

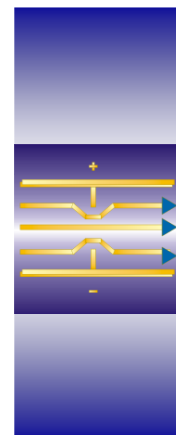


Internationally renowned, well-proven measurement system,  
more than 2,000 instruments installed in the industry

## ORIFLOW - the Modern Compact Orifice

Highest quality measurement at low costs

Sensors



Designed for the Process:

- modular design concept
- no moving parts
- extremely rugged and stable
- suited also for extreme applications
- dry calibration possible  
(with reference to DIN 1952 / ISO 5167)
- easy to install

### Principle of Measurement

The operation of the Oriflow Compact Orifice is based on the measurement of differential pressure, which is created across that section of a pipe where its cross section is reduced. This is then taken as a measure for the flow. For the differential pressure produced (differential pressure  $p$  at the point where the pressure is read) and the flow  $q$ , the following simplified equation applies.

$$q = k \times \sqrt{\Delta p}$$

### Technical Data

<b>Accuracy</b>	± 0,8 % v.M. with dry calibration ± 0,6 % v.M. with wet calibration
<b>Operating temperature</b>	-40 °C to 400 °C (depending on model)
<b>Ambient temperature</b>	-40 °C to +70 °C
<b>Process connection</b>	Sandwich Design: DN 15 to 1000
<b>Electr. connection</b>	Power supply 24 VDC 2 - wire - technique, 4-20 mA, HART
<b>Materials</b>	Sensor: 1.4571, 1.4408, Hastelloy Others upon request
<b>Type of protection</b>	EEx ia acc. ATEX 100a

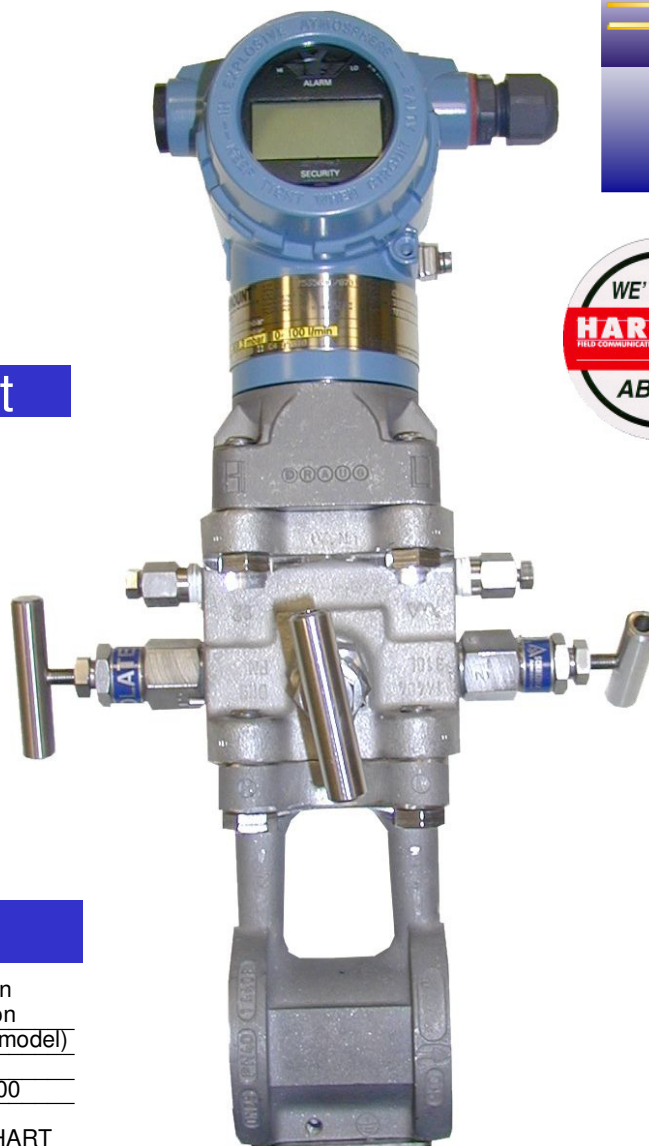
All transmitters compliant to DIN 61518 can be connected

### Measuring Ranges

According to DIN 1952 / ISO 5167

**Bopp & Reuther**  
Messtechnik GmbH  
Postfach 1709  
67327 Speyer / Germany  
Am Neuen Rheinhafen 4  
67346 Speyer / Germany  
Telefon : +49 (6232) 657-0  
Fax : +49 (6232) 657-505

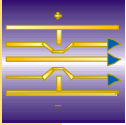
Internet: [www.burmt.de](http://www.burmt.de)  
eMail: [Info@burmt.de](mailto:Info@burmt.de)



### Characteristics

<b>Beta</b>	0,1 ... 0,75
<b>Standard range D [mm]</b>	50 ... 1000
<b>Standard range d [mm]</b>	>12,5
<b>Reynolds number <math>R_{eD}</math></b>	5000 ... $10^8$
<b>Remaining pressure loss in % of <math>\Delta p</math></b>	34 ... 95

Subject to changes without notice

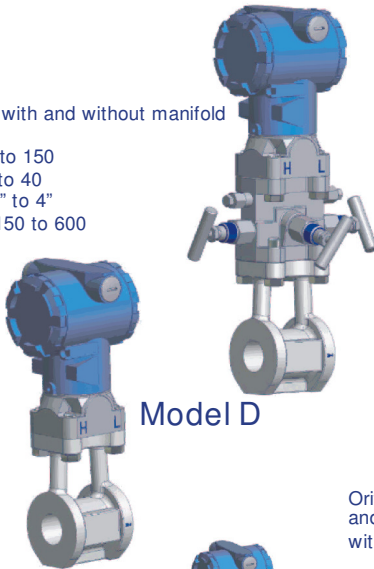


## Compact Orifice Oriflow<sup>®</sup>

The compact orifice works according the differential pressure measurement principle.  
Diameter ratio 0,1 bis 0,75  
Connection: 2-wire HART<sup>®</sup>Communication

Oriflow with and without manifold

DN 15 to 150  
PN 10 to 40  
NPS 1/2" to 4"  
Class 150 to 600



Model D

Oriflow with flanges and temperature extension for high temperatures up to 400 °C

DN 15 to 500  
PN 10 to 40

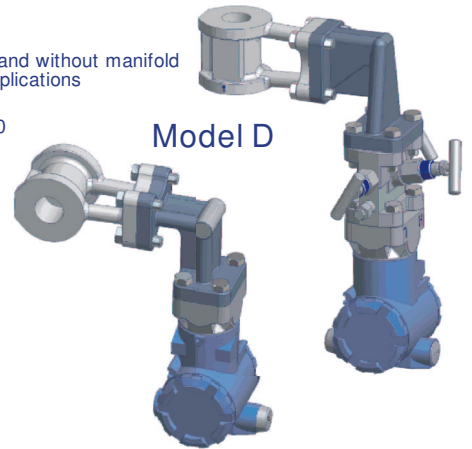
Model U



Oriflow with and without manifold for steam applications

DN 15 to 150  
PN 10 to 40

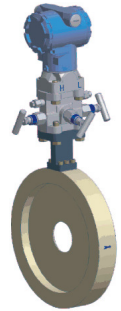
Model D



Oriflow for large nominal width

DN 200 to 1000  
NPS 5" to 24"  
Class 150 to 600  
length 40mm

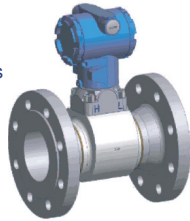
Model D



Oriflow with flanges

DN 15 to 500  
PN 10 to 40

Model T



Oriflow for small nominal width and flow rates with changeable orifice

Model G



Oriflow for large nominal width and redundant measurements

DN 200 to 1000  
length 40mm

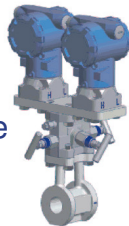
Model D Triple



Oriflow with 2 transmitters for redundant measurements, for forward and backward measurement, and for measurements of small and large amounts in the process

DN 15 to 200  
PN 10 to 160

Model D Double



Oriflow mit temperature measurement and pressure measurement

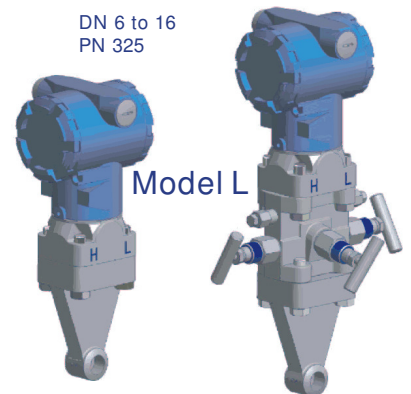
Transmitter 3095 MV with absolut pressure, differential pressure, gauge pressure and temperature input for mass flow measurement



Oriflow for high pressure applications

DN 6 to 16  
PN 325

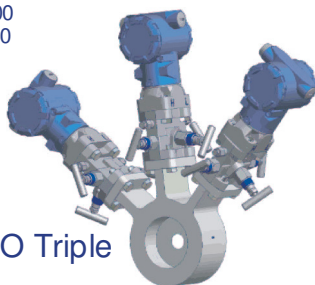
Model L



Oriflow mit 3 transmitters for redundant measurements in the process

DN 15 to 200  
PN 10 to 160

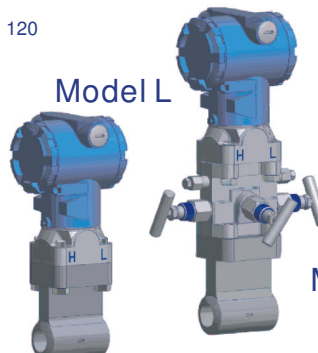
Model O Triple



Oriflow for high pressure applications

DN 24 to 120  
PN 325

Model L



Oriflow for high pressure applications with redundant measurements

DN 6 to 120  
PN 325

Model M Double

