RKL-09 Pressure Transmitter



Overview

The RKL-09 pressure transmitter series employs a 316L stainless steel isolation diaphragm pressure sensing core as its primary signal measurement element. Following computer-automated testing, both zero-point and sensitivity temperature compensation across an extended temperature range are implemented through laser-trimmed resistance adjustment technology. The product features strong antiinterference, overload and shock resistance, small temperature drift, good stability and high precision, and is widely used in industrial automation process control, hydraulic and pneumatic equipment, servo valves and transmissions, air compressors, refrigeration, water treatment Industry and medical instruments and many other fields.

Features

- Stainless steel construction with good media compatibility
- Wide range temperature compensation
- Strong anti-interference ability
- Fast response time
- A variety of signals are optional

Applications

- Automated inspection system
- Water treatment system
- Hydraulic and pneumatic control systems
- Industrial machinery manufacturing
- Industrial process monitoring and control

Technical Parameter

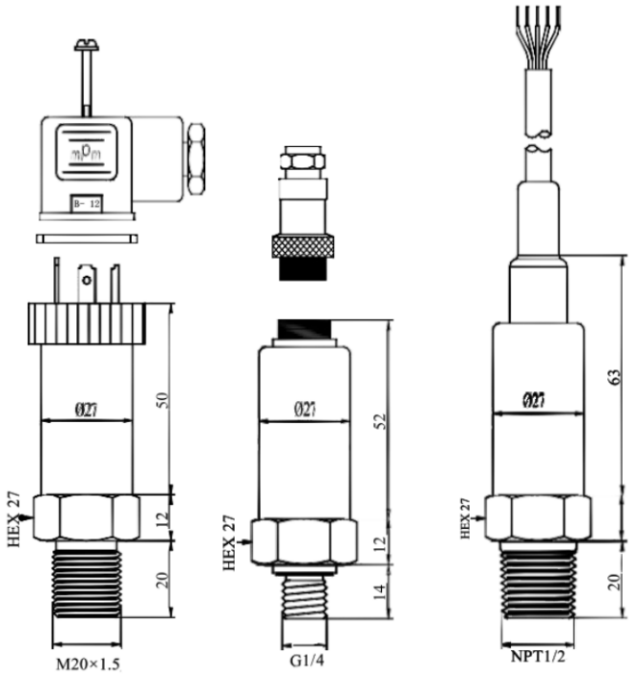
Item	Technical Specification
Pressure medium	The liquid or gas compatible with 316 stainless steel
Pressure ranges	0~0.2…100MPa(0-2…1000Bar)
Overload pressure	<300%FS
Output signal	4~20mA (default delivery), 0~10V, 0~5V, 1~10V, 1~5V, 0.5~4.5V (customizable) , RS485 (standard Modbus-RTU protocol)
Accuracy	0.5%FS(typ.),0.25%FS,1%FS
Supply voltage	10~30VDC(Others need to be customized)
Load resistance	RL = (U-10)/0.02(Ω) (4~20mA current output) >50kΩ(voltage output)
Long term stability	<0.25%FS/year
Insulation resistance	>100MΩ@ 50VDC
Operating temperature range	-40~+120
Environment humidity	0%~95%RH (no condensation)
Temperature compensation	-10~70
Temperature coefficient of zero	0.3%FS/10
Temperature coefficient of span	0.3%FS/10
Process connection	G1/4 M20*1.5 G1/2 or others
Electrical connection	Direct lead, DIN 43650 or others

Technical Parameter

Item	Technical Specification
Material of pressure membrane	316L
Material of housing	1Cr18Ni9Ti
Material of wetted part	1Cr18Ni9Ti
IP grade	IP65

Dimension

Unit:mm



Parameter Selection Table

Remark	Series	Supply	Output	Accuracy	Range	Process Connection	Electrical Connection	Cable Length	
RKL									
	09								
		A							10-30V
		X							Other
			A						4-20mA
			B						0-5V
			C						0-10V(Supply>12VDC)
			D						0-5V
			E						1-10V(Supply>12VDC)
			F						1-5V
			G						0.5-4.5V

Parameter Selection Table

Remark	Series	Supply	Output	Accuracy	Range	Process Connection	Electrical Connection	Cable Length	
			H						RS485(MODBUS-RTU)
			X						X
				P1					0.5%
				P2					0.25%
				P3					1%
					R(...)				0-0.2…100MPa optional
						A			G1/4
						B			G1/2
									M20*1.5
									Other
							A		Direct lead
							B		DIN 43650
							X		Other
								0	0m(Only DIN 43650)
								5	5m
								...	...

Example: RKL-09AAP1R3MPaAA5000 Supply:10-30V, Output:4-20mA, Accuracy:0.5%FS, Range:0-3MPa, Process connection:G1/4, Electrical connection: Direct lead, Cable Length:5m.

Revision time	Reviser	Current Version	Remarks
20250719	Echo	V5. 0	