MODEL TR01-1
TOTALIZER - TRANSMITTER
SOLID STATE CONSTRUCTION
PULSE RATE OUTPUT
3 - WIRE CIRCUIT

DESCRIPTION

MODEL TR01-1 TOTALIZER-TRANSMITTERS provide a totalization of flow volume and a pulse rate output signal proportional to the rate of flow when mounted on our meters. The unit features a magnetically driven totalizer, and solid state construction.

INSTALLATION is normally made at the factory when the meter is assembled, but installation may be made in the field by removing the standard totalizer assembly, and attaching the totalizer-transmitter to the meter head. The unit is furnished complete with all screws and o-rings necessary for installation.

CONSTRUCTION of the totalizer-transmitter features an o-ring sealed housing conforming to NEMA 4X standards.

TOTALIZER is o-ring sealed and magnetically coupled with the driving mechanism, and features a six digit totalizer with a full 3" diameter, 100 division, center sweep dial that permits extremely accurate readings for timing purposes in determining flow rates. The totalizer dial can be furnished in gallons, cubic feet, acre feet, or any standard liquid measuring units. The bonnet, with padlock hasp, can be positioned in four different directions for the easiest possible reading when the meters are mounted in unusual positions.

TRANSMITTER utilizes an optic switch actuated by a slotted cam. The standard pulse rate output (open collector transistor output) is 10 pulses per second at the maximum flow range of the instrument that the transmitter is controlling. Other pulse rates available upon request. (1200 PPM max.) A three-lead shielded cable, 4 feet long, is furnished with each transmitter.

O-RING SEALS are used at all points where seals are required, making the totalizer-transmitter mechanism completely immune to any of the corrosive effects of atmospheric moisture or the liquids measured by the meter assembly.

SPECIFICATIONS

ACCURACY
Pulse output: plus or minus 2.0% of actual flow within the range specified for each meter size.

TEMPERATURE RANGE
140° F Maximum. Consult factory for special construction for higher temperatures.

POWER SUPPLY
Range: 10-30 VDC; nominal voltage is 24 VDC as supplied by our power supply Model IN-36-1, available separately.

Max. consumption of transmitter is 30 mA.

FLOW RANGE
Acceptable for each transmitter unit is the same as that for the meter to which the unit mounts.

MATERIALS
Used in construction are chosen for their durability and immunity to the corrosive effects of atmospheric moisture and the liquids measured by the meter assembly.

OUTPUT SIGNAL

The TR01-1 has four output configurations:
1.) npn, "open collector" type 
2.) O-8VDC powered square wave 
3.) npn, "open collector" type with total input/output isolation. 
4.) O-8VDC powered square wave with total input/output isolation.

Open collector ratings:
Maximums are for signals between P2 and P1
Voltage: 18VDC 
Current: 60 mA DC 
Power dissipation: 100 mW

Powered pulse ratings:
Output voltage amplitude = 8VDC (min.)
Output load = 1500W (min.)
For other voltage or load requirements, consult factory.

The maximum recommended distance for transmission of an unamplified pulse signal is 5000 feet.

SHIPPING WEIGHT
4 pounds

OPTIONAL EQUIPMENT
4 non-reversing ratchet, special outputs and dual output (consult factory for special application).

ORDERING INFO
Must be specified by the customer and includes:
Serial number of meter unit is to be mounted
Maximum scale range required for pulse output
Change gears and type of dial on totalizer that is going to be replaced
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WIRING WHEN CONNECTED TO WATER SPECIALTIES INSTRUMENTS

OPTIONAL WIRING (USING SEPARATE POWER SUPPLY)

NOTE: MAX. CURRENT CONSUMPTION OF TRANSMITTER IS 60 mA.