## Endress+Hauser

People for Process Automation



Prosonic Clamp-On Sensors

## Greyline

Precision Flow Measurement
An ONICON Brand

**NEW!**

### Controls flow from outside the pipe



### Endress+Hauser Prosonic 91W Transit Time Flowmeters

- **Non-invasive flow metering with clamp-on sensors**
- **Quick, easy setup and operation**
- **Very accurate in a wide range of applications and pipe types**

Transit time flowmeters are the most versatile, trouble-free and accurate flowmeters available. Easy to install, with non-contact clamp-on flow sensors and first-rate electronics, the Endress+Hauser Prosonic 91W is one of the best, most reliable transit time flowmeters on the market.

The Prosonic 91W features quick setup menus with built-in pipe and lining material combinations. Stainless steel NEMA 4X sensors and a robust single-channel NEMA 4X display/transmitter stand up to even the most harshest industrial areas. The remote-mount display/transmitter offers push-button control, 4-20 mA output, HART® protocol and pulse/frequency output.

Other outstanding features include a bidirectional rate/totalizer and high accuracy of up to ±0.5%. Choose from three models for pipe ID sizes from 2 to 80". Other options are available, such as additional sensor cable lengths, smaller sensor assemblies for pipe as small as $1/2$", insertion-type sensors and flanged inline sensors. Contact USABlueBook for more information.

**Includes:** two clamp-on sensors with 30 feet of cable and a simple-to-use sensor installation kit for no-hassle installation.

| Fluid/application: | full pipe, clean to slightly dirty liquids <5% solids |
|---|---|
| Accuracy: | ≤3% of reading typical |
| Repeatability: | ±0.3% at >1 ft/sec velocities |
| Display: | 2-line LCD, 3 programming pushbuttons |
| Outputs: | 4-20 mA, HART, pulse/frequency |
| Velocity range: | 0 to 50 ft/sec |
| Pipe size range: | 2 to 160" ID |
| Pipe materials: | any sonically conductive material including composites and lined pipe |
| **Operating conditions** | |
| Sensors: | -4 to 176°F |
| Electronics: | -14 to 140°F |
| Power: | 85-260 VAC, 45-65 Hz |
| **Enclosure** | |
| Transmitter: | IP67/NEMA 4X, powder-coated aluminum; wall- or pipe-mount |
| Sensors: | IP67/NEMA 4X, 304 stainless steel, clamp-on type |
| Transmitter dimensions: | 5.9"W x 7.87"H x 7.48"D |
| Approvals: | FM and CSA for hazardous areas |

| PIPE SIZE RANGE | STOCK # | EACH |
|---|---|---|
| 2 to 8" | 10721 | $ |
| 8 to 24" | 10722 | |
| 24 to 80" | 10723 | |

### Greyline DFS 5.1 Doppler Flow Switches

- **Protects pumps from running during no-flow conditions**
- **Easy-to-read LED flow bar graph**

Control the flow of liquids containing bubbles or solids in closed pipes with the Greyline DFS 5.1 switch. Its noncontacting sensor excels where contacting sensors fail—great for wastewater, cooling water, slurries, sludge and other difficult applications. Flexible and adaptable, it's ideal for triggering high/low flow alarms, controlling pumps, and protecting pumps in no-flow conditions.

Setup and operation are fast and easy. The sensor straps to a pipe in minutes without shutting down flow or cutting pipe. Pin jumpers let you set relay outputs for ON/OFF (including separate setpoints with a deadband). Adjustable relay time delay helps eliminate chatter. LEDs communicate flow velocity and relay status. All electronics feature integral surge protection.

Choose from AC- or DC-powered models. Cable lengths are fixed, but are field-extendable up to 500 feet (requires shielded cable and junction box).

**Includes:** Doppler sensor, sensor mounting bracket, strap with clamp (for pipe up to 16" OD) and acoustic coupling compound.

| Accuracy: | ±2% |
|---|---|
| Velocity range: | 0.25 to 10 ft/sec |
| Pipe size: | $1/2$" to 15-ft ID |
| Display: | flow rate 16-LED bar graph, relay status LED |
| Relay: | one 5A, DPDT |
| Velocity setpoints: | on/off adjustment from 0.25 to 10 ft/sec, or high/low flow alarms |
| Relay time delay: | 0 to 80 seconds, adjustable |
| Power: | 100-240 VAC, 50-60 Hz; or 12-24 VDC (varies by model) |
| Enclosure: | water-tight/dust-tight NEMA 4X (IP67) polycarbonate with clear, shatterproof cover |
| **Operating temp** | |
| Electronics: | -10 to 140°F (-23 to 60°C) |
| Sensor: | -40 to 300°F (-40 to 150°C) |
| Sensor cable: | coaxial, fixed-length (field-extendable to 500 feet; requires junction box) |
| Enclosure dimensions: | 4.72"H x 3.54"W x 2.42"D |

| MFR # | CABLE LENGTH | POWER | STOCK # | EACH |
|---|---|---|---|---|
| DFS 5.1-A1A | 20' | 100-240 VAC | 73126 | $ |
| DFS 5.1-B1A | 20' | 12-24 VDC | 73127 | |
| DFS 5.1-A1B | 50' | 100-240 VAC | 73132 | |
| DFS 5.1-A1C | 100' | 100-240 VAC | 73133 | |

#### Replacement Items & Accessories

| MFR # | DESCRIPTION | STOCK # | EACH |
|---|---|---|---|
| DXC | Extra Transducer Cable (Sold Per Ft) | 10117 | $ |
| JB2X | Junction Box (to Splice Extra Cable) | 41563 | |
| CC-SL30 | Replacement Coupling Compound, 3 oz | 15171 | |

Purchase worry-free with our 100% satisfaction guarantee.