

## New DP Flowmeter Family from ABB

Being able to offer more than one flow technology means you can apply the correct one in its application sweet spot, rather than trying to cover a wide variety of applications with one technology. ABB offers four based on differential pressure measurement—orifice plate, multiple-point averaging pitot tube, wedge and integral orifice. ABB is announcing new designs in a “Master series” family covering these four technologies.

Each family member is integrated with the primary element, manifold and transmitter in a single assembly, fully pressure tested and shipped with a factory acceptance test (FAT) certificate with visual and critical dimension inspection, material traceability record, and pressure test results.

The compact family is close-coupled, eliminating long lengths of impulse piping, reducing the risk of installation errors and blockages. These compact flowmeters save time and cost in design, procurement and installation by providing a complete measurement solution ready to be installed.

### OriMaster

The FPD500 orifice plate flowmeter has been extended in size range to cover pipe sizes with nominal bores from 0.5 ins. to 12 ins. (15 mm to 300 mm). ABB has added a new option for the 4-in. to 12-in. (100-mm to 300-mm) line size and above that allows the orifice plate itself to be removed and replaced from the meter on the site. This saves the cost of a complete meter replacement if the orifice plate becomes damaged, and changing the plate provides increased rangeability.

### PitoMaster

The FPD550 brings the Torbar averaging pitot tube flowmeter into the compact DP family. It is designed for “one-hole” installation, which makes it easier to use in retrofit situations in existing piping. The PitoMaster offers very low permanent pressure loss characteristics in pipes ranging from 4-in. to 24-in. (100-mm to 600-m) nominal diameter. Users can specify either flanged or threaded process connections.

### WedgeMaster

The FPD570 is an updated version of the venerable Wedge flowmeter in a compact design for pipes from 1 ins. to 6 ins. (25 mm to 150 mm). The Wedge design maintains its coefficient down to Reynolds Numbers as low as 500 and resists wear and damage in use. The WedgeMaster can be used for clean or highly viscous fluids and requires only five diameters upstream and three down.

### IOMaster

The integrated orifice design of the FPD510 is a solution



### NEW COMPACT DP FLOW METER FAMILY

ABB offers four compact flow meters based on differential pressure technology.

for low flow rates in small-bore pipelines. In each meter size (0.5 in, 1 in. and 1.5 in. or 15, 25 or 40 mm), the device offers replaceable small-bore orifice plates, ensuring a suitable differential pressure at the required flow rate. IOMaster is supplied with threaded or flanged connections on a body that includes the required upstream and downstream run.

### Transmitter Options

The DP Master series is supplied with a choice of two transmitters for either volume flow or compensated volume or mass flow rate. The compensated versions of the family are available with an optional integrated RTD for direct temperature measurement.

Wireless versions of these flowmeters are available, and configuration can be done through the glass (TTG) window on the transmitter. Plugged impulse line diagnostics are integrated within the flowmeter, which learns the normal noise pattern and detects changes caused by partial or total blockage in either or both lines. The meter itself provides local warning and remote alarms without the need for a PLC or other remote control system connection.

For more information, visit [www.abb.com/measurement](http://www.abb.com/measurement) or call 1-800-829-6001.