



Fluid Detection Technology

www.motiontronix.in

Motiontronix

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Pressure Detection

Pressure transmitter

Pressure is one of the most frequently measured parameters in the industrial field. Whether it's monitoring system pressure in hydraulic systems, pipeline pressure in cooling circuits, or pressure parameters inside storage tanks, constant monitoring and measurement are essential. Motiontronix's pressure transmitters can provide process interfaces of various sizes, multiple output signals, and a wide pressure measurement range. The rich function settings and flexible installation methods can meet various needs of actual production and provide the greatest flexibility for your design



IO-Link Pressure sensor

Motiontronix's new SEH series pressure sensors not only provide the excellent performance but also equipped with IO-Link functionality. With IO-Link technology, the sensor can directly convert the millivolt sign of pressure into a digital signal, achieving high-precision data transmission and robust anti-interference capability. The new generation of products come standard with an IP65 protection class making them an ideal choice for intelligent control in industrial automation.



Pressure Sensors

Pressure sensor with display



- Compact size, easy to install in tight spaces
- Stainless steel housing, completely sealed, protection class IP65
- Upper part of the housing can be rotated 300° to ensure the best installation direction
- High-brightness dual-color large-size digital display, support mirroring
- Integrated programming operation panel, simple setting
- Pressure range-1...600bar
- Support IO-Link protocol, parameters can be set via IO-Link
- Flexible application through configurable output states: digital, analog, IO-Link
- Key lock function, simple key menu operation
- The starting and ending points of the analog signal can be set

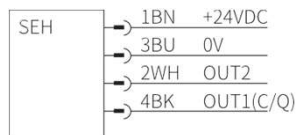


Models	Output signal		
Pressure range	4...20mA + switch, IO-Link	0 -10V + switch, IO-Link	2-way switch, IO-Link
-1...0bar	SEH-AA-I/4GA-LI6D-SC	SEH-AA-I/4GA-LU6D-SC	SEH-AA-I/4GA-DPN6D-SC
-1...1 bar	SEH-AB-I/4GA-LI6D-SC	SEH-AB-I/4GA-LU6D-SC	SEH-AB-I/4GA-DPN6D-SC
-1...4 bar	SEH-AC-I/4GA-LI6D-SC	SEH-AC-I/4GA-LU6D-SC	SEH-AC-I/4GA-DPN6D-SC
-1...6bar	SEH-AD-I/4GA-LI6D-SC	SEH-AD-I/4GA-LU6D-SC	SEH-AD-I/4GA-DPN6D-SC
-1...10 bar	SEH-AE-I/4GA-LI6D-SC	SEH-AE-I/4GA-LU6D-SC	SEH-AE-I/4GA-DPN6D-SC
0 2.5 bar	SEH-BF-I/4GA-LI6D-SC	SEH-BF-I/4GA-LU6D-SC	SEH-BF-I/4GA-DPN6D-SC
0...10 bar	SEH-B7-I/4GA-LI6D-SC	SEH-B7-I/4GA-LU6D-SC	SEH-B7-I/4GA-DPN6D-SC
0...16 bar	SEH-BS-I/4GA-LI6D-SC	SEH-BS-I/4GA-LU6D-SC	SEH-BS-I/4GA-DPN6D-SC
0...25 bar	SEH-BM-I/4GA-LI6D-SC	SEH-BM-I/4GA-LU6D-SC	SEH-BM-I/4GA-DPN6D-SC
0...40 bar	SEH-BC-I/4GA-LI6D-SC	SEH-BC-I/4GA-LU6D-SC	SEH-BC-I/4GA-DPN6D-SC
0...100 bar	SEH-C2-I/4GA-LI6D-SC	SEH-C2-I/4GA-LU6D-SC	SEH-C2-I/4GA-DPN6D-SC
0...160 bar	SEH-C3-I/4GA-LI6D-SC	SEH-C3-I/4GA-LU6D-SC	SEH-C3-I/4GA-DPN6D-SC
0...250 bar	SEH-C4-I/4GA-LI6D-SC	SEH-C4-I/4GA-LU6D-SC	SEH-C4-I/4GA-DPN6D-SC
0...400 bar	SEH-C5-I/4GA-LI6D-SC	SEH-C5-I/4GA-LU6D-SC	SEH-C5-I/4GA-DPN6D-SC
0...600 bar	SEH-C6-I/4GA-LI6D-SC	SEH-C6-I/4GA-LU6D-SC	SEH-C6-I/4GA-DPN6D-SC

Technical Parameters

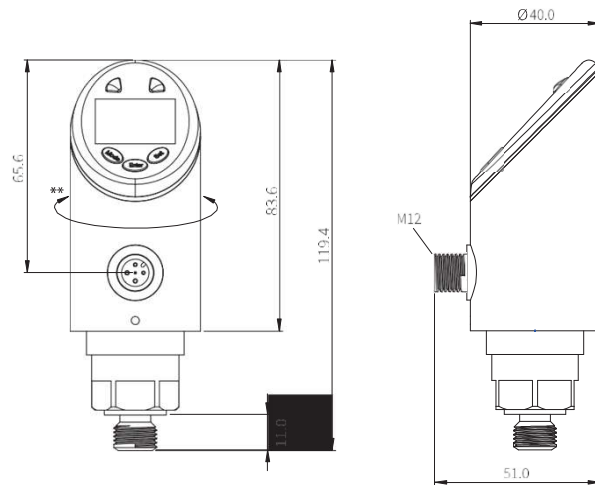
Electrical data	
Operating voltage	24VDC ±10%
Operating current	<100mA
Electrical interface	4-pin M12 connector, gold-plated, A code
Pressure parameters	
Measuring medium	Liquids, gases (non-toxic, harmful, flammable and explosive gases)
Pressure type	Relative pressure
Medium temperature	-30...105°C
Measurement accuracy	0.5%
Max overvoltage	2 times the maximum measurement value
Output parameters	
OUT1 Signal	Switching signal or IO-Link (automatic wake-up)
OUT2 Signal	Switching signal or Analog
Switching signal output type	PNP/NPN/Push-Pull, NO/NC, Hysteresis/Window programmable
Switching signal output current	250mA
Switch point SP setting range(bar)	Positive pressure: 0.5% F.S...F.S * Negative pressure: (-1+0.5%F.S) ...FMR **
Release signal rP setting range(bar)	Positive pressure: 0... (SP-0.50/oF.S) Negative pressure: -1... (SP-0.50/oF.S)
SP, rP minimum interval	0.5% F.S
Switching signal output resolution	0.1bar, 0.01bar, 0.001bar (Model differentiation)
Analog signal output maximum load	500 Ω
Analog signal output accuracy	0.5 % F.S
Minimum interval between analog signal start and end points	20 % F.S
IO-Link Information	
Vendor ID	1317 (0x0525)
Device ID	198673 (0x030811)
Number of interfaces	1
IO-Link protocol version	V1.1
IO-Link input bytes	2 bytes (16Bit)
Frame type	TYPE 2 2
Transmission rate	COM2 38.4kbit/s
Minimum cycle time	2400us
ISDU(Indexing Service)	Support
Block parameter operations	Not support
Data storage (DS)	Not support
Mechanical parameters	
Material	304 stainless steel
Process interface	G1/4 external thread
Ambient temperature	-40...80°C
Storage temperature	-40...100°C
Protection class	IP65

Wiring diagram



Pin	LI Output definition	LU Output definition	DPN Output definition
1	+24VDC	+24VDC	+24VDC
2	(OUT2) Switch or 4...20mA	(OUT2) Switch or 0...10V	(OUT2) Switch
3	0V	0V	0V
4	(OUT1) Switch or IO-Link	(OUT1) Switch or IO-Link	(OUT1) Switch or IO-Link

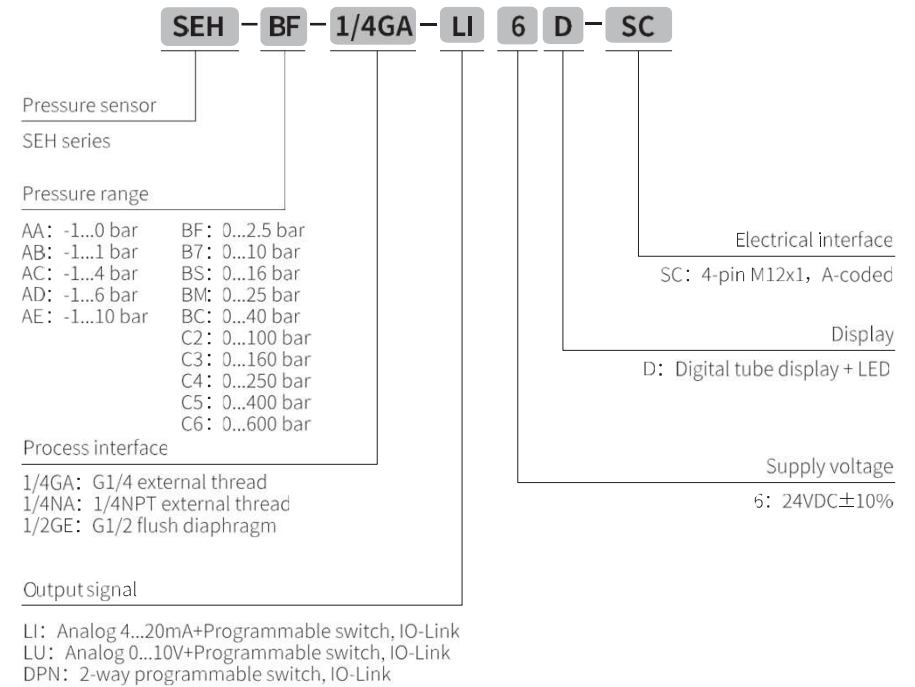
Dimensions



** The upper part of the housing can be rotated approximately 300°

Unit: mm

Selection Guide



S300 Pressure transmitter

Pressure transmitter without display

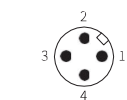


- Compact size, easy to install in tight spaces
- Digital circuit compensation
- Strong anti-interference ability and high stability
- For measuring liquids and gases in industrial applications
- Can measure gauge pressure and absolute pressure
- The liquid contact diaphragm is made of 316L stainless steel
- The housing is made of 304 stainless steel



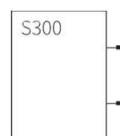
Models	Output signal	
Pressure range	4...20mA Analog	0...10V Analog
-1...0 bar	S300G-VR01-05-J	S300X-VR01-05-J
-1...1 bar	S300G-VR02-05-J	S300X-VR02-05-J
-1...4 bar	S300G-VR03-05-J	S300X-VR03-05-J
-1...6 bar	S300G-VR04-05-J	S300X-VR04-05-J
-1...10bar	S300G-VR05-05-J	S300X-VR05-05-J
0...2.5 bar	S300G-R003-05-J	S300X-R003-05-J
0...10 bar	S300G-R010-05-J	S300X-R010-05-J
0...16 bar	S300G-R016-05-J	S300X-R016-05-J
0...25 bar	S300G-R025-05-J	S300X-R025-05-J
0...40 bar	S300G-R040-05-J	S300X-R040-05-J
0...100 bar	S300G-R100-05-J	S300X-R100-05-J
0...160 bar	S300G-R160-05-J	S300X-R160-05-J
0...250 bar	S300G-R250-05-J	S300X-R250-05-J
0...400 bar	S300G-R400-05-J	S300X-R400-05-J
0...600 bar	S300G-R600-05-J	S300X-R600-05-J

Wiring diagram



M12 interface

- 1: BN brown
2: WH white
3: BU blue
4: BK black



2-wire current



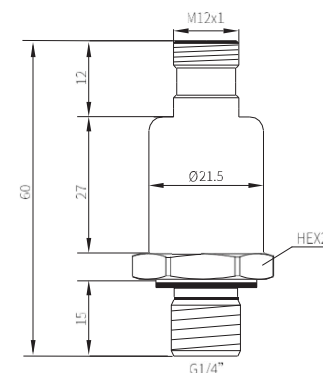
3-wire voltage

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Technical Parameters

Electrical data	
Operating voltage	24VDC ±10%
Electrical interface	4-pin M12 connector, gold-plated, A code
Pressure parameters	
Measuring medium	Liquids, gases (non-toxic, harmful, flammable and explosive gases)
Pressure type	Relative pressure
Medium temperature	-30...105°C
Measurement accuracy	±0.50/oF.S (typical value); ±1 %F.S*(maximum value)
Performance parameters	
Hysteresis and Repeatability	±0.10/oF.S
Temperature drift	±1.50/oF.s (-20°C...+55°C)
Response time	< 10ms
Service life	10 Pressure cycle
Overload pressure	150%~3000/oF.S
Burst pressure	200%~6000/oF.S
EMC-Interference	IEC061000-6-3
EMC-Immunity	IEC061000-6-2
Insulation resistance	100MO/500VDC(200MO/250VDC)
Vibration resistance	Sinusoidal curve: 20g, 25Hz~2KHz
	Random: 7.5grms, 5Hz~1KHz
Impact resistance	Shock: 100g/11ms
	Free fall: 1m
Mechanical parameters	
Material	304 stainless steel
Process interface	G1/4 external thread
Ambient temperature	-20...50°C
Storage temperature	-40...120°C
Protection class	IP65

Dimensions



Unit: mm

Temperature detection

IO-Link Temperature sensor

In modern industrial automation, temperature control and monitoring are key elements to ensure process safety, enhance production efficiency and optimize product quality. Motiontronix is committed to technological innovation and high-quality service and proudly introduce temperature sensors based on resistance temperature detectors (RTDs) integrated with IO-Link functionality. The product housing is made of 304 or 316L stainless steel, offering durability and a protection rating of IP65, making it suitable for harsh industrial environments. With its high precision, reliability, and intelligent features, this sensor has become a preferred solution for numerous industrial applications.



Temperature transmitter

The compact temperature transmitter features a small size and a streamlined design, with customizable probe lengths. It has a temperature measurement range of -40 to 150°C, analog output, and options for cable or connector output.



TBH Temperature sensor

Temperature sensor with display



- IO-Link function
- 4-digit large digital tube display
- Mirroring, semi-transparent design
- Upper part of the housing can be rotated 300° (G1/2 only)
- NO/NC, PNP/NPN/push-pull, hysteresis/window configurable
- Switching signal/analog signal configurable
- Switching signal/IO-Link configurable
- Sensor parameters can be set via buttons and IO-Link
- The start and end point of the analog signal can be set
- Standard 4-pin A-code MI2 interface
- Simple key operation, with key lock function
- The display panel adopts an integrated molded housing
- The housing body is made of stainless steel



Models	Output signal		
Process interface	4...20mA+switch, IO-Link	0...10V+switch, IO-Link	2-way switch, IO-Link
M18*1.5 Internal thread	TBH-18M N-LI6D-SC	TBH-18MN-LU6D-SC	TBH-18MN-DPN6D-SC
	TBH-18M E-LI6D-SC	TBH-18ME-LU6D-SC	TBH-18M E-DPN6D-SC
G1/2 External thread	TBH-G1/2N-LI6D-SC	TBH-G1/2N-LU6D-SC	TBH-G1/2N-DPN6D-SC
	TBH-G1/2E-LI6D-SC	TBH-G1/2E-LU6D-SC	TBH-G1/2E-DPN6D-SC
Processor unit	TBH-12M-LI6D-SC	TBH-12M-LU6D-SC	TBH-12M-DPN6D-SC

Technical Parameters

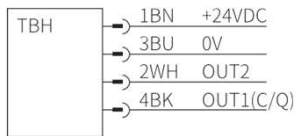
Electrical data	
Operating voltage	24VDC ±10%
Operating current	<100mA
Electrical interface	4-pin MI2 connector, gold-plated, A-coded
Temperature parameters	
Measuring medium	Liquid
Measuring element	PT1000
Measuring range	All-in-one: -50°C...150°C (-8°F...302°F); Split type: -50°C...500°C (-58°F...932°F)
Measurement accuracy	0.5°C
Process interface	M18x1.5 Internal thread, G1/2 External thread
Output parameters	
OUT1 Signal	Switching signal or IO-Link (automatic wake-up)
OUT2 Signal	Switching signal or 4-20mA
Switching signal output type	PNP/NPN/Push-Pull, NO/NC, Hysteresis/Window programmable
Switching signal output current	250mA
Switch point SP setting range	All-in-one: -49.8°C...150°C; Split type: -49.8°C...500°C
Release point rP setting range	All-in-one: -50°C...149.8°C; Split type: -49.8°C...499.8°C
Switching signal output resolution	0.1°C
Analog signal output maximum load	500 Ohm
Analog signal output accuracy	0.5% F.S
Minimum interval between analog signal start and end points	10°C
IO-Link Information	
Vendor ID	1317 (0x0525)
Device ID	198417 (0x030711)
Number of interfaces	1
IO-Link protocol version	V1.1
IO-Link input bytes	2 bytes (16Bit)
Frame type	TYPE_2_2
Transmission rate	COM2 38.4kbit/s
Minimum cycle time	2400us
ISDU(Indexing Service)	Support
Block parameter operations	Not support
Data storage (DS)	Not support
Mechanical parameters	
Material	Electronic compartment: 304 stainless steel; Probe: 304/316L stainless steel
Ambient temperature	-40...80°C
Storage temperature	-40...100°C
Protection class	IP65

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Wiring diagram

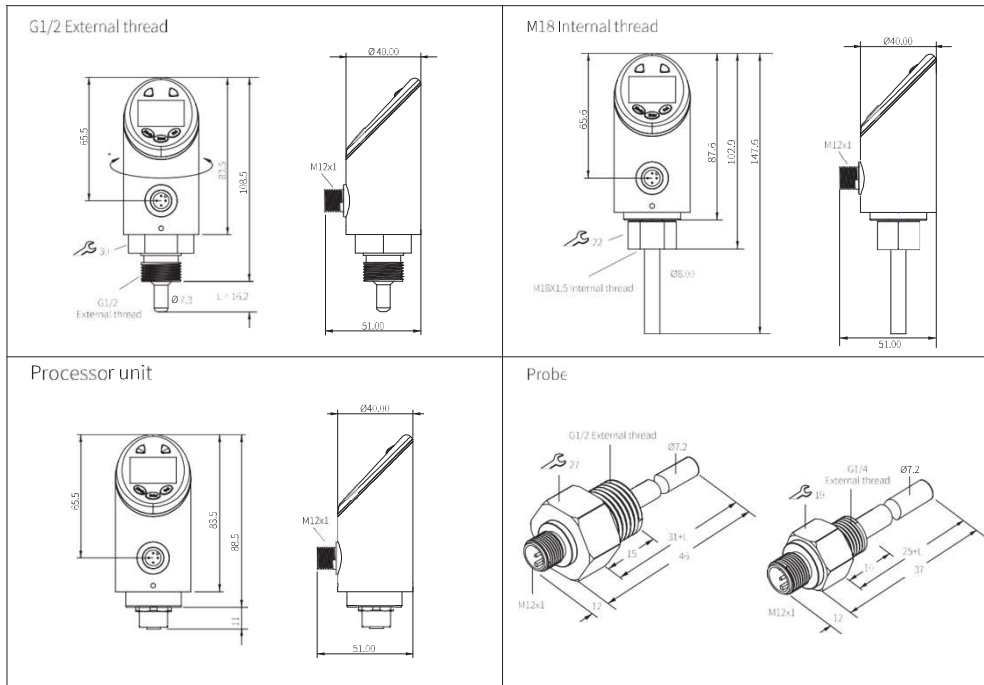


M12 interface



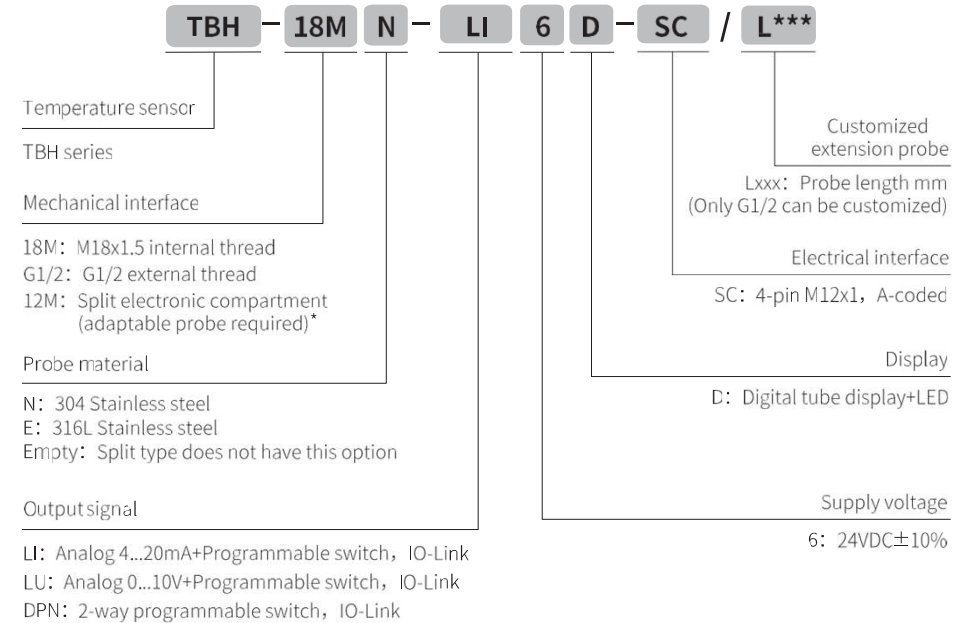
Pin	LI Output definition	LU Output definition	DPN Output definition
1	+24VDC	+24VDC	+24VDC
2	(OUT2) Switch or 4...20mA	(OUT2) Switch or 0...10V	(OUT2) Switch
3	0V	0V	0V
4	(OUT1) Switch or IO-Link	(OUT1) Switch or IO-Link	(OUT1) Switch or IO-Link

Dimensions

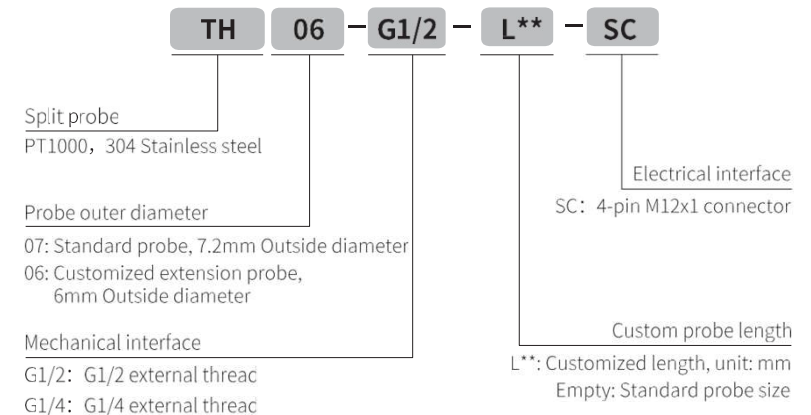


Unit: mm

Selection Guide



* Note: When measuring liquid temperature greater than 100°C, please use the split type (12M), separate the probe from the sensor, place the sensor at room temperature, and insert the probe into the high-temperature pipe. This split type model represents the temperature sensor, and a separate probe is required.



TP Temperature transmitter

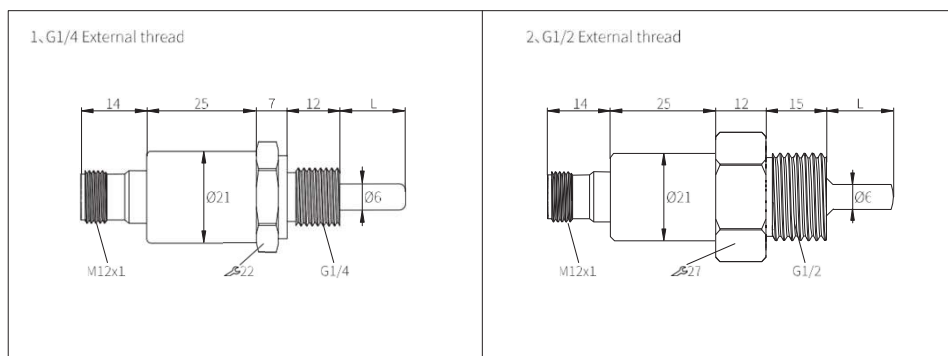
Temperature transmitter without display



- Compact size, easy to install in tight spaces
- Digital circuit compensation
- Strong anti-interference ability and high stability
- For measuring liquids and gases in industrial applications
- A variety of mechanical threads are available
- Voltage and current output optional
- The housing is made of 304 stainless steel

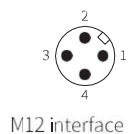


Dimension

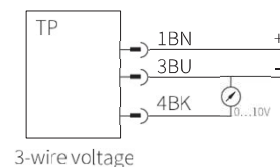
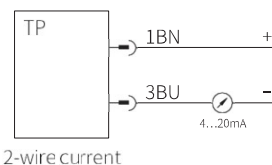


Unit: mm

Wiring diagram



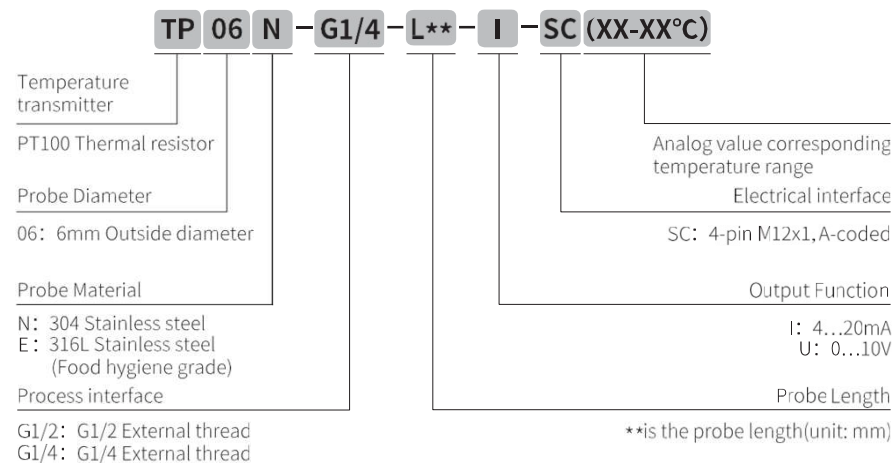
- 1: BN brown
2: WH white
3: BU blue
4: BK black



Technical parameters

Electrical data	
Operating voltage	24VDC $\pm 10\%$
Electrical interface	4-pin M12 connector, gold-plated, A-coded
Temperature parameters	
Measuring medium	Liquids, gases (non-toxic, harmful, flammable and explosive gases)
PT100	Class A
Measuring range	-40...150°C
Measurement accuracy	$\pm 1^\circ\text{C}$ *
Performance parameters	
Pressure resistance	400bar
Ambient temperature	-25...80°C
Storage temperature	-40...100°C
Mechanical parameters	
Material	304 Stainless steel
Process interface	G1/2 External thread, G1/4 External thread
Ambient temperature	-20...80°C
Storage temperature	-40...120°C
Protection class	IP65

Selection Guide





PLSX Flow Sensor

Simple settings Flow sensors



- Thermal detection principle
- LED indicator shows flow status
- Various process interface sizes to meet different needs
- Simple and convenient switch point setting, suitable for quick installation
- Optional high-strength plastic shell and stainless steel housing, sturdy and durable
- Insertion measurement, reliable monitoring of liquids such as water and oil in pipelines



Technical parameters

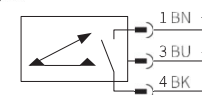
Output function	PNP NO	NPN NO	DC Relay	AC Relay
Application	Fluid: Water, Oil	Fluid: Water, Oil	Fluid: Water, Oil	Fluid: Water, Oil
Switching Regulation	Adjustment via potentiometer	Adjustment via potentiometer	Adjustment via potentiometer	Adjustment via potentiometer
Flow rate status	Three-color LED	Three-color LED	Three-color LED	Three-color LED
Water Operating Range	1...150cm/s	1...150cm/s	1...150cm/s	1...150cm/s
Oil Operating Range	3...300cm/s	3...300cm/s	3...300cm/s	3...300cm/s
Operating voltage	24VDC±20%	24VDC±20%	24VDC±20%	195...265 VAC
No-load current	≤ 60mA	≤ 60mA	≤ 80mA	≤ 80mA
Operational current	≤ 400mA	≤ 400mA	≤ 4AAC/4A DC	≤ 4AAC/4A DC
Switch-on/off time	2s (1...15S)	2s (1...15S)	2s (1...15S)	2s (1...15S)
Contact capacity			8A/250V	8A/250V
Temperature jump, response time	≤ 12s	≤ 12s	≤ 12s	≤ 12s
Temperature gradient	≤ 250K/min	≤ 250K/min	≤ 250K/min	≤ 250K/min
Mounting torque	≤ 100Nm	≤ 100Nm	≤ 100Nm	≤ 100Nm
Reverse polarity protection	YES	YES	YES	YES
Short-circuit protection	YES	YES	YES	YES
Pressure resistance	100bar	100bar	100bar	100bar
Probe material	304 stainless steel, 316L stainless steel available			
Housing material	PBT or 304 stainless steel			
Process interface	M18x1.5 internal thread, G1/2 external thread, G1/2 external extended thread, G1/4 external thread			
Electrical connection	2m PVC cable, 4-pin M12x1 connector			
Medium temperature	-20°C...80°C	-20°C...80°C	-20°C...80°C	-20°C...80°C
Ambient temperature	-20°C...80°C	-20°C...80°C	-20°C...80°C	-20°C...80°C
Storage temperature	-40°C...100°C	-40°C...100°C	-40°C...100°C	-40°C...100°C
Protection class	IP67	IP67	IP67	IP67

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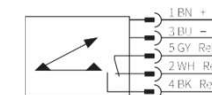
Models	Output signal		
	PNP NO output	NPN NO output	Relay output
G1/2 External thread	PLSX-1/2G-AP6D-SC	PLSX-1/2G-AN6D-SC	PLSX-1/2G-VR6D-SC
	PLSX-1/2G-AP6D-C2	PLSX-1/2G-AN6D-C2	PLSX-1/2G-VR6D-C2
G1/2 Extended external thread	PLSX-1/2GL-AP6D-SC	PLSX-1/2GL-AN6D-SC	PLSX-1/2GL-VR6D-SC
	PLSX-1/2GL-AP6D-C2	PLSX-1/2GL-AN6D-C2	PLSX-1/2GL-VR6D-C2
G1/4 External thread	PLSX-1/4G-AP6D-SC	PLSX-1/4G-AN6D-SC	PLSX-1/4G-VR6D-SC
	PLSX-1/4G-AP6D-C2	PLSX-1/4G-AN6D-C2	PLSX-1/4G-VR6D-C2
M18x1.5 Internal thread	PLSX-18M N-AP6D-SC	PLSX-18M N-AN6D-SC	PLSX-18MN-VR6D-SC
	PLSX-18MN-AP6D-C2	PLSX-18M N-AN6D-C2	PLSX-18MN-VR6D-C2
G1/2 External thread (Metal housing)	PLSU- 1/2G-AP6D-SC	PLSU-1/2G-AN6D-SC	PLSU- 1/2G-VR6D-SC
M18x1.5 Internal thread (Metal housing)	PLSU-18M N-AP6D-SC	PLSU-18MN-AN6D-SC	PLSU-18M N-VR6D-SC

Wiring diagram

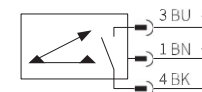
PNP Normally open



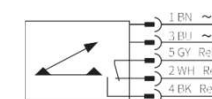
DC relay output



NPN Normally open



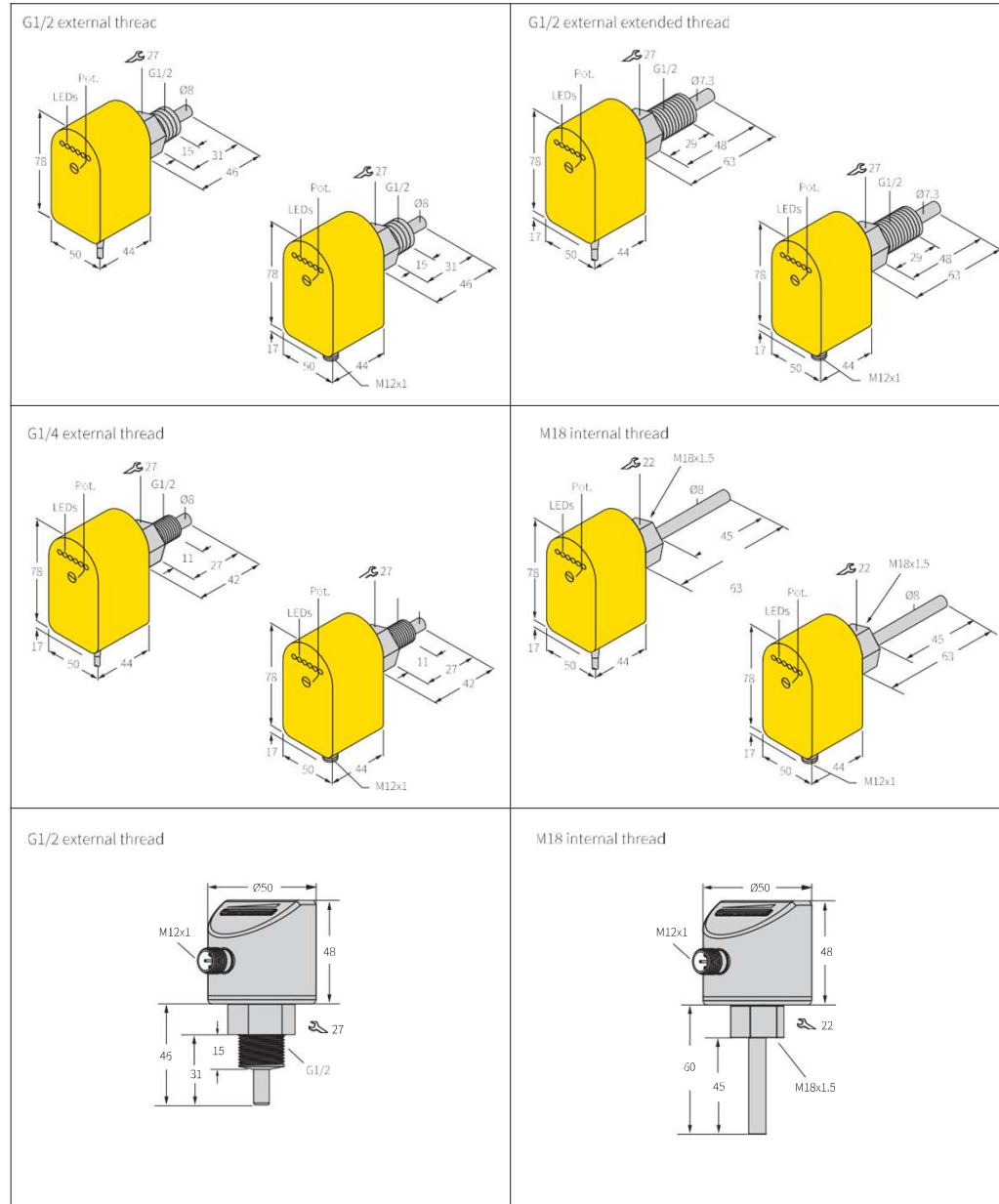
AC relay output



M12 interface

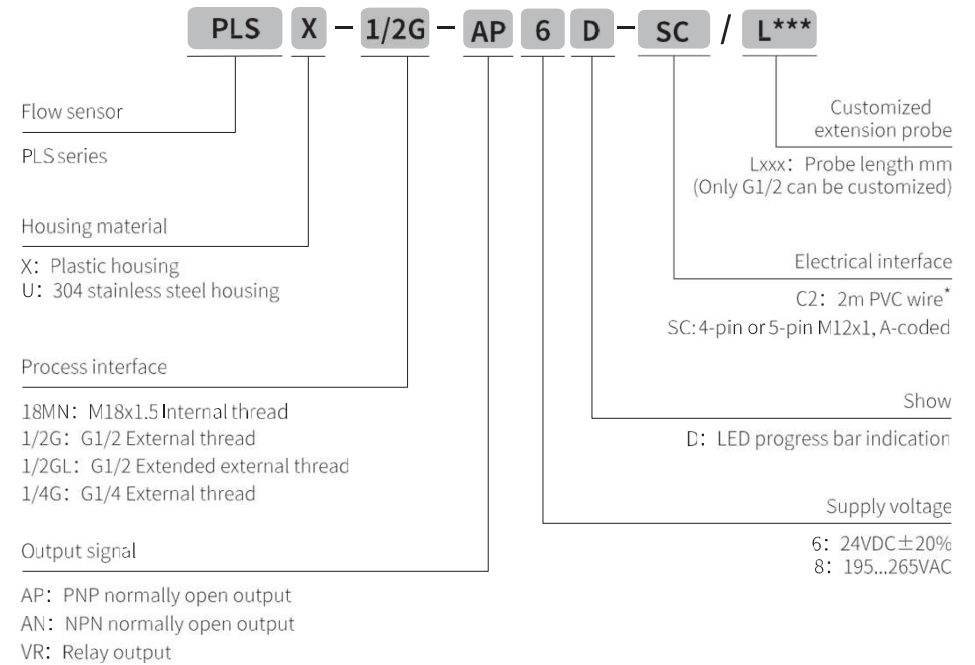
- 1: BN brown
- 2: WH white
- 3: BU blue
- 4: BK black
- 5: GY gery

Dimension



Unit: mm

Selection Guide



*The wire connection method is only applicable to plastic housing switches.
The wire length can be customized in meters, for example: C5 = 5 meters PVC wire.

PLSN Flow sensor

Flow sensor with display



- Flow and Temperature alarm
- Calorimetric principle
- Insert type M18 x 1.5 internal thread / G1/2" external thread
- Standard 5-pin A-code M12 interface
- Process value is displayed through digital tube
- 304 stainless steel housing and probe
- Programmed by 3 buttons
- Digital display can be mirrored



IP65

Models	Process interface	
Output signal	M18x1.5 Internal thread	G1/2 External thread
PNP normally open output	PLSN-18MN-AP6D-SC	PLSN-1/2G-AP6D-SC
	PLSE-18MN-AP6D-SC	PLSE-1/2G-AP6D-SC
NPN Normally Open	PLSN-18MN-AN6D-SC	PLSN-1/2G-AN6D-SC
	PLSE-18MN-AN6D-SC	PLSE-1/2G-AN6D-SC
4...20mA output + 2-way PNP output (output 0V when alarm occurs)	PLSN-18MN-PI6D-SC	PLSN-1/2G-PI6D-SC
	PLSE-18MN-PI6D-SC	PLSE-1/2G-PI6D-SC
4...20mA output + 2-way NPN output (output 0V when alarm occurs)	PLSN-18MN-NI6D-SC	PLSN-1/2G-NI6D-SC
	PLSE-18MN-NI6D-SC	PLSE-1/2G-NI6D-SC
4...20mA output + 2-way PNP output (output 24V when alarming)	PLSN-18MN-AI6D-SC	PLSN-1/2G-AI6D-SC
	PLSE-18MN-AI6D-SC	PLSE-1/2G-AI6D-SC
4...20mA output + 2-way NPN output (output 24V when alarming)	PLSN-18MN-BI6D-SC	PLSN-1/2G-BI6D-SC
	PLSE-18MN-BI6D-SC	PLSE-1/2G-BI6D-SC

Motiontronix

Technical Parameters

Electrical data	
Operating voltage	24VDC $\pm$ 10%
Operating current	$\leq$ 400mA
Electrical interface	4-pin M12 connector gold-plated A-coded
Flow parameters	
Measuring medium	Water, Oil
Measuring principle	Thermal
Operating range	water: 1...150cm/s , oil: 3...300cm/s
Temperature alarm accuracy	1°C
Process interface	M18x1.5 Internal thread, G1/2 External thread
Output parameters	
OUT1 signal (pin 4)	Switch
OUT2 signal (pin 2)	Switch
OUT3 signal (pin 5)	4...20mA
Switch output type	PNP/NPN, Normally open
Switching output current	250mA
Switch on/off time	1~15s
Short-circuit protection	yes
Reverse polarity protection	yes
Mechanical parameters	
Housing material	304 Stainless steel
Probe material	304 Stainless steel
Pressure resistance	100bar
Thread torque	30Nm
Medium temperature	-20...80°C
Ambient temperature	-40...80°C
Storage temperature	-40...100°C
Protection class	IP65

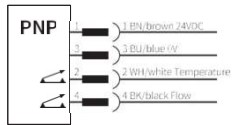
Dimension

G1/2 External thread	M18 Internal thread
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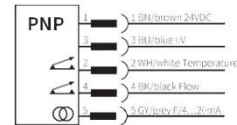
Unit: mm

Wiring diagram

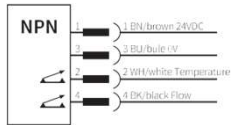
PNP Normally open



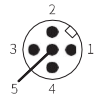
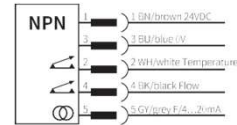
4...20mA+PNP Normally open



NPN Normally open



4...20mA+NPN Normally open

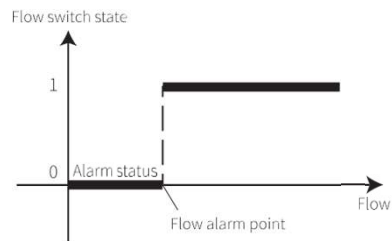


1: BN brown
2: WH white
3: BU blue
4: BK black
5: GY grey

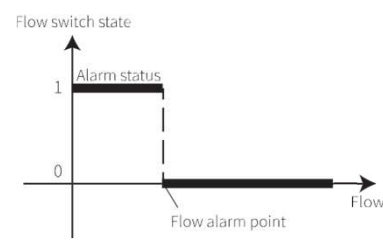
M12 Interface

Switch state

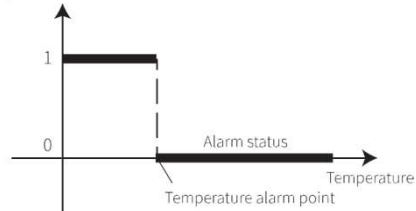
Output signal: PI, NI



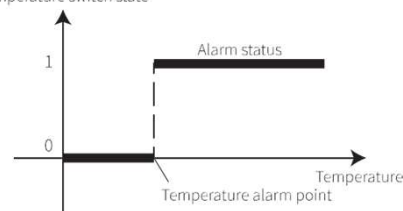
Output signal: AP, AN, AI, BI



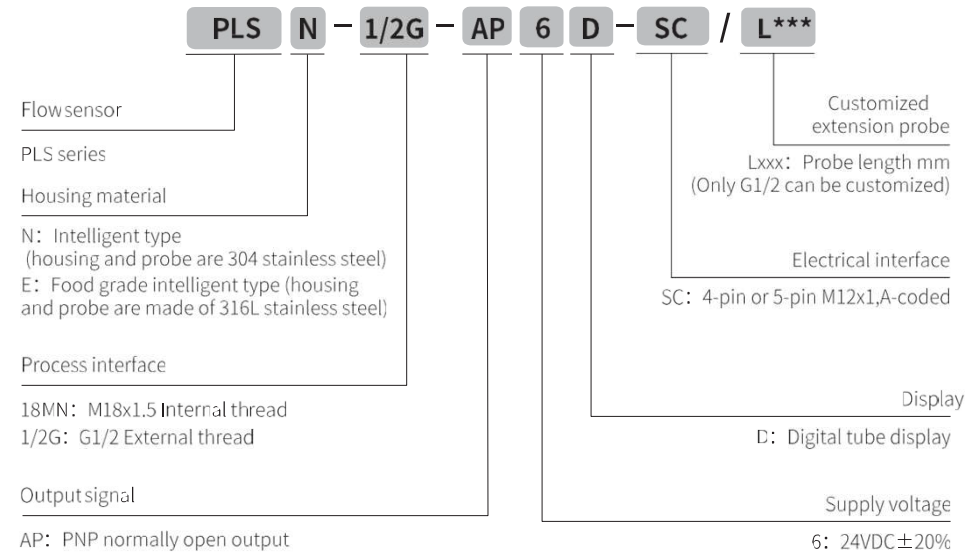
Temperature switch state



Temperature switch state



Selection Guide



FMV Vortex Flow Sensor

Vortex flow sensor for precise metering



- Von Kaman vortex principle
- Flow, temperature dual switching signal output, dual display
- High-resolution IPS display
- Four viewing directions can be switched
- Cumulative flow recording function
- Analog or switch output, compatible with IO-Link protocol
- Switching signal NO/NC,NPN/PNP/push-pull optional
- Units can be selected, simple button menu operation
- Various thread specifications, suitable for different installation requirements
- Compact size, takes up little space
- Standard 4-pin M12 electrical interface



Dimension

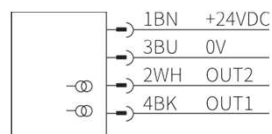
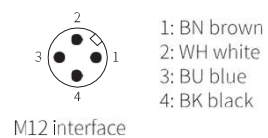
Applicable measuring range: 2...16L/min 5...40L/min	
Applicable measuring range: 10...100L/min	

Technical Parameters

Motiontronix

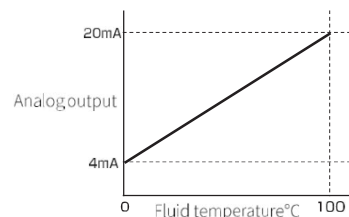
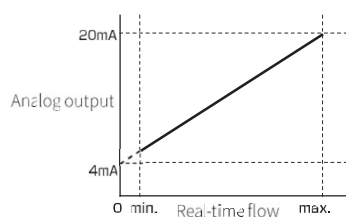
Electrical data			
Operating voltage	24VDC ±10%		
Operating current	<100mA		
Process interface	Thread G or RC or NPT		
Measuring medium	water		
Electrical interface	4-pin M12 connector, gold-plated, A-coded		
Flow parameters			
Measuring range	2...16L/min(0.12...0.96m³/h) 5...40L/min(0.3...2.4m³/h) 10...100L/min(0.5...6m³/h)		
Flow accuracy	< 3.0%F.S		
Cumulative flow range	99999L or 99999m³ Note: Power off reset, For reference only		
Pressure level	10bar, maximum pressure 16bar		
Real-time flow unit	L/min or m³/h, button optional		
Switching signal output type	PNP/NPN/Push-Pull, NO/NC, Hysteresis/Window programmable		
Switching signal output current	250mA		
Switch point SP setting range	2.2L/min...16L/min	5.4L/min...40L/min	11L/min...100L/min
Release point rP setting range	2L/min...15.8L/min	5L/min...39.6L/min	10L/min...99L/min
SP、rP minimum interval	0.2L/min(1%F.S)	0.4L/min(1%F.S)	1L/min(1%F.S)
Switching signal output resolution	0.1L/min	0.1L/min	0.1L/min
Temperature parameters			
Measuring range	0...100°C		
Temperature accuracy	1°C		
Display units	°C or °F Button optional		
Switching signal output type	PNP/NPN/Push-Pull, NO/NC, Hysteresis/Window programmable		
Switching signal output current	250mA		
Switch point SP setting range	1°C...100°C		
Release point rP setting range	0°C...99°C		
SP、rP minimum interval	1°C (1%F.S)		
Switching signal output resolution	0.1°C		
Analog output			
Output channels	2 analog channels		
Output method	4...20mA output or 0...10V, depending on the model		
Output data correspondence	OUT1: Flow or Temperature, OUT2: Flow or Temperature (Button optional)		
IO-Link information			
Vencor ID	1317 (0x0525)		
Device ID	198162 (0x030612)		
Number of interfaces	1		
IO-Link protocol version	V1.1		
IO-Link interface type	Class A		
Frame type	TYPE_2_V		
Transmission rate	COM2 38.4kbit/s		
Minimum cycle time	3000us		
ISDU(Indexing Service)	Support		
Block parameter operations	Not support		
Data storage(DS)	Support		
Data storage lock	Support Note:To maintain compatibility, this feature is supported, but the device will not perform this operation		
Mechanical parameters			
Contact liquid material	PPS/304 Stainless steel		
Ambient temperature	-10...65°C		
Storage temperature	-20...80°C		
Protection class	IP65		

Wiring diagram

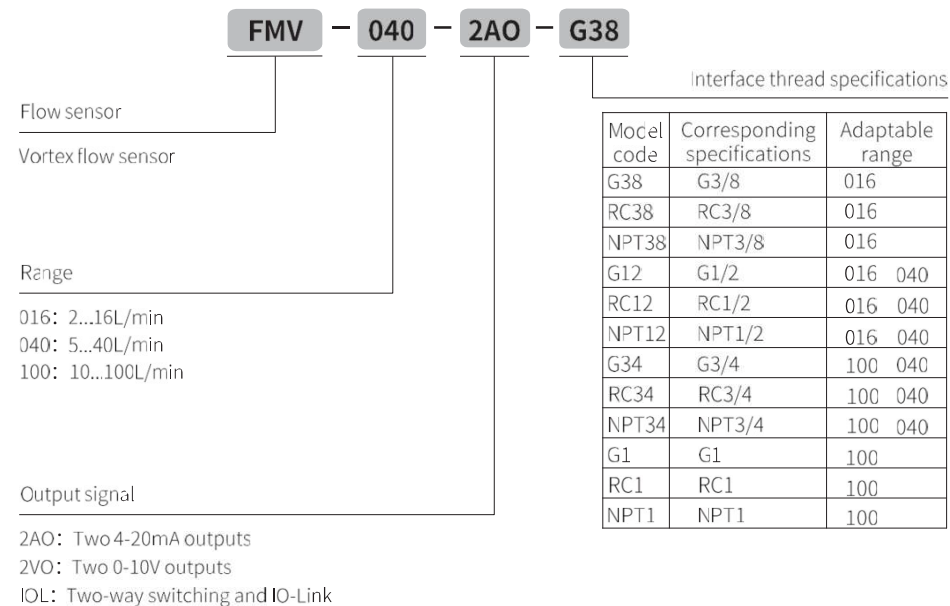


Pin	2AO Output definition	2VO Output definition	IOL Output definition
1	+24VDC	+24VDC	+24VDC
2	(OUT2) 4...20mA	(OUT2) 0...10V	(OUT2) Switch (flow, temperature optional)
3	0V	0V	0V
4	(OUT1) 4...20mA	(OUT1) 0...10V	(OUT1) Switch (flow) or IO-Link
Note: The data relationship button corresponding to the pin is optional OUT1: Flow data OUT2: Temperature data; or OUT1: Temperature OUT2: Flow data			

Corresponding relationship between analog and temperature or flow



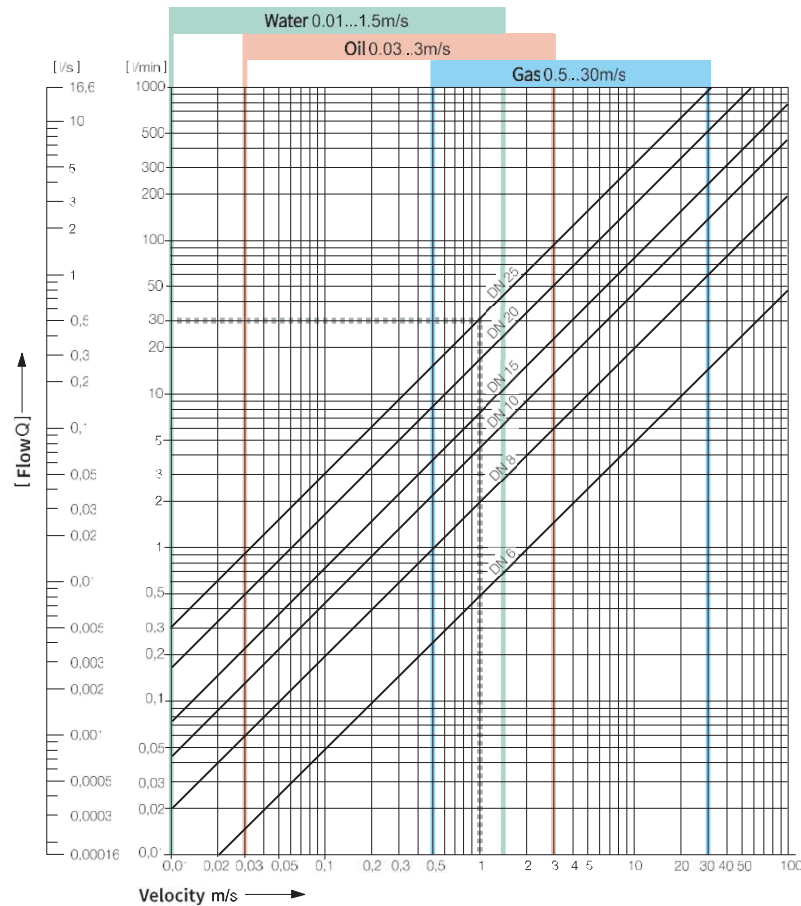
Selection guide



Flow-velocity comparison chart

According to different pipe diameters, the flow velocity curve can easily convert the flow into flow velocity. The curve clearly explains the relationship between the two. If the velocity exceeds the detection range of the sensor, the flow velocity can be increased or reduced by changing the pipe diameter to ensure the normal operation of the flow monitor

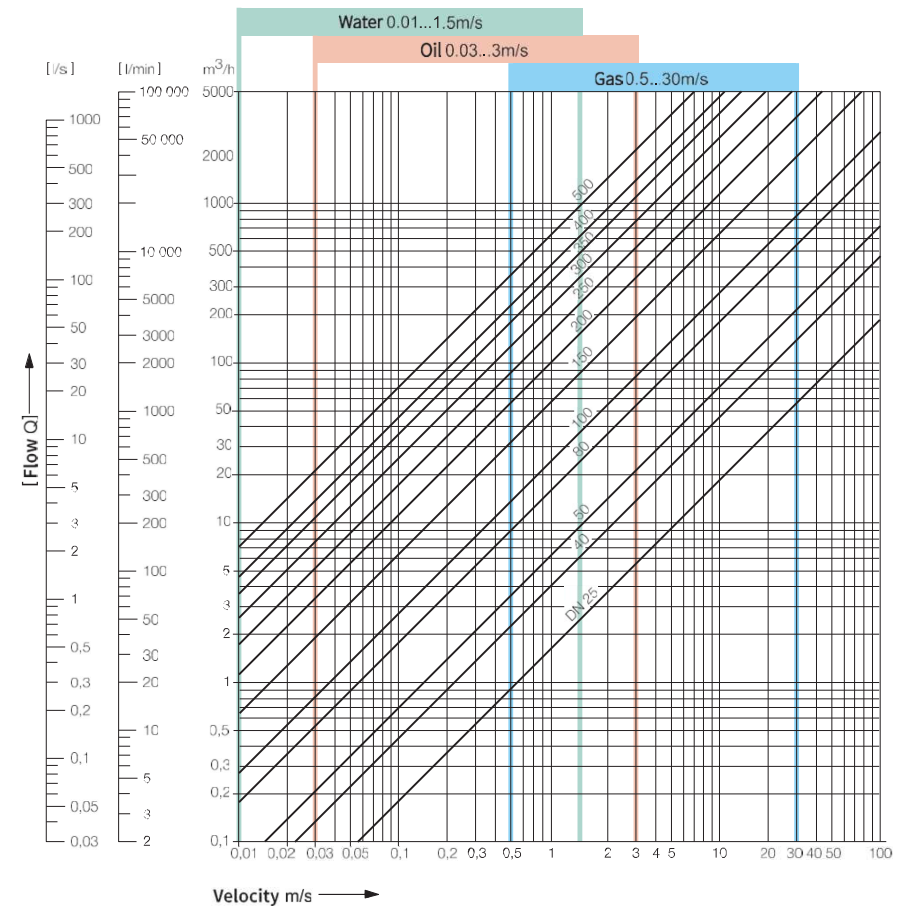
Pipe diameter 6...25mm



For example: From the flow-velocity comparison chart above, we can know that for a DN25 pipe, when the flow rate is 30 l/min, the flow velocity is 1m/s.

Flow-velocity comparison chart

Pipe diameter 25...500mm



Note:
The length of the wire can be customized according to the requirements.
The ** in the model number represents the cable length in meters.
For example, ZAK3-2/PVC, the cable length is 2 meters.