

The 104 ROF is Flow indicator- transmitter for open channel Flow measurement. It consists of, probe mounted on open channel or on side mounted still well & Two wire transmitter unit. It utilizes SBEM's proven capacitance probes with low power Microprocessor based Electronics to give an excellent low cost solution for flow measurement in an open channel with Weirs or flumes. The head rise in the hydraulic device i.e. increase in Level is detected & using a lookup table, converted to Flow rate. Alarms on Flow Rate or Cumulative Flow, 4-20 mA Isolated output or MODBUS on RS485/232 are possible using a optional remote Flow indicator Totalizer (96 X 96).

APPLICATION:

Measurement of flow rate in the Inlet / Outlet of Filter house / Beds, Effluent Treatment Plants, Water treatment Plants and other similar applications.

SPECIFICATIONS:

TRANSMITTER UNIT:

Enclosure	: Weatherproof IP 65, Cast Aluminium polyurethane painted.
Location	: Safe area.
Temperature	: 0 - 60°C
Humidity	: 0 - 95 % Max.(noncondensing).
Display	: 6 - Digit LCD display.
Display Range	: Level = 0- 1200 mm. (Max.) *Flow = 0 - 99999 m ³ /h (with adjustable decimal point)
Accuracy	: ± 2% of FSD.
Output	: 4-20 mA with max. load 500 Ohm, at 24 VDC.
Power Supply	: 24 VDC ±10%
Calibration	: Possible through front panel keypad
Electrical connection	: Suitable for 1.0 sq.mm. size conductor (Max.)
Cable entry	: $\frac{3}{4}$ " UNF(f) (2 No.)
Mounting	: Top of channel/side of channel/Hydraulic device.

PROBE UNIT :

Electrode Material	: PTFE Wrapped SS cable.
Outer Pipe (Still well)	: SS 304.
Maximum Length	: 1500 mm
Mounting	: Vertical.
Temperature	: 60°C
Pressure	: Atmospheric.
Zero Elevation	: Up to 80 % of electrode length
Dead Length	: Min.50 mm. from bottom of electrode.
Cable entry	: $\frac{3}{4}$ " UNF(f) (1 No.)
Enclosure	: IP 65

STANDARD ACCESSORIES :

PVC, PG 11, Weatherproof glands 1No. Each.



FEATURES:

- Low cost solution.
- Easy calibration.
- Maintenance Free.
- Level to Flow conversion using a linearizer with up to 600 points.
- Higher accuracy of Flow with multipoint calibration.
- Self Diagnostic function i.e. Error Messages on display.
- ACCURACY: The overall level accuracy is better than ± 2% of probe length.
- PROTECTION: All entries are protected through password in EEPROM.
- DIGITAL READOUT : Digital LCD display of Flow rate & Level.
- EASY TROUBLESHOOTING: Indicator displays Error messages for easy troubleshooting.
- Provision of a nozzle to clean the probe without dismantling the probe

NOTES:

1. Routine Cleaning for Sensor, Nozzle is recommended, to get consistent results.
2. The remote Indicator (96X96) for indication of Flow rate is optional, 2 Set Points may be added.
3. The remote Flow indicator totalizer on cumulative Flow / Rate of Flow with two set points is also optional.
4. Interconnecting cable from Probe to transmitter should be 4 core x 1.5 Sq.mm. Conductor multistranded, shielded Cable of length 100 mtr max.
5. Canopy for Remote Indicator is recommended & is in Purchaser scope.
6. Design & accuracy of hydraulic device is NOT SBEM'S responsibility.
7. Purchaser to provide Flow Formula.
8. 24 ± 0.5 VDC ,30mA, ripple < 100 mV power supply to be arranged by purchaser, If Remote indicator is not ordered.

