MARINE PRESSURE INSTRUMENT

MDM3051S-DP Intelligent Pressure Transmitter

ISO9001 Supplier

Class Certificate

Export Supply

Pressure range: 0 ~ 1kPa 0 ~ 2.5kPa 0 ~ 7kPa Accuracy: ≤1%FS Output signal: 4 ~ 20mADC （2-wire） Features: Lower pressure measurement. Compact size, easy installation. The gas or non-conductive liquid measurement. D...



Key Highlights

Category	Marine Pressure Instrument
Standard	ISO
Material	Stainless Steel 316L, Hast-alloy C The central sensing element of transm...
Weight / Size	Compact size, easy installation.
Certificate	ABS, LR, BV, DNVGL, NK, KR, IRS, RMRS, CCS

We can supply according to your requirement, drawings, class certificate needs, and delivery schedule.

Technical Specifications

Category	Marine Pressure Instrument	**Model / SKU**	MDM3051S-DP-Intelligent-Pressure-Transmitter
Standard	ISO	**Material**	Stainless Steel 316L, Hast-alloy C The central sensing element of transmitter uses the world’s leading high- Accuracy silicon sensor technology, Basic error is ±0.075%;
Weight / Size	Compact size, easy installation.	**Certificate**	ABS, LR, BV, DNVGL, NK, KR, IRS, RMRS, CCS
Warranty	12 Months unless specified otherwise	**Origin**	China

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China MDM3051S-DP Intelligent Pressure Transmitter:

Pressure range: 0 ~ 1kPa 0 ~ 2.5kPa 0 ~ 7kPa
Accuracy: ≤1%FS
Output signal: 4 ~ 20mADC (2-wire)

Features:

Lower pressure measurement.
Compact size, easy installation.
The gas or non-conductive liquid measurement.
Differential Pressure Transmitter (DP)
Measured media: gas, steam, liquid
Measured range(with no shift): 0Pa~100Pa…3MPa
Basic error: ±0.075%
Diaphragm contacting with liquid: Stainless Steel 316L, Hast-alloy C
The central sensing element of transmitter uses the world's leading high- Accuracy silicon sensor technology, Basic error is ±0.075%;
Working pressure of transmitter has three levels--16MPa, 25MPa and 40MPa, the highest one-way overpressure is 40MPa;
Excellent static pressure performance, optimal static pressure error ≤±0.1%/10MPa.
The inner of pressure sensor integrates high sensitive temperature sensor.
Excellent temperature performance, optimum≤± (0.20 ×TD+0.10)%×Span /-20℃~65℃.
All stainless steel 316L, silicone oil filling with welded sealing construction;
Low gauge /absolute pressure transmitter uses the world's leading die resistance to high overload protection. 6kPa: one-way overpressure and protection pressure is 300kPa; 40kPa: one-way overpressure and protection pressure is 1MPa. The max. Pressure is 50 times of full span pressure.
Stable and reliable, optimal long-term drift performance:±0.1%/year, 5-year maintenance-free;
Wide measured range: 100Pa~60MPa;
Max. 100:1 pressure range proportion adjustable;
EMC conforms to GB/T 18268.1-2008 standard;

Working Principle

1 Differential Pressure Transmitter (DP)
Chart 1 Differential Pressure Transmitter (DP)
Differential pressure transmitter includes two functional units:
Main unit
Auxiliary unit
Main unit includes sensor and process connection, working principle as followed:
The sensor module uses whole welded technology, in which has a compact overload diaphragm, a differential pressure sensor and a temperature sensor. The temperature is taken as a reference for temperature compensation. The positive end of the differential pressure sensor is connected with high pressure chamber of sensor capsule; the negative end is connected with low pressure chamber of sensor capsule. Through the isolated diaphragm and filling liquid, the differential pressure is transmitted to silicon die in the inner of differential pressure sensor, which makes the resistor of sensor die change. So the detection system outputs different voltage. The output voltage is in proportion to the pressure variation, and then it is transmitted to standard output by adapter and amplifier.
MDM3051S-DP Differential Pressure Transmitter is used for level, density, pressure and flow measurement of liquid,

gas and steam. Then it will outputs 4mA~20mA DC HART signal and also it could be connected to RST375 hand communicator or RSM100 Modem to do the specification setting and process control.