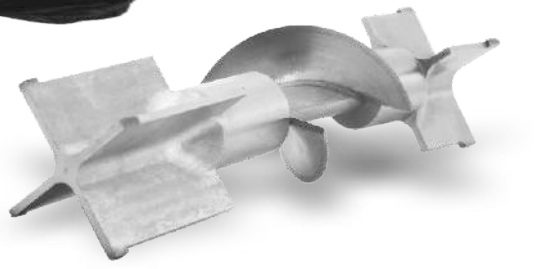
HELICAL ROTOR

(POSITIVE DISPLACEMENT FLOW METER)

HELICAL ROTOR POSITIVE DISPLACEMENT FLOW SENSOR AND METER SPECIALLY FOR REPLACE OVAL GEAR FLOW SENSOR AT SOME APPLICATION WHERE LIQUID IS NOT PURE AND REQUIRE EASY AND LOW WEIGHT FLOW METER WITH A VERY FAVORABLE LOW PRESSURE DROP BEHAVIOR THEREFORE PERFECTLY SUITED FOR THE FLOW MEASUREMENT OF VERY HIGH VISCOSITY FLUIDS. DUE TO WIDE MEASURING RANGES, HIGH ACCURACY AND RESOLUTION







PERFORMANCE DATA

Flow rates : 3~15000 L/min , Pressure up to 400 BAR, Independent of viscosity, perfect for 1~1000 mm²/s, Low pressure drop, High resolution, Pulsation-free measurement, non-sensitive to pulsating flows, Resistant to corrosion by advanced materials.

MARKETS & AREAS OF APPLICATION

Light and heavy fuel oils, Thixotropical fluids, Hydraulics Test rigs with varying viscosities and fluids, Crude oil, furnace oil, and all viscous liquid even viscosity change with Temperature. Excellent choice for laminating systems, painting systems, adhesive dispense systems, as well as batching systems for various fluids.

OUTPUT SENSOR

Power Voltage	: 5 / 12 / 24 V DC
Output Signal	: NPN/PNP
High Electric Level	: Higher Than 8 V DC (Input 12 Vdc)
Low Electric Level	: Lower Than 0.8 V DC (Input 12 Vdc)

ADVANTAGES

Wide range of design options for different media, Economical or high specification options to suit all budgets

GENERAL SPECIFICATION

Flow Tube	: SS - 304 / SS - 316 / on request
Rotor	: Cd4mCu / SS410 with Teflon coating
Shaft & Bush	: Hard Carbon
Repeatability	: 0.15%
Accuracy (standard position)	: ±0.75% RS or ± 0.50% FSD
Maximum Working Pressure	: 60 Bar / 300 Bar
Fluid & Ambient Temperature	: -20° to 120° C
Connection	: Thread (M) / Sandwich Flange / Tc End

DISPLAY WITH VARIOUS OUTPUT

Power Voltage : 24 V DC

Output Signal

Retransmit : (4 ~ 20) mA / Pulse (programmable)

Communication : RS - 485 / HART Protocol

Relay : High & Low Flow

Battery Operated Meter

Power Voltage : 3.6 V DC Lithium Batteries

Display Mode : Double row LCD as below

Q X.XXXXX Six Digit Instantaneous Flow (m^3/h, L/h, L/M, m^3/M, m^3/h, L/h, kg/M, GPM, T/h, kg/h)

XXXX.XXXX Eight Digit Cumulative Flow

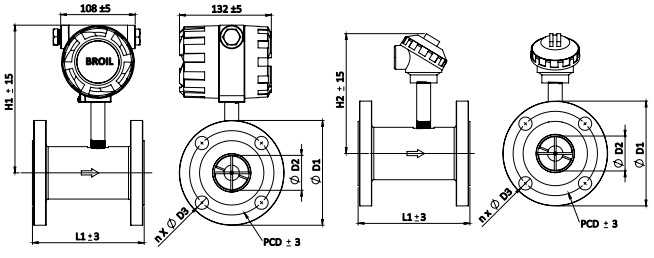
Cumulative flow : Automatically expand the display precision.

The cumulative flow values can be reset.

Power - fail protection : The instrument coefficient ensures that total flow values for the past ten years are retained even in the event of a power supply drop.

MODEL RANGE

Model Number	Line Size	Range	Liter / Pulse
BT-HTFS - 012	12 mm	400 ~ 4000 L/H	0.001818
BT-HTFS - 020	20 mm	800 ~ 8000 L/H	0.005263
BT-HTFS - 025	25 mm	1000 ~ 10000 L/H	0.010101
BT-HTFS - 032	32 mm	1500 ~ 15000 L/H	0.020833
BT-HTFS - 040	40 mm	2000 ~ 20000 L/H	0.041666
BT-HTFS - 050	50 mm	4000 ~ 40000 L/H	0.080000
BT-HTFS - 080	80 mm	10000 ~ 100000 L/H	0.32260
BT-HTFS - 100	100 mm	20000 ~ 200000 L/H	0.476190
BT-HTFS - 150	150 mm	30000 ~ 300000 L/H	0.625000
BT-HTFS - 200	200 mm	40000 ~ 400000 L/H	1.000000



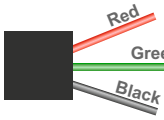
FLANGE END DIMENSION

Model Number	L 1	H 1	H 2	D 1	D 2	n x D 3	PCD
BT-HTFS - 012	80	187	154	90	14	4 X 16	60.3
BT-HTFS - 020	101	190	157	100	20	4 X 16	69.9
BT-HTFS - 025	130	193	160	110	25	4 X 16	79.4
BT-HTFS - 032	150	196	163	115	32	4 X 16	88.9
BT-HTFS - 040	170	200	167	125	40	4 X 16	98.4
BT-HTFS - 050	170	205	172	150	50	4 X 19	120.7
BT-HTFS - 080	200	220	187	190	79	4 X 19	152.4
BT-HTFS - 100	220	230	197	230	100	8 X 19	190.5

ALL THE DIMENSION IN MILIMETERS

ELECTRIC CONNECTION

PULSE OUTPUT



5-24 V DC

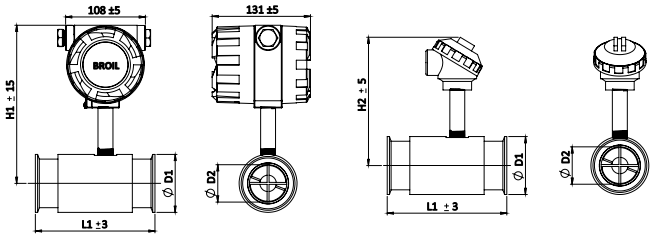
O/p signal NPN/PNP

0 V

DISPLAY OUTPUT

✶ Please Check Display Manual

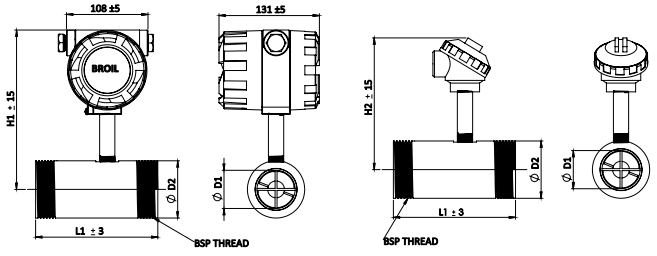
calculate pulse/liter at : 25%, 50%, 75% and 100% flow rate with pure water at room temperature



TC END DIMENSION

Model Number	L 1	H 1	H 2	D 1	D 2
BT-HTFS - 012	80	187	154	50.5	14
BT-HTFS - 020	101	190	157	50.5	20
BT-HTFS - 025	130	193	160	50.5	25
BT-HTFS - 032	150	196	167	65.0	32
BT-HTFS - 040	170	200	178	65.0	40

ALL THE DIMENSION IN MILIMETERS



THREAD END DIMENSION

Model Number	THREAD CONNECTION	L 1	H 1	H 2	D 1	D 2
BT-HTFS - 012	¾" BSP	80	187	154	14	38
BT-HTFS - 020	1"BSP	101	190	157	20	38
BT-HTFS - 025	1 ¼" BSP	130	193	160	25	46
BT-HTFS - 032	1 ½" BSP	150	196	163	32	55
BT-HTFS - 040	2" BSP	170	200	167	40	62

ALL THE DIMENSION IN MILIMETERS

