

■ DESCRIPTION

Integral Orifice the One-Piece DP Flow Meter

Integral Orifice is an orifice-based flow meter with a difference

- Its advanced design greatly simplifies installation and commissioning

Integral Orifice is a stand-alone, orifice-based flow meter that incorporates all the following features:

- Integral 3-valve manifold
- Integral connections between the carrier tappings and manifold
- DP transmitter, factory-mounted onto the manifold and pre-configured for the application
- Fully leak-tested and configured

■ DISTINCTIVE

Integral Orifice is an orifice-based flow meter with a difference

- Combines primary element with DP Transmitter in a single flow meter assembly

One-piece flowmeter, pressure tested as an assembly

- Improved reliability with no leaks to trace and rectify
- Integral multivariable transmitter and RTD for INTEGRAL reading of mass (liquids and steam) and corrected volume (gas) flow rates in a single unit

Integral impulse connections

- No impulse piping installation required
- Provides repeatable DP connection across installation locations

Reduced cost of installation

- Only one piece to install
- Eliminates need to supply and connect separate manifold

Easy to specify

- Single ordering code covers complete flowmeter
- Only two orifice ratios simple specification process



INTEGRAL ORIFICE



■ Model : DHIO-FM



The integral orifice is a flow element capable of being close coupled with differential pressure transmitters to make a complete flow meter. It provides easy-to-install, low-cost measurement of the small flows found frequently in plant metering operations and research projects. It can be ordered with internal NPT threads or flanged pipe runs, welded both upstream and downstream of the flow restriction.

The orifice assembly may be directly mounted to the transmitter or remote using optional adapter kit 155S711.

■ Model : DHIO-BN



Integral Orifice Block Type—a compact flow meter, providing measurement integrally in mass units for liquids and steam. Gas flow is measured integrally in reduced volume units.

■ Model : DHIO-BY



■ SPECIFICATIONS

Fluids

- Liquids, gases and saturated steam

Materials

- Orifice assembly, stem and manifold : 316L
Orifice Body : 304 SS, 304L SS, 316 SS, 316L SS

Process Connections

- Wafer body to fit between the following flange drillings:
- ASME B16.5 (ANSI) Class 150, 300, 600, 900, 1500#

Line Sizes

- 15A, 25A, 40A, 50A, 80A, 100A, 150A, 200A
(1/2", 1 in., 1 1/2 in., 2 in., 3 in., 4 in., 6 in., 8 in.)

Temperature limited

- Process : -40 to 121 °C (-4 to 250 °F)
- Ambient : -40 to 70 °C (-4 to 158 °F)

INTEGRAL ORIFICE



MODEL	SUFFIX CODES	DESCRIPTION
DHIO-□□	FM -----	Flange & Meter Run Included
	BN -----	Block Type Meter Run Excluded
	BY -----	Block Type Meter Run Included
Nominal Pipe Size	□□□ -----	Pipe size in inch or mm
Material Plate or Block / Meter Run	CS -----	Carbon Steel
	4S -----	304SS
	4L -----	304L SS
	6S -----	316SS
	6L -----	316L SS
	OP -----	Option
Mounting Connection	015 -----	ASME(ANSI) Class 150 LB
	030 -----	ASME(ANSI) Class 300 LB
	060 -----	ASME(ANSI) Class 600 LB
	090 -----	ASME(ANSI) Class 900 LB
	150 -----	ASME(ANSI) Class 1500 LB
	000 -----	Option
Indicator	V -----	Volumetric
	M -----	Mass
OutPut	A -----	4~20mA
	V -----	1~5V
Option		/□□□