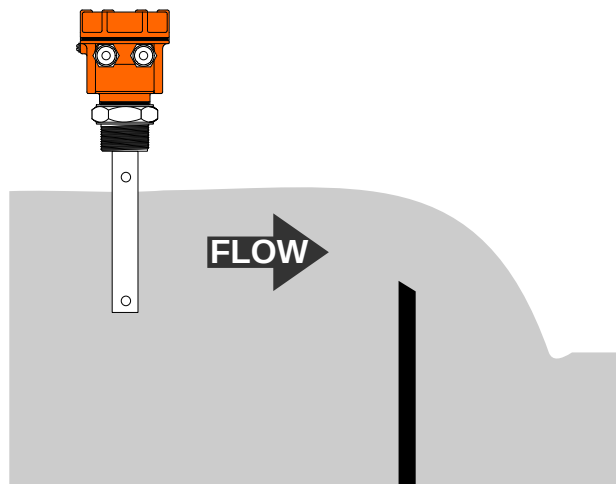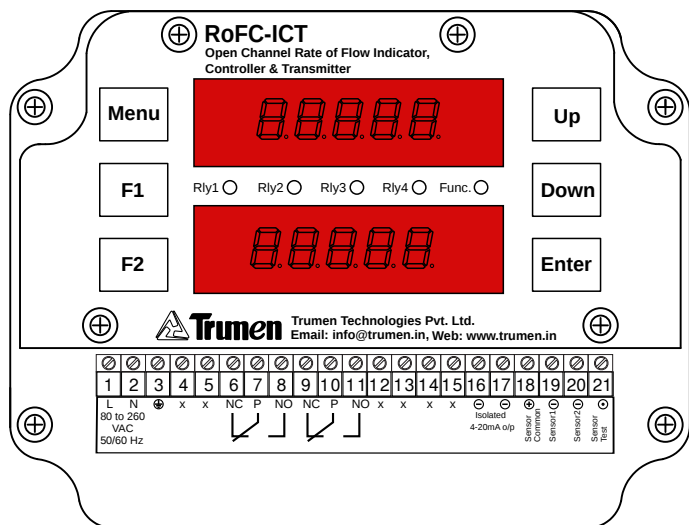# RoFC...ICT

Technical Specification Document

Capacitance Head Level Sensor Type Rate of Flow Calculator, Indicator, Controller, and Transmitter

Approvals & Certifications:

Ex CE

Trumen®
sensing matters

RoFC-ICT
Open Channel Rate of Flow Indicator, Controller & Transmitter

Menu | Up
F1 | Down
F2 | Enter

Rly1 ○ Rly2 ○ Rly3 ○ Rly4 ○ Func. ○

Trumen Technologies Pvt. Ltd.
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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
L	N	⊕	x	x	NC	P	NO	NC	P	NO	x	x	x	x	⊖	⊖	⊕	⊕	⊕	⊙

L N 80 to 260 VAC 50/60 Hz

Isolated 4-20mA o/p | Sensor Common | Sensor1 | Sensor2 | Sensor Test

FLOW

Head Height inch/mm selectable

All Wiers Supported

Head Correction Available

Relay & Alarm outputs

Head/RoF Field Selectable

Alarms with Switching Bands

General Expression

$$RoF = K_w (L - K_h H) H^n$$

L is Length of Wier
K_w is wier constant
K_h is head correction constant
H is level head
n is RoF factor
   n may have any value in
   range 1.00 to 6.00
   not limited to 0.5 steps

Wier Types and Factors

Rectangular wier without contraction

$$RoF = K_w L H^n$$

Kh=0 : no head correction

Rectangular wier with contraction

$$RoF = K_w (L - K_h H) H^n$$

head correction applied

Trapazoidal wier with contraction

$$RoF = K_w L H^n$$

Kh=0 : no head correction

Notch wier (90° or any angle)

$$RoF = K_w L H^n$$

Kh=0 : no head correction
n may have value 2.39 to 2.67

Order Code

RoFC-ICT	Rate of Flow Calculator with Indicator, Controller and Transmitter
--ICT--	Indicator, Controller and Trasmitter have following fixed specifications. Power Supply : 80 to 260VAC 50/60Hz max power consumption is 5 Watts. Enclosure : Aluminum pressure die-casted windowed IP-65 with 3 Cable entried having PG-11 glands
Rx	Number of alarm and SPDT relay outputs R1 = 1 Realy, R2 = 2 Relays, R3 = 3 Relays
--Sensor--	Sensor is always SS-304 coated with PTFE insulation, inactive length material is always SS-304. Sensor Process connection material is always SS-304 unless otherwise specified
SGxxx	Sensor Inactive (non-measurement) length 0mm or 100 to 300mm
SLxxxx	Sensor Active (measurement) length 100 mm to 3000mm
SPx	Sensor Process Connection Type (PFL: Flanged Type – description of flange - FL -at the end of order code) (PB1: BSP 1", PB2: BSP 1 1⁄2", PB4: BSP 1 1⁄4", PB5: BSP 2") (PN1: NPT 1", PN2: NPT 1 1⁄2", PN4: NPT 1 1⁄4", PN5: NPT 2") (PT1: Triclover/Triclamp 11⁄2", PT2: Triclover/Triclamp 2")(PCS: Special Process Connection)
FLxx	Flange type and bore size specified for ASA/ANSI/JIS/DIN/Custom

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