BSUF-TTCP
Ultrasonic Flowmeter



OVERVIEW

Operation

The BSUF-TTCP wall-mount Clamp-on Ultrasonic Flowmeter family provides abundant capabilities for accurate liquid flow measurement from outside of a pipe. It utilizes state-of-the-art technologies on ultrasonic transmission/receiving, digital signal processing and transit-time measurement. The proprietary signal quality tracking and selfadapting technologies allow system to optimally adapt to different pipe materials automatically.

Application

- Water, including hot water, chilled water, sea water etc.
- Secondary sewage, waste treatment.
- Oil, including lubricating oil, diesel oil, fuel oil et.
- Chemicals, alcohol, acids
- Solvents
- HVAC, energy systems, food and pharmaceutical industries

Features

- Simple installation
- High Accuracy
- Noninvasive, no moving parts, no pressure drop, no maintence.
- Wide measuring range
- Suitable for all commonly used pipe materials
- Signal quality tracking and self-adjusting capabilities
- Automatically match transducer to pipe materials
- Velocity, volumetric and totalized flow display
- Easy to use and set up. Self-explantory menu-driving programming Reynolds number enter option
- Rich input and output functionalities
- In fact, most any liquid containing less than 5% total suspended solids(TSS) or aeration or 10000 mg/l
- Bi-directional. Totalizer for net, positive and negative flow display

Bass Ölçme Enstrümanları A.Ş.
Esenşehir Mah. Füsun Sok. No:59 Ümraniye/İSTANBUL TR-34776
+90 216 660 01 63-64
bass.com.tr

OPERATING DATA

Temperature
-40°C... +90°C
-40°C...+160°C with HT sensors

Accuracy
±1.0%

Repeatability
±0,2%

Response Time
0,5 sec.

Weight
3 kg

Language
Turkish, English

Cable
6 m standart, 300 m max.

Display
4" TFT Touchscreen Display, 480×320 Pixel Resolution

Datalogger
500000 data recording

Enclosure
IP66 for transmitter
IP68 for sensors

Strength Pipe Requirement
Upstream 10D, Downstream 5D 8D,
if a pump is near 20D (D: Pipe diameter)

Memory
Data logger (optional)

MEASURING RANGES

Velocity
0...15 m/s (bi-directional)

Line Sizes
DN25...125 for small sensor
DN80...600 for middle sensor
DN400...5000 for large sensor

ELECTRICAL DATA

Current Output
4...20 mA and 4-20mA/0...10 VDC

OCT Output
Pulse

Digital Output
4x Relay SPDT

Power Supply
10-28 VDC @ 3VA max
115/230 VAC 50/60 Hz 15%
6VA max.

Communication
RS485 Modbus RTU, HART, Profibus, Profinet, Ethernet, FF,

Wireless
Wifi, Bluetooth

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ORDERING

Ordering for Transmitter

Model	
BSUF	Ultrasonic Flowmeter

Measurement Princible	
TT	Clamp-on Transit Time

Housing Material	
CP	Plastic ABS
CL	Aluminum

Measurement Method	
F	Flowmeter
H	Flowmeter + Heatmeter

Power Supply	
AC	100...240 VAC
DC	12...36 VDC

Communication	
RS	RS485 MODBUS
ET	TCP/IP MODBUS
HR	HART
PF	Profibus
PN	Profinet
FF	Fieldbus

Wireless Communication	
NN	None
BL	RS485 MODBUS
WF	Wifi

Datalogger	
NN	None
IN	Internal 8MB
US	USB-A 16GB
SD	SD Card 16GB

Ordering for Sensors

Sensor	
BTSP	Plastic Small Sensor DN25...DN125
BTMP	Plastic Middle Sensor DN80...DN600
BTLP	Plastic Large Sensor DN400...DN5000
BTSS	AISI316 Small Sensor DN25...DN125
BTMS	AISI316 Middle Sensor DN80...DN600
BTLS	AISI316 Large Sensor DN400...DN5000

Tempreature	
ST	-40°C... +90°C
HT	-40°C...+160°C

Cable Length	
XX	Cable length (please specify as unit is meter)

Mounintg Bracket	
NN	None
BS1	Stainless Steel Mounting Bracket for Small Sensor
SS2	Stainless Steel Mounting Bracket for Middle Sensor
SS3	Stainless Steel Mounting Bracket for Large Sensor

Temperature Sensor-PT100	
NN	None
BSCH1	Clamp-on Temperature Sensor for Small Pipe
BSCH2	Clamp-on Temperature Sensor for Middle Pipe
BSCH3	Clamp-on Temperature Sensor for Large Pipe
BSCH4	AISI316 Insertion Temperature Sensor for Small Pipe
BSCH5	AISI316 Insertion Temperature Sensor for Middle Pipe
BSCH6	AISI316 Insertion Temperature Sensor for Large Pipe

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