Automatic Systems

Flow measurement

Meter run Model FLC-MR

WIKA data sheet FL 10.02

Applications

- Power generation
- Oil production and refining
- Water treatment and distribution
- Gas processing and transmission
- Chemical and petrochemical industry



Special features

- Maximum operating temperature up to 800 °C
- Maximum operating pressure up to 400 bar
- Suitable for liquid, gas and steam flow measurement
- Accuracy ≤ ±1.0 % of actual flow rate
- Repeatability of measurement 0.1 %

Meter run, model FLC-MR

Description

Differential pressure flow meters are used in many industrial applications. If a high measuring accuracy is requested, the best solution for primary elements is a meter run.

A meter run is an assembly consisting of an orifice plate with flanges and calibrated upstream and downstream pipes. Since the meter run is manufactured as one unit, it is possible to optimally match all components with each other. Thus any faults that might lead to measuring inaccuracies can be avoided.

Standards use the term "meter run" only for small pipe diameters up to 1 ½". For larger pipe diameters starting from 2" the model FLC-MR-SP is the appropriate solution. Irrespective of the size, the type of installation and tapping point or the different transmitter connections, our portfolio offers the optimal solution for each application.



General specifications

Nominal size

Available in accordance with all relevant standards

Nominal pressure rating

Available in accordance with all relevant standards

Pipe schedule

The pipe schedule must be specified by the customer.

Materials

See specifications of each model.

Pressure tappings

See specifications of each model.

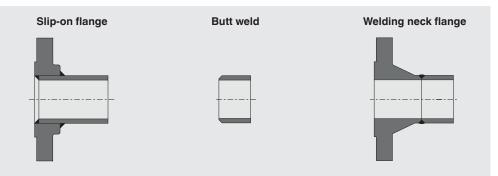
Sealing faces

- Raised face
- Ring joint (option)

Orifice plate

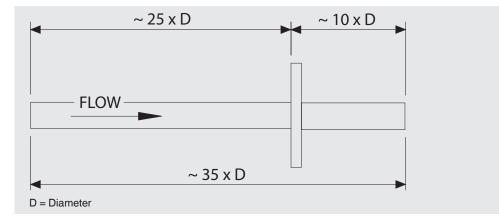
For detailed specifications see data sheet FL 10.01

Mounting options



Length rule

The illustration shows the standards relating to the length of upstream and downstream pipes.



Specifications, model FLC-MR-IO

Nominal size

1/4 ... 1 1/2" (DN 15 ... 40)

Pressure tappings

- Corner taps
- Two oval flanges for a direct connection of a differential pressure transmitter

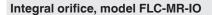
Materials

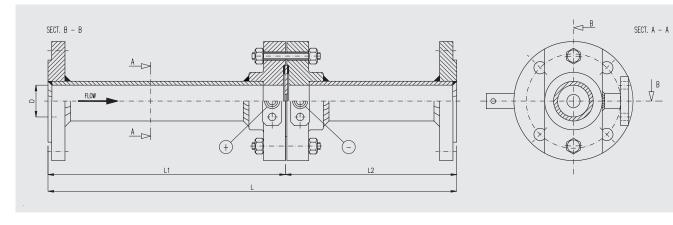
- Pipe flanges: Stainless steel 316/316L
- Orifice flanges: Stainless steel 316/316L
- Studs: Stainless steel ASTM A 193 Gr. B8
- Nuts: Stainless steel ASTM A 194 Gr. 8
- Plug: Stainless steel 316
- Sealing: PTFE/Graphite
- Orifice plate: Stainless steel 316/316L

Other solutions on request.

Dimensions







Nominal size		Dimensions	Dimensions in mm			
		L	L1	L2		
1⁄2"	(DN 15)	550	380	170	5	
3⁄4"	(DN 20)	700	500	200	8	
1"	(DN 25)	900	650	250	10	
1 1⁄2"	(DN 40)	1.300	1.000	300	22	

Dimensions reported in the table are independent from the "Mounting options" selected. The weight indicated is referred to the slip-on solution as also indicated in the drawing.

Specifications, model FLC-MR-STD

Nominal size

1⁄4 ... 1 1⁄2"

Pressure tappings

- Corner taps
- Two 1/2 NPT connections

Materials

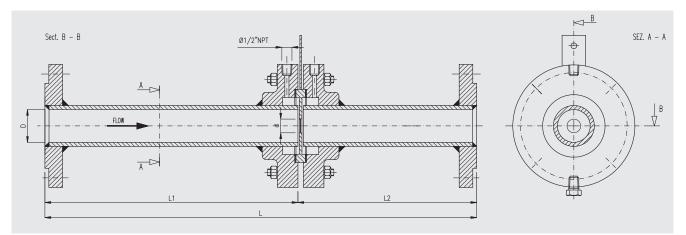
- Pipe flanges: Stainless steel 316/316L
- Orifice flanges: Stainless steel 316/316L
- Studs: Stainless steel ASTM A 193 Gr. B8
- Nuts: Stainless steel ASTM A 194 Gr. 8
- Plug: Stainless steel 316
- Sealing: PTFE/Graphite
- Orifice plate: Stainless steel 316/316L

Other solutions on request.

Dimensions



Standard meter run, model FLC-MR-STD



Nominal size		Dimension	Dimensions in mm			
		L	L1	L2		
1⁄2"	(DN 15)	550	380	170	6	
3⁄4"	(DN 20)	700	500	200	9	
1"	(DN 25)	900	650	250	11	
1 ½"	(DN 40)	1.300	1.000	300	23	

Dimensions reported in the table are independent from the "Mounting options" selected. The weight indicated is referred to the slip-on solution as also indicated in the drawing.

Specifications, model FLC-MR-SP

Nominal size

≥ 2" (≥ DN 50)

Pressure tappings

- Flange taps
- Two ½ NPT connections

Materials

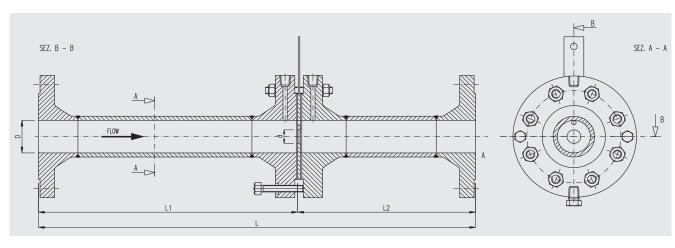
- Pipe flanges: Stainless steel ASTM A106
- Orifice flanges: Stainless steel ASTM A105
- Studs: Stainless steel ASTM A 194 Gr. B7
- Nuts: Stainless steel ASTM A 194 Gr. 2H
- Plug: Carbon steel
- Sealing: Stainless steel 316, graphite, carbon steel
- Orifice plate Stainless steel 316/316L

Other solutions on request.

Dimensions



Special meter run, model FLC-MR-SP



Nominal size		Dimensions	Dimensions in mm			
		L	L1	L2		
2"	(DN 50)	1.500	1.200	300	25	
2 1⁄2"	(DN 65)	1.600	1.250	350	38	
3"	(DN 80)	1.800	1.400	400	51	
4"	(DN 100)	2.200	1.700	500	82	

Die Abmessungen in der Tabelle sind unabhängig von der gewählten "Einbaumöglichkeiten".

Das angegebene Gewicht bezieht sich auf die Lösung zum Aufstecken, wie auch auf der Zeichnung angegeben.

Ordering information

Model / Nominal size / Nominal pressure rating / Pipe schedule / Material / Sealing face

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