Plastic HELICAL ROTOR

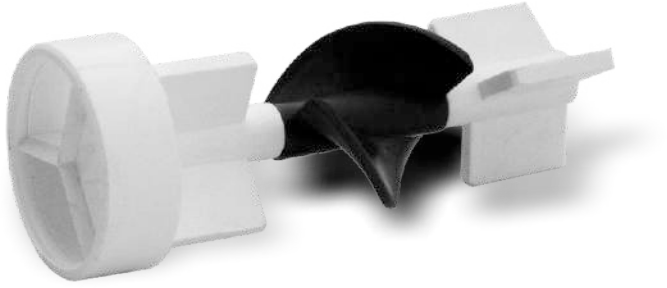
(POSITIVE DISPLACEMENT METER)



BROIL DEVELOPED AND PRODUCED PLASTIC HELICAL ROTOR FLOW SENSOR SPECIALLY FOR LIQUID DISPENSING INDUSTRIES, NOW A DAY WATER DISPENSING INDUSTRIES USE PLASTIC TURBINE FLOW SENSOR ITS K FACTOR CHANGE WITH FLOW RATE SO FOR SOLUTION WE DEVELOPER HELICAL ROTOR PLASTIC FLOW SENSOR WITH SAME PULSE K FACTOR FOR FULL RANGE ALSO PROVIDE VERY GOOD ACCURACY AND REPEATABILITY IN FULL RANGE OF MEASUREMENT.

PERFORMANCE DATA

High accuracy, up to 2.5 bar pressure, Independent of viscosity, perfect for 1 ~ 106 mm²/s, Low pressure drop compared with other positive displacement meters, High resolution, Pulsation free measurement, non-sensitive to pulsating flows Resistant to corrosion by advanced materials.



MARKETS & AREAS OF APPLICATION

Very good for Water Atm, Water Dispensing, Tea / Coffee / Wine / Juice and other food Liquid Measurement and Dispensing. Fat and oils with varying viscosities, Water / Glycol mixtures, all viscous liquid even viscosity change with Temperature,

GENERAL SPECIFICATION

Enclosure	: Pa66 + GF / PPS
Rotor	: Pa66 / POM / PPS
Shaft & Ball	: Hard SS - 316
Repeatability	: 0.25%
Accuracy (standard position)	: +/- 2% FSD
Maximum Working Pressure	: 0.25 MPa
Fluid & Ambient Temperature	: -20° ~ 80° C
Connection	: Thread (M)

OUTPUT SENSOR

A) Hall sensor

Power voltage	: 5 to 24 V DC, Low Rang 2 to 5 V DC
Output signal	: NPN open collector
High Electric Level	: Higher Than 4.5 V DC (Input 12 Vdc)
Low Electric Level	: Lower Than 0.5 V DC (Input 12 Vdc)

B) Reed sensor

C) Pick up coil - two wire/ amplified three wire option

MODEL RANGE

Model Number	Connection (M)	Range	Liter/Pulse
BT-PHTFS - 004	¼" BSP	40 ~ 400 L/H	0.000285
BT-PHTFS - 008	½" BSP	150 ~ 1500 L/H	0.001063
BT-PHTFS - 012	¾" BSP	500 ~ 5000 L/H	0.004901
BT-PHTFS - 020	1" BSP	800 ~ 8000 L/H	0.012195
BT-PHTFS - 025	1 ¼" BSP	1000 ~ 10000 L/H	0.020833

Warning / Caution : Never test Flow Sensor with compress air its damage rotor and Shaft

DISPLAY WITH VARIOUS OUTPUT

Output Signal

Communication : RS - 485

Battery Operated Meter

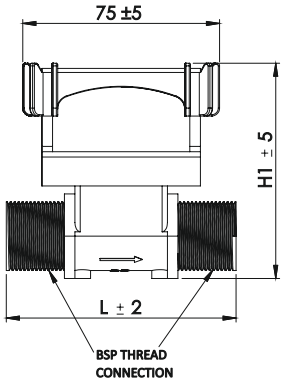
Power Voltage : 3.0 V DC Alkaline Batteries

Display Mode : Double row LCD as below

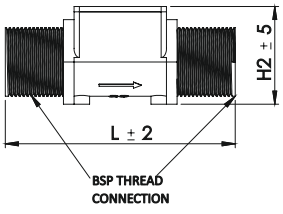
Q X.XXX	Four Digit Instantaneous Flow (LPM, GPM)
XXXX.XX	Six Digit Cumulative Flow
XXXX.XX * 100	Eight cumulative flow L
XXXX.XX * 100	Eight cumulative flow L (never reset total)

Cumulative flow : Automatically expand the display precision.

The cumulative flow values can be reset.



(Meter)



(Sensor)

THREAD END DIMENSION

Model Number	L	Thread (BSP)	H 1	H 2
BT-PHTFS - 004	61	¼"	74	27
BT-PHTFS - 008	70	½"	80	33
BT-PHTFS - 012	87	¾"	83	36
BT-PHTFS - 020	95	1"	88	41
BT-PHTFS - 025	101	1 ¼"	96	49

ALL THE DIMENSION IN MILIMETERS

ELECTRIC CONNECTION

PULSE OUTPUT



5-24 V DC

O/p signal NPN Open collector

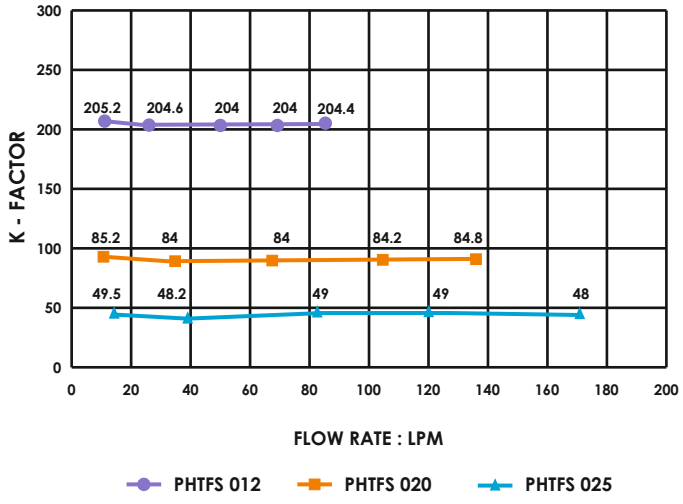
0 V

DISPLAY OUTPUT

✶ Please Check Display Manual

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

HELICAL ROTOR FLOW SENSOR 012 / 020 / 025



HELICAL ROTOR FLOW SENSOR 004 / 008

