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SS TURBINE FLOW METER(CE-144)

WE HAVE COME UP WITH RELIABLE **TURBINE FLOW METERS**. THE **TURBINE FLOW METERS** THAT WE OFFER ARE MANUFACTURED WITH THE USE OF BEST QUALITY COMPONENTS THAT IMPART STRENGTH AND ENDURANCE. OUR **TURBINE FLOW METERS** PROVIDE ACCURATE READINGS OF THE FLOW WITH AN ABSOLUTE EASE. OUR **TURBINE FLOW METERS** ARE SOPHISTICATED AND WORK WITH UTMOST PRECISION. THE **RS485** COMMUNICATIONS STANDARD IS USED BY **MEASUREMENT SYSTEMS PICKOFF** SENSOR BASED DATA ACQUISITION MODULES AND MANY INDUSTRIAL CONTROL DEVICES.

PRINCIPLE OF OPERATION TURBINE FLOW METERS

- THE OPERATION OF THE INTERNATIONAL TURBINE METER IS BASED ON THE MEASUREMENT OF THE VELOCITY OF OIL, HEAVY OIL, FURNACE OIL , WATER AND NON-ACIDIC LIQUIDS.
- THE FLOWING LIQUID IS ACCELERATED AND CONDITIONED BY THE METER’S STRAIGHTENING SECTION. THE STRAIGHTENING VANES PREPARE THE **LIQUID** FLOW PROFILE BY REMOVING UNDESIRE SWIRL, TURBULENCE AND ASYMMETRY BEFORE THE FLUID FLOWS TO THE TURBINE WHEEL.
- THE DYNAMIC FORCES OF THE FLOWING FLUID CAUSE THE ROTOR TO ROTATE. THE TURBINE WHEEL IS MOUNTED ON THE MAIN SHAFT, WITH SPECIAL HIGH PRECISION, LOW FRICTION BALL BEARINGS.
- THE TURBINE WHEEL HAS HELICAL BLADES THAT HAVE A KNOWN ANGLE RELATIVE TO THE FLUID FLOW. THE CONDITIONED AND ACCELERATED LIQUID DRIVES THE TURBINE WHEEL WITH AN ANGULAR VELOCITY THAT IS PROPORTIONAL WITH THE FLUID VELOCITY.
- THE ROTATING TURBINE WHEEL DRIVES THE INDEX HEAD WITH THE EIGHT DIGIT MECHANICAL COUNTER VIA SHAFTS AND GEARS.
- THE VOLUME AND FLOW RATE CAN ALSO BE INDICATED ELECTRONICALLY. A PROXIMITY PROBE GENERATES A SIGNAL AT EACH PASSING BLADE OF THE TURBINE WHEEL. WITH THE DEVICE-SPECIFIC K-FACTOR AND THE NUMBER OF PULSES, THE PASSED VOLUME CAN BE CALCULATED. WITH THE MEASURED FREQUENCY THE FLOW RATE CAN BE DETERMINED.
- THE ROTATING TURBINE WHEEL CAN ALSO GENERATE PULSES DIRECTLY BY PROXIMITY SENSORS THAT CREATE A PULSE FOR EACH PASSING TURBINE BLADE. BY ACCUMULATING THE PULSES THE TOTAL PASSED VOLUME AND FLUID FLOW RATE CAN BE CALCULATED.



TECHNICAL DATA:

MATERIAL OF CONSTRUCTION:

ENCLOSURE: S.S-304/S.S-316

ROTOR: S.S-304 / S.S - 316

SHAFT: HARD STAINLESS STEEL-316 WITH CARBON BUSH

ACCURACY (STANDARD INSTALLATION POSITION) : +/- 0.5 OR 1% FSD

REPEATABILITY: 0.1%

MAXIMUM WORKING PRESSURE: 6 MPa

FLUID & AMBIENT TEMPERATURE: -20 TO 120 °C

1) PULSE OUTPUT SENSOR:

POWER VOLTAGE: 12 V DC

OUTPUT: HIGH ELECTRIC LEVEL: HIGH THAN 8 VDC(INPUT VOLTAGE 12 VDC)

LOW ELECTRIC LEVEL: LOWER THAN 0.8 VDC(INPUT VOLTAGE 12 VDC)

OUTPUT SIGNAL: NPN OPEN CONNECTOR

CONNECTION: THREAD (M/F) OR FLANGE

2) BATTERY OPERATED METER :

POWER VOLTAGE: 3.3 V 10AH LITHIUM BATTERIES CAN BE USED MORE THAN 5 YEARS IN A ROW.

DISPLAY MODE:

DOUBLE ROW LIQUID CRYSTAL DISPLAY (LCD), AS FOLLOWS:

L XXX. X FOUR INSTANTANEOUS FLOW (M3 / H) OR L/H

XX. XXXXXX EIGHT CUMULATIVE FLOW (M3)

CUMULATIVE FLOW: AUTOMATICALLY EXPAND THE DISPLAY PRECISION, THE CUMULATIVE FLOW VALUES CAN BE RESET.

POWER-FAIL PROTECTION: INSTRUMENT COEFFICIENT, THE TOTAL FLOW VALUES TEN YEARS IS NOT LOST WHEN POWER SUPPLY DROP.

3) DISPLAY WITH 4 TO 20 MA OUTPUT

POWER VOLTAGE: 24 V DC

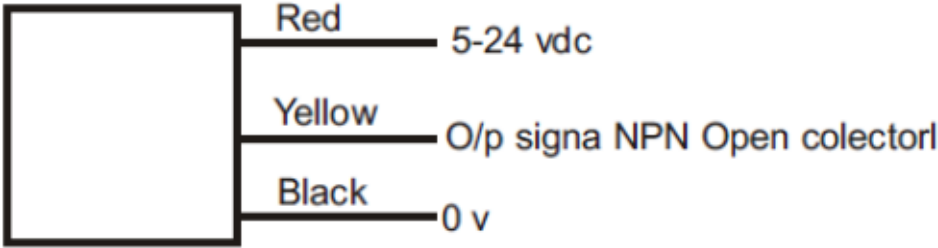
OUTPUT SIGNAL: 4 TO 20 MA



MODEL WISE TECHNICAL DATA

MODEL NO	LINE SIZE	FLOW RANGE
CE-TFS-004	04 MM	40~400 L/H
CE-TFS-012	012 MM	600~6000 L/H
CE-TFS-025	025 MM	1000~10000 L/H
CE-TFS-040	040 MM	2000~20000 L/H
CE-TFS-050	050 MM	4000~40000 L/H
CE-TFS-080	080 MM	10000~100000 L/H
CE-TFS-100	100 MM	20000~200000 L/H
CE-TFS-150	150 MM	30000~300000 L/H
CE-TFS-150	150 MM	80000~800000 L/H

ELECTRIC CONNECTION :



CALIBRATION PROCESS :

- *CALIBRATED EACH FLOW SENSOR WITH THREE PRESSURE POINT : 0.5, 4 AND 25 BAR ,
- *ALL PRESSURE CALCULATE PULSE/LITTER AT : 25%, 50%, 75% AND 100% FLOW RATE
- *CALIBRATED WITH PURE WATER

Application:

S.S. BODY AND ROTOR : FLOW MEASUREMENTS OF PHARMACEUTICAL DRUG, FOOD OIL, WATER AND ALL APPLICATION