



Badger Meter Europa



# Hedland<sup>®</sup>

Variable area flow meters

# Variable area flow meters

Hedland® variable area flow meters are the industry benchmark. This product line has grown to over 15.000 flow meters constructed of aluminium, brass or stainless steel with variable measuring area for liquids, oil, water, compressed air and gases. Hedland® meters are recommended for use in machine cooling and lubrication, packaging, semiconductor production, high pressure and hose applications, automotive and aviation industry as well as in the mining industry.

## Measuring principle

The variable area flow measurement method allows fluids (liquids and gases) volume streams to be determined. A moving sharp-edged orifice is located within the piston assembly, forming an annular opening with the contoured metering cone. The piston assembly carries a cylindrical PPS/ceramic magnet that is magnetically coupled to an external indicating magnet, which moves precisely in direct response to movement of the piston therefore providing a visual display of the flow rate.



# Variable area flow measurement

## Low cost EZ-View® meter for oil, water and other liquids

- Rugged construction
- Horizontal or vertical installation
- Shock and vibration insensitive
- Instantaneous direct reading
- High pressure range



| Fluid              | Flow range     |
|--------------------|----------------|
| Water-based fluids | 2 – 100 l/min  |
| Water              | 2 – 380 l/min  |
| Oil                | 10 – 380 l/min |

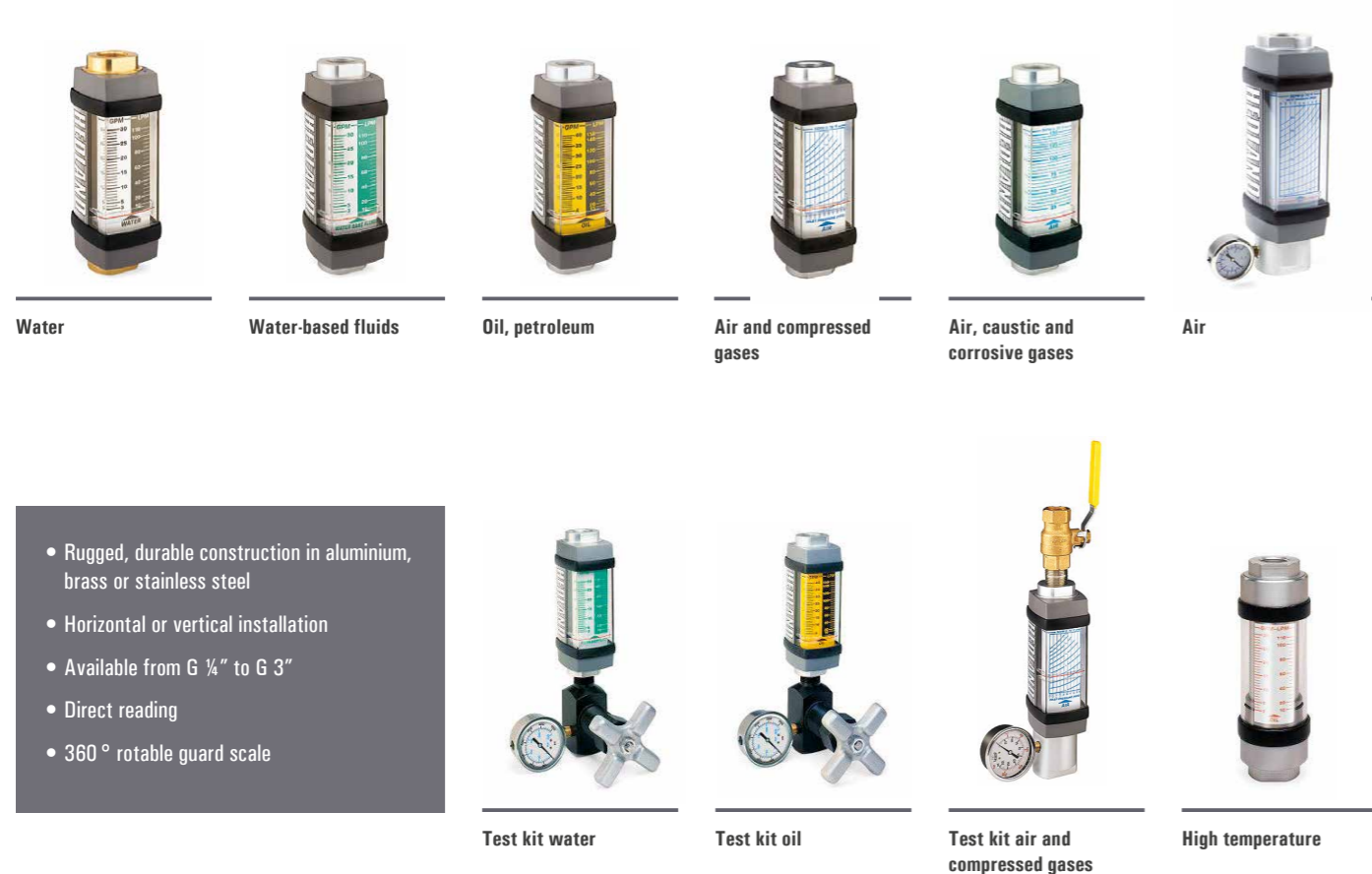
The EZ-View® variable area flow meters are rugged, low-cost direct reading meters. They are simple to install in any orientation, vertically, horizontally or even up side down, etc. without sacrificing measurement performance. Flow straighteners, located in the inlet and outlet, allow the flow meter to be less sensitive to turbulent flow conditions. Further straighteners or other special installation is not required. Constructed of high impact PPSU, the EZ-View® product line offers

excellent structural integrity and chemical compatibility with a wide range of industrial chemicals.

EZ-View® flow meters provide instantaneous, direct-reading flow rate measurement of liquids in closed piping systems. The transparent PPSU body allows visual inspection of the fluid condition in addition to allowing the internal flow rate indicator line to be easily seen.



### The H-series – Variable area in-line flow meters



- Rugged, durable construction in aluminium, brass or stainless steel
- Horizontal or vertical installation
- Available from G 1/4" to G 3"
- Direct reading
- 360 ° rotatable guard scale

The unique spring loaded design of this variable area flow meter for common fluids reduces viscosity sensitivity. The Hedland® variable area flow meters are the most readable products in their class to monitor a wide

range of liquids, petroleum-based fluids, phosphate ester liquids, water, water-based fluids or water/oil emulsions. A pneumatic series is also available for metering air and compressed gases.

All meters are available as basic flow meters, test kits or for high temperatures, corrosive liquids and gases.

| Type                                    | Basic model | Test kit | High temperature |
|---|-------------|----------|------------------|
| <b>Meter for liquid applications</b>    |             |          |                  |
| Version 240/410 bar (3500/6000 psi)     |             |          |                  |
| Petroleum-based                         | X           | X        | X                |
| Phosphate ester based                   | X           | X        | X                |
| Water-based, water/oil                  | X           | X        | X                |
| Water and other fluids                  | X           |          | X                |
| Oil, caustic and corrosive fluids       | X           |          |                  |
| <b>Meter for pneumatic applications</b> |             |          |                  |
| Version 70/100 bar (1000/1500 psi)      |             |          |                  |
| Version 41 bar (600 psi)                | X           | X        |                  |

### Flow transmitter Flow-Alert switch

The Flow-Alert switch flow meters are rugged, long-term variable area flow meters for measurement of flow volumes. This product provides a local flow indication and automatically signals the operator or PLC if flow is too high or too low. Special scales are available according to customers request. Flow-Alert flow meters are available in single switch, double switch, reed switch and micro switch versions. There is no need for flow straighteners or special piping requirements.

- Mounting in any position
- Automatically signal alarms



### Flow transmitter MR series

The Hedland® MR series can operate as part of a totally integrated electronic process control/data acquisition system with digital flow rate and total flow indication and non-contact sensor electronic integration. In-field compensation for specific gravity and viscosity for liquid versions, while also providing pressure and temperature compensation for pneumatic versions is an additional benefit.





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