

TDSS

Turbine Flowmeter



OVERVIEW

Operation

The Model TDSS is standard with a magnetic pick-up which produces a frequency output that is proportional to its volumetric flow rate. When paired with the LCD Flow Monitor, this compact system offers local indication of both flow rate and total flow. For further flexibility, Bass Instruments offers electronic options which convert the frequency output to an analog signal for easy electronic integration with most instruments, PLC's, and computers.

Features

- Easy installation
- High sensitivity
- Resistant to chemical fluids
- Durable and light weight design
- High accuracy
- Exclusive interior design
- Adjustable pulse output

Application

- Mechanical engineering
- Pharmaceutical industry
- Chemical processes
- Water.waste water treatment equipment
- Filtration systems



OPERATING DATA

| | |
|--------------------------|---------------------------------|
| Working Pressure | 100 bar max. |
| Temperature Limit | -40°C...120°C (ops. 150°C) |
| Accuracy | ±1 % of full scale |
| Repeatability | 0.1 % of full scale |
| Enclosure | IP65 IP67 or IP68 on request |

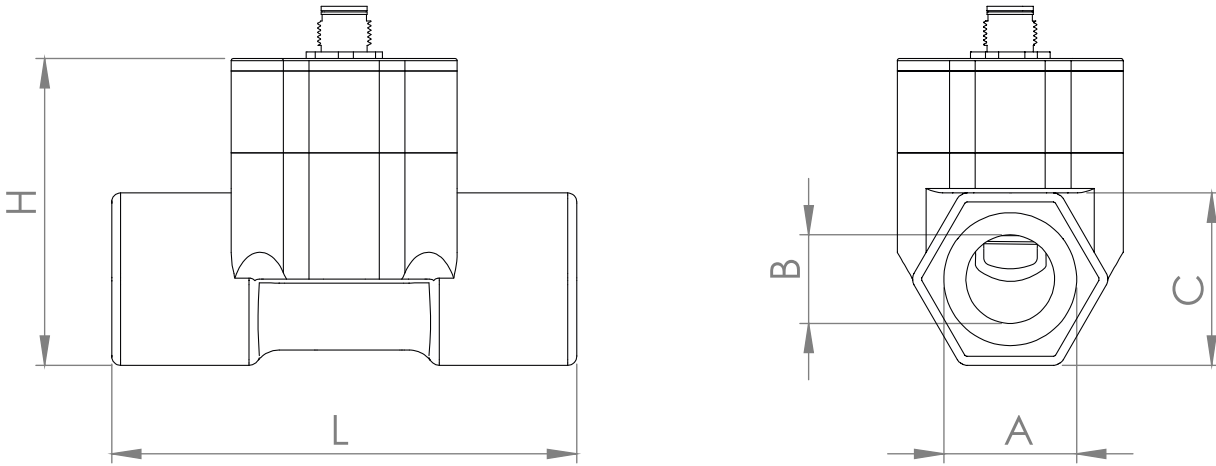
MEASURING RANGES

| | |
|------------------------|---|
| Pipe Size Range | 1/2" ... 2" for th read 1" ... 8" (DN25-DN200) for flanged |
| Flow Rate Range | 0,6 ... 335 l/min for thread 4 ... 800 m ³ /h for flanged |

MATERIALS

| | |
|----------------|--------------------|
| Body | AISI 316, aluminum |
| O-rings | FPM |
| Rotor | PTFE |
| Shaft | AISI 316 |

TECHNICAL DRAWINGS AND DIMENSIONS



| Size | A | B | C | H | L |
|------|----------|----|----|----|-----|
| DN15 | G 1/2" | 10 | 28 | 61 | 89 |
| DN20 | G 3/4" | 14 | 32 | 62 | 89 |
| DN25 | G 1" | 20 | 39 | 69 | 105 |
| DN32 | G 1 1/4" | 25 | 48 | 75 | 129 |
| DN40 | G 1 1/2" | 32 | 55 | 83 | 129 |
| DN50 | G 2" | 40 | 66 | 92 | 150 |

*Unit is mm

TDSS DATASHEET V.3 R.1



Bass Ölçme Enstrümanları Ltd. Şti.
Eseşehir Mah. Füsün Sok. No:59 Ümraniye/İSTANBUL TR-34776
+90 216 660 01 63-64
bass.com.tr



■ FLOW RANGES

| THREAD | |
|----------|---------------|
| Size | Range (l/min) |
| TDSS.015 | 3...37 |
| TDSS.020 | 5...85 |
| TDSS.025 | 10...150 |
| TDSS.032 | 15...235 |
| TDSS.040 | 25...387 |
| TDSS.050 | 40...600 |

| FLANGED | |
|---------|---------------------------|
| Size | Range (m ³ /h) |
| DN25 | 0,1...10 |
| DN32 | 1,5...15 |
| DN40 | 2...20 |
| DN50 | 4...40 |
| DN65 | 7...70 |
| DN80 | 10...100 |
| DN100 | 20...200 |
| DN125 | 25...250 |
| DN150 | 30...300 |
| DN200 | 80...800 |

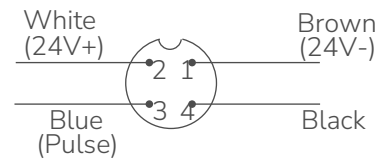
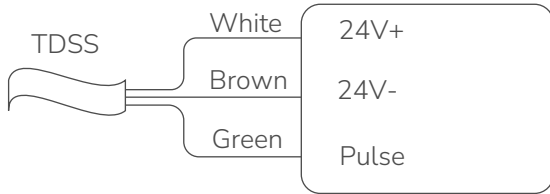
■ ELECTRICAL DATA

Signal Output Pulse (push-pull)
4...20 mA or 0...10 V DC on request

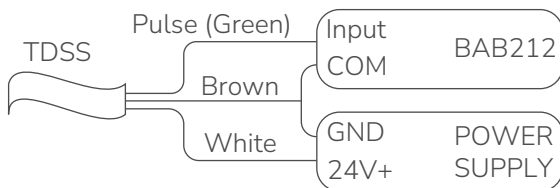
Power Supply 24±10% V DC, regulated

Electrical Connection 1 m cable
M12 connector or DIN43650A socket on request

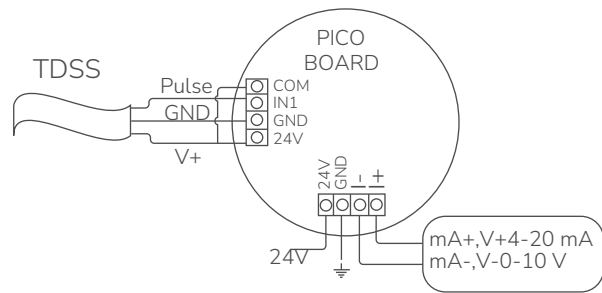
■ WIRING



With M12 Connector



With BAB212



Sensor And PICO Board Connection



■ OPTIONS, ELECTRONIC

| | |
|--------------------------------|---|
| Selectable Inputs | 4-20 mA,0-10VDC,0-5VDC,Pulse (PNP,NPN) |
| Operating Media | Liquids |
| Selectable Outputs | 4-20 mA , 0-10VDC and Pulse |
| Communication | RS485-MODBUS (HART on request) |
| Analog Input Resolution | 10 bit |
| Digital Input Speed | 10 KHz, max |
| Digital Output Speed | 50 Hz max |
| Display | TFT, 4.3" 480x272 pixel resistive touchscreen |
| Humidity | %10...85 non-condensate |
| Power Supply | 24 VDC, \pm %10 |
| Power Consumption | 3 W |
| Dimensions | 144 x 144 mm (front) ,134 x 134 mm (rear), depth 100 mm |
| Enclosure | IP65 (front) , IP66 , IP67 on request |



■ ORDERING

| | | | | | | | |
|----------------|-----|---|----|----|----|----|--|
| TDSS | | | | | | | Turbine Flowmeter |
| Bore Size | XXX | | | | | | Please look at the flow range table for code |
| Connection | | T | | | | | Thread |
| | | F | | | | | Flanged (please specify in order) |
| Body | | | 01 | | | | Aluminum |
| | | | 04 | | | | AISI 304 |
| | | | 06 | | | | AISI 316 |
| Output | | | | 01 | | | Pulse |
| | | | | 02 | | | 4...20 mA |
| | | | | 03 | | | 0-10 V DC |
| Enclosure | | | | | 01 | | IP65 |
| | | | | | 02 | | IP67 |
| Display | | | | | | N | None |
| | | | | | | C | Compact |
| | | | | | | Y | BAB212(remote) |
| Hazardous Area | | | | | | N | None |
| | | | | | | Xd | Exd IIB T4 Gb |

