

TECHNOLOGY

**HOLYKELL®**

# 4801

## FLOWMETER

• DATASHEET •

1. Pressure Measurement 2. Level Measurement 3. Temperature Measurement  
**4. Flow Measurement** 5. Display & Control Instruments

# 4801

## Insertion Electromagnetic flow meter

### Description

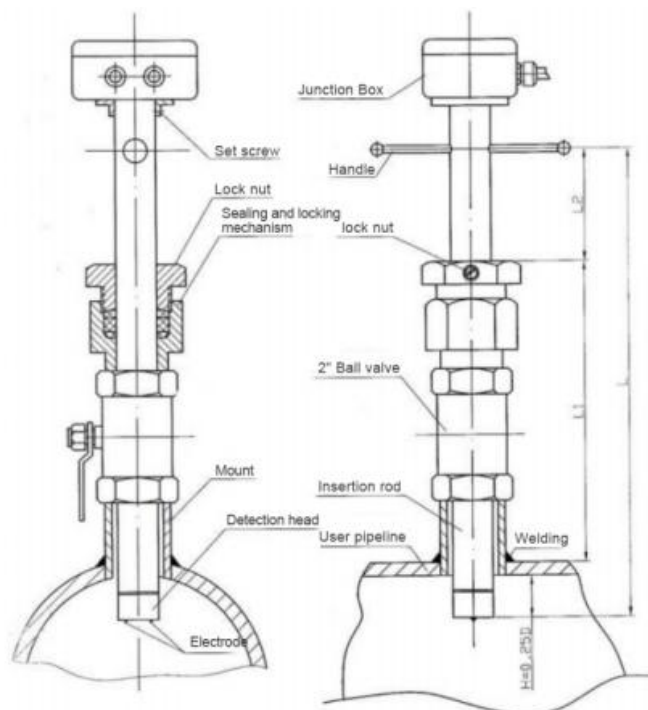


Figure 1 Sensor with ball valve overall structure diagram

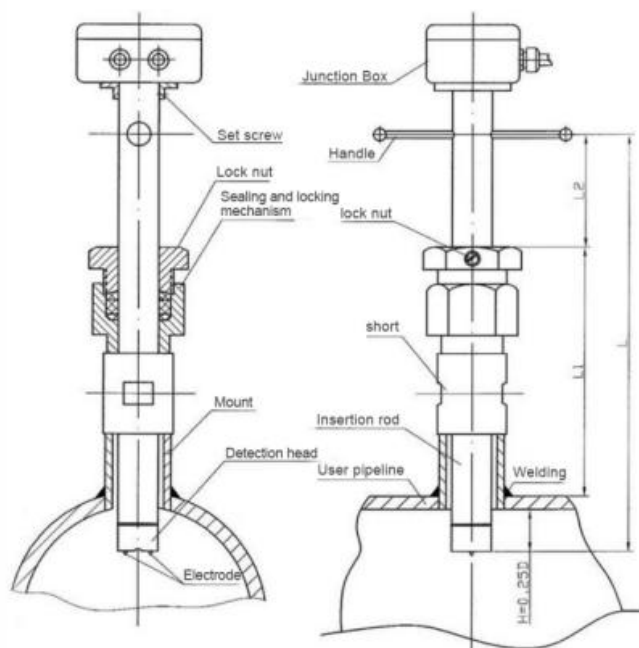


Figure 2 Sensor without ball valve overall structure diagram

Holykell Insertion electromagnetic flow meter is composed of insertion electromagnetic sensor and electromagnetic flow converter, used to measure the conductive liquid that electrical conductivity is greater than 5 us/cm , it is used to measure the water, sewage, acid, alkali and other medium. Suitable for measuring the large pipe of diameter DN300~DN3000mm,. Installation can be divided into a online installation type of the cut-off valve and water control installation type without stop valves. are applied to measuring volume flow of conducting liquid and slurry in pipeline, widely used to municipal water supply and drainage, industrial engineering, hydraulic engineering, and etc.

### Characteristic

1. Simple and firm structure, no moving parts inside, and long service life.
2. Strong anti-interference and reliable measurement.
3. The volume is small, the weight light, and it's convenient to install.
4. Wide measurement range, it can install or tear down without cutting water.
5. The cost of installation is less than general electromagnetic flow meters, especially for measuring flow of big diameter pipe.

### Main specification

#### Flow sensor

Accuracy	±1.5%
Pipe size	DN80—2000mm
Operating pressure	Less than 1.6 Mpa
Medium Temp	0 to 70°C
Flow range	0.01 m/s to 10 m/s
Power Consumption	Less than 20 W
Protection grade	IP68
Connection method	Flange or Thread
	304,304L,316,316L,Hastelloy alloy,titanium (Ti),etc.

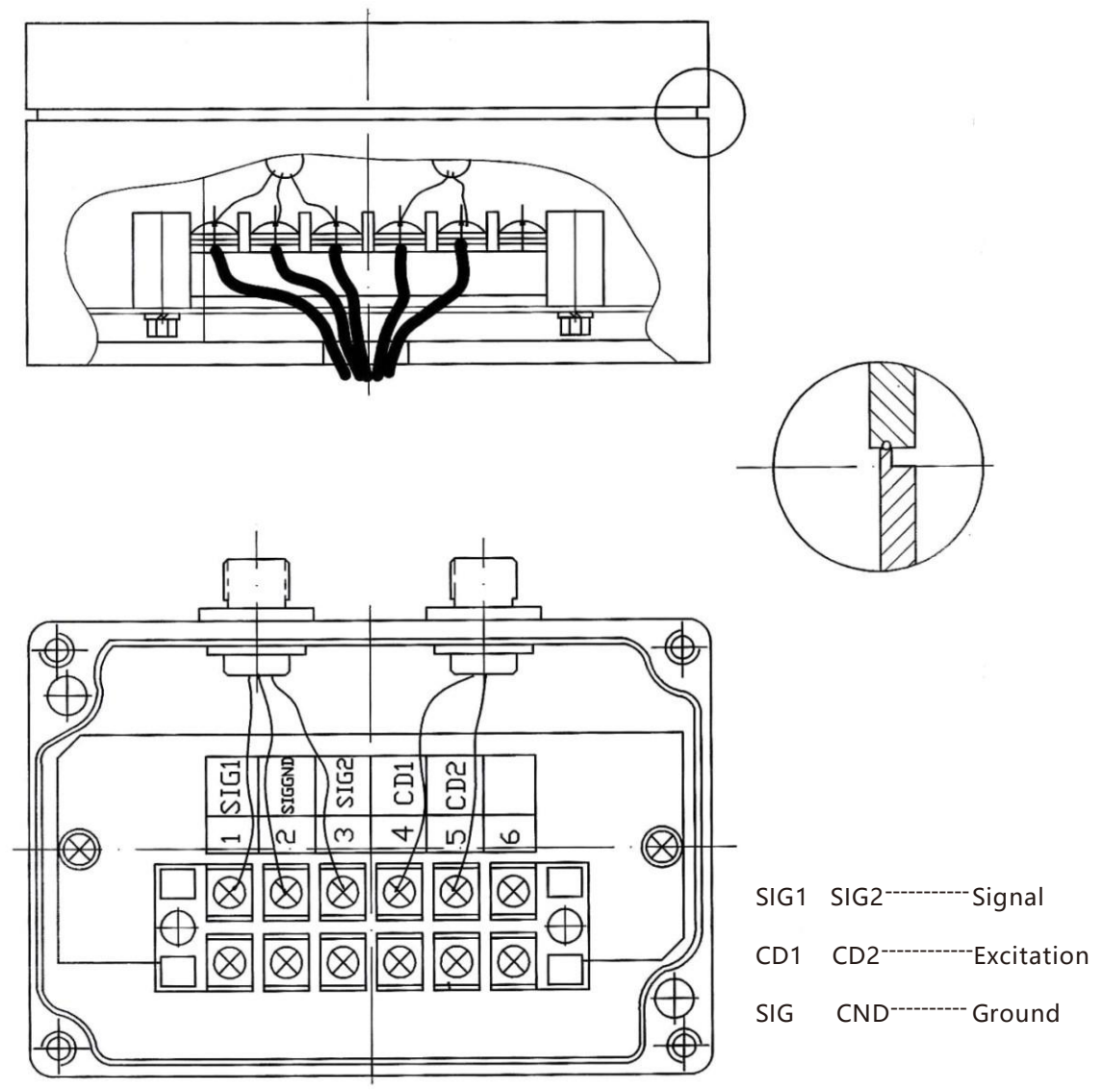
#### Flow transmitter

Signal output	4-20mA, pulse, frequency
Communication protocol	Modbus(RS485/RS232), Hart
Protection grade	IP65/IP67
Indicator style	LCD display with back light
Flow unit	m <sup>3</sup> /h,m <sup>3</sup> /m,m <sup>3</sup> /s,L/h,L/s,gal/h,gal/m,gal/s,bbl/h,bbl/m,bbl/s
Signal terminal type	Screwed
Entry cable	M20*15, 1/2NPT
Power supply	220VAC, 24VDC/12VDC, 3.6VDC

#### A comparison table of several common pipe inner diameters, average flow rates (m/s), and volume flow rates (m<sup>3</sup>/h).

DN(mm)	0.5(m/s)	1.0(m/s)	1.5 (m/s)	2.0(m/s)	2.5 (m/s)	3.0(m/s)
300	127.2	254.4	381.6	508.8	636.0	763.2
350	173.1	346.2	519.3	692.4	865.5	1038.6
400	226.1	452.2	678.3	904.4	1130.5	1356.6
450	286.2	572.3	858.3	1144.6	1430.8	2574.9
500	353.3	706.5	1059.8	1413.2	1766.5	2119.8
600	508.7	1017.0	1526.0	2034.0	2544.0	3052.0
700	682.4	1385.0	2047.0	2730.0	3412.0	4094.0
800	904.3	1808.0	2713.0	3617.0	4522.0	5126.0
900	1145.0	2290.0	3435.0	4580.0	5725.0	6870.0
1000	1413.0	2826.0	4239.0	5652.0	7065.0	8478.0
1200	2034.0	4068.0	6102.0	8136.0	10170.0	
1400	2770.0	5540.0	8310.0	11080.0	13850.0	

**Electronic Connections**



**Installation**

1. The installation position should be full of liquid.
2. The internal diameter or perimeter of pipeline should be measured easily, and ovality should be small.
3. The length of straight pipe on upstream should be more than 10D, and downstream should be more than 5D, D is the diameter of pipeline.
4. Vertical installation, the sensor should be vertical with axis, the included angle with cross section should be less than 5°.
5. There are two ways to insert the sensor: 1/4 of the pipe inner diameter or 1/2 of the pipe inner diameter.
6. Weld the installed base on pipeline correctly, and clean the welding slag of installed base. 7. Turn off the flow control valve or adopt low pressure of water supply.

### How to Order

<b>4801</b>		<b>500</b>	<b>F</b>	<b>S</b>	<b>1</b>	<b>0</b>	<b>H</b>	<b>J</b>
Selection Type								
Diameter	80 = DN80mm 100 = DN100mm 300 = DN300mm 350 = DN350mm 400 = DN400mm 450 = DN450mm 500 = DN500mm ..... 2000 = DN2000mm							
Structure	F=Remote type(standard with 10m cable) Y = Compact type							
Electrode	S = 316L T = Titanium(Ti) D = Tantalum(Ta) C = Hastelloy C(HC) P =Platinum iridium alloy							
Power Supply	1 = 110~240V AC 2 = 24V DC 3 = Lithium battery(without output signal)							
Output signal	0 = No output 1 = 4-20m/pulse output							
Communication	H = HART Protocol R = MODBUS RS485 G = GPRS							
Installation way	J = Without a ball valve    B = With a ball valve							