

# TDSS.F

## Turbine Flowmeter



## OVERVIEW

### Operation

The Model TDSS.F 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.

### Application

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

### Features

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



## OPERATING DATA

### Working Pressure

63 bar maximum

### Temperature Limit

-40°C...120°C (ops. 150°C)

### Accuracy

±1% of full scale (ops. ±0,5%)

### Repeatability

0.1% of full scale

### Enclosure

IP65

IP67 or IP68 on request

## MEASURING RANGES

### Pipe Size Range

1/2" ...2" for thread

1"...8"(DN25-DN200) for flanged

### Flow Rate Range

0,6...335 l/ min for thread

4...800 m³/h for flanged

## MATERIALS

### Body

AISI 316, aluminum FPM

### O-rings

FPM

### Rotor

PTFE

### Shaft

AISI 316

## ELECTRICAL DATA

### Signal Output

Pulse (push-pull)

4...20 mA or 0...10V DC on request

### Power Supply

24±10% V DC, regulated

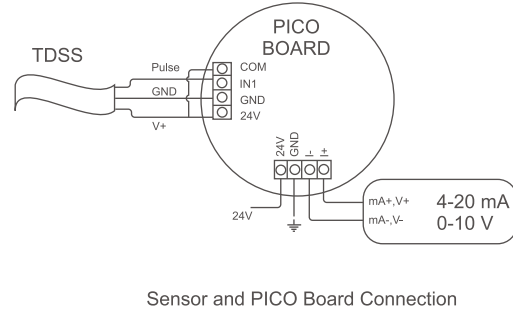
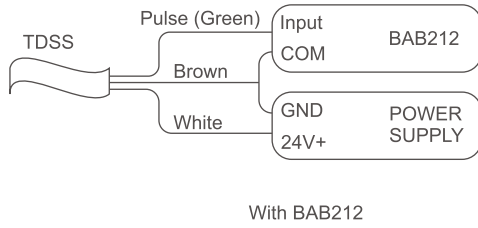
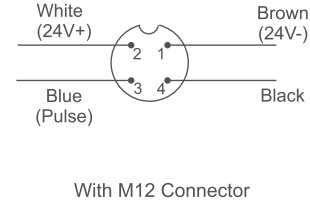
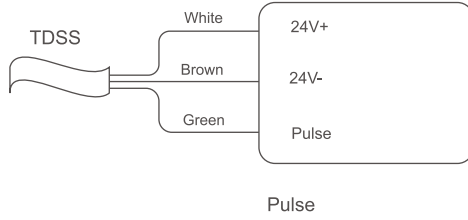
### Electrical Connection

1 m cable

M12 connector or DIN43650A socket on request



## WIRING



## 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 (m³/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     |



## OPTIONS ELECTRONIC

### BAB 212

| Parameter               | Specification                                           |
|-------------------------|---------------------------------------------------------|
| 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

| Model  |                   |
|--------|-------------------|
| TDSS.F | 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 |
| 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 |

