25%
Output Signal	0...20 mA, 4...20 mA; 3-wire 0...10 V (selectable by user) <i>(Output may be set to be directly or inversely proportional to the flow rate)</i>
Output Load	750 Ω @ 24 V & 20 mA
Supply power	15...32 VDC, Nominal 24 VDC
Power Consumption	55 mA maximum
Case	Hard ABS/PC plastic
Wetted Parts	PVDF, Viton, Vectra, EPDM
Process Connection	2 x 3/8" male
Electric Connection	4-pin M12 connector <i>(supplied by Indumart with the transmitter)</i>
Display	3-digit LED; 14 mm high digits
Display Range	-99 to 999 (adjustable by user) <i>(This feature maybe used by the user to indicate various units of flow rate)</i>
Display Resolution	0.1; Decimal point set by user
Display Accuracy	0.2% FS
Display Thermal Error	Typically 0.01%/°C
Medium Temperature	-20...90°C
Ambient Temperature	-10...65°C
Medium Pressure	230 psi (16 bar) maximum
Environ. Protection	IP65
Dimensions	105 x 92 x 60 mm (WxHxD)
Weight	250 grams (0.55 lb) max.

The FIT40 maybe combined with the CTU25 flow totalizer to store the total flow and control the flow system.

