

HPM418DZ Level Transmitter



Overview

HPM418DZ liquid level transmitter is a fully sealed submersible structure, using a corrosion-resistant, wear-resistant and high-precision ceramic capacitor pressure sensor. The probe put into the measured medium is made of all titanium, and the gas-conducting cable is made of polyurethane cable. It is mainly used for seawater, sewage and other media and all high-demand liquid level measurements.

The product has multiple designs of reliable sealing in the connection of the shell, wires and other links, and the internal full potting process is used to ensure that the product has a good service life. It is widely used in many occasions such as ships, chemicals, water treatment, environmental protection, medicine, industrial process control, etc.

Application

- ◆ Ballast tanks
- ◆ Urban sewage and industrial wastewater
- ◆ Viscous media
- ◆ Chemical industry
- ◆ Water treatment industry

Features

- ◆ High-purity ceramic capacitor sensor
- ◆ Quasi-flush membrane structure, anti-clogging
- ◆ Shell is made of GR II (or TA2) all-titanium material
- ◆ Anti-corrosion, wear-resistant
- ◆ Fully potting process, anti-condensation
- ◆ Multiple protection and sealing structure design

Technical Parameters

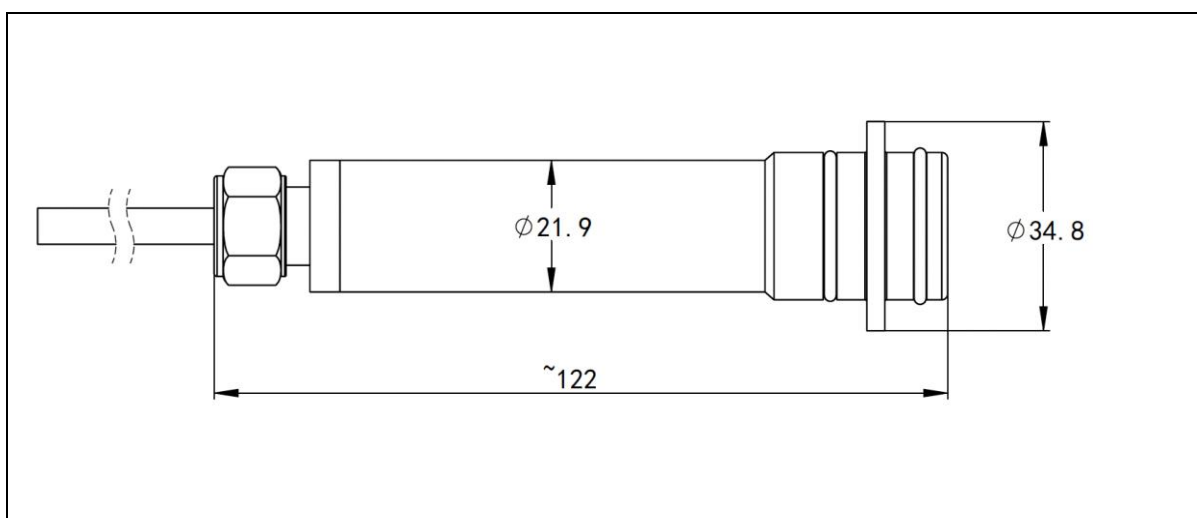
Measuring Medium	Various liquids or gases compatible with contact materials
Measuring Range	0.7~2bar...5bar (Absolute pressure) 0~1...200mH ₂ O (Gauge pressure)
Overload	2~40 times of full range scale
Output Signal/Power Supply	2-wire 4~20mA / Vs=10~30V
Accuracy	±0.25% FS (typical)
Long term stability	±0.2%FS/year
*Accuracy conforms to IEC 60770 (non-linear error, hysteresis, repeatability)	

Compensation temperature range	-20~80°C
Temperature Coefficient of Zero	±1.0%FS within temperature compensation range
Temperature Coefficient of Full Scale	±1.0%FS within temperature compensation range
Working Temperature	-20~80°C
Measuring medium temperature	-20~80°C
Storage Temperature	-20~80°C
Protection level	IP68
Short circuit protection	Permanent
Reverse polarity protection	No damage, circuit does not work
Electromagnetic Compatibility	Compliant with EN 61326
Insulation resistance	>100MΩ, 500VDC
Dielectric strength	Apply 500VAC 50Hz test voltage for 1 minute without breakdown or arcing

Structure Material

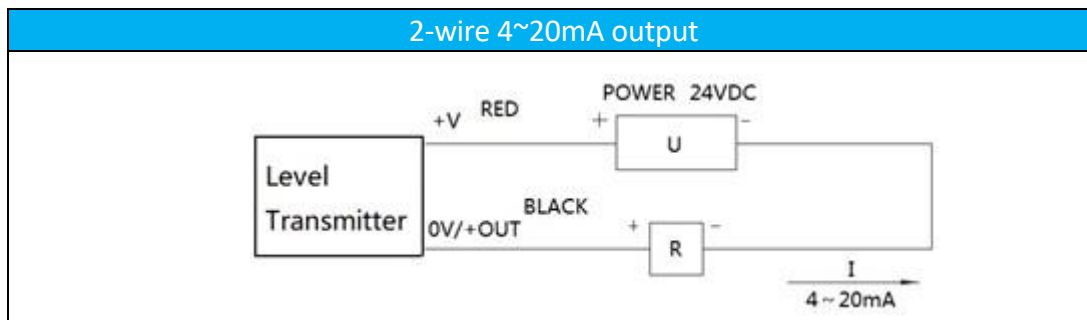
Code	Part	Note
Ti	Probe shell	titanium GR II(or TA2)
M6	Pressure sensor	Ceramic Al ₂ O ₃
FK	O-ring	Fluorine rubber FKM (applicable temperature: -20~200°C)
CR		Neoprene CR (more corrosion resistant, applicable temperature range -25~300°C)
C2U	Cable	PU polyurethane cable, external diameter (6.0±0.2) mm

Structure Drawings (Unit: mm)



Electrical connections

Wire color	2-wire 4 ~ 20mA
Red	Power supply+ (+V)
Black	Power supply- (0V/+OUT)



Ordering Guide

Item NO.	Type							
HPM418DZ	Level Transmitter							
eg:HPM418DZ	(0 ~ 5)mH ₂ O (L7)	Measuring Range						
		(0 ~ X)mH ₂ O (Ln)	X is measuring range Ln is the length of cable					
		Code	Output Signal					
		B1	(4 ~ 20)mA					
		Code	Cable Material					
		C2U	PUR					
		Code	Mounting method					
		N	NA					
		W1	Threaded					
		W8	Clip					
		Code	Pressure sensor					
		M6	Ceramic capacitors					
		Code	Probe shell material					
		T1	Ti GR II					
		Code	O-ring Material					
		FK	FKM					
		CR	CR					
		Code	Others					
		QF	Factory report					
			Other custom requirements					
eg:HPM418DZ	(0 ~ 5)mH ₂ O (L7)	B1	C2U	N	M6	T1	CR	

Certification Information

Factory certification	
Certification organization	CQM
Quality management system	ISO 9001:2015
Certification scope	Research, development and manufacture of pressure transmitter and temperature transmitter
Certificate No.	00223Q21711R1S