

CATALOG

Differential Pressure Transmitter AT5010



- SIL2/3 certification
- Accuracy up to $\pm 0.05\%$ FS
- 10-year stability of $\pm 0.1\%$ of URL
- -500 kPa to 3 MPa (minimum range 0 to 100 Pa)
- Static pressure up to 40 MPa
- Intuitive interface and built-in buttons for quick commissioning of the device
- SS316L/HC/Tantalum/SS316L coated with PTFE/SS316L gold plated/Inconel 625, etc.
- HART 7.0/Modbus-RTU and others
- Multiple standard process connections, as well as filler fluids, enabling connection to various forms of piping, connection standards are according to EN, ASME/ANSI, GB, GOST, JIS etc.

- Combination of more complex level and volume flow measurements possible
- Convenient and user-friendly, wide options in forms and material
- Precision in measurement
- Exploration in our range of state-of-the-art differential pressure transmitters
- Unrivaled precision for accurate industrial measurements
- Features, specifications and applications covered in detail
- Display and output flow rate
- **SIL, NACE, NEPSI, ATEX, CE, PMI, EN10204**

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Product Overview

Differential Pressure Transmitter
AT5010

AT5010 differential pressure transmitter is a high-performance pressure transmitter with international leading technology carefully developed by using the world's advanced monocrystalline silicon sensor technology and patented packaging process. The monocrystalline silicon sensor is located at the top of the metal body, away from the contact surface of the medium, to achieve mechanical isolation and thermal isolation. The sintered glass integrated sensor leads achieve high-strength electrical insulation with a metal matrix, improving the electronic circuit's flexible performance and ability to withstand transient voltage protection. These monocrystalline silicon sensor packaging technologies ensure that AT5010 differential pressure transmitter can handle complex chemical and mechanical loads, while providing strong electromagnetic interference resistance for demanding industrial environment applications.



Main Parameters

- Range: -500 kPa to 3 MPa (minimum range 0 to 100 Pa).
- Output signal: 4–20 mA and HART 7, Modbus-RTU/RS485 and others.
- Reference accuracy: $\pm 0.075\%$ FS, optional $\pm 0.05\%$ FS. See datasheet for details.

Measuring Medium

Liquid, gas, steam and other medium which is suitable for wetted parts.

Applications

Pressure, differential pressure, level, density, interface and flow rate.

Model Code

Differential Pressure Transmitter

Model Type	Code	Description
AT5010-		Differential pressure transmitter ($\pm 0.075\%$ FS accuracy)
Type	DP	Differential pressure
	2	-6 to 6 kPa with the minimum range of 0 to 0.1 kPa ($\pm 0.2\%$ FS accuracy for 0.5 kPa and below)
	3	-40 to 40 kPa
Range	4	-250 to 250 kPa
	5	-0.5 to 1 MPa
	6	-0.5 to 3 MPa
	SS	SS316L, silicone oil
Isolation diaphragms	SF	SS316L, fluorocarbon oil
	HS	Hastelloy C, silicon oil
	HF	Hastelloy C, fluorocarbon oil
	GS	SS316L, gold plated, silicone oil
Sealing method	P	PTFE O-ring, temperature range -45 to 205°C
	-E1	Aluminum housing, polyester coating, 1/2 NPT F cable entry
Electrical connection & housing	-E2	Aluminum housing, polyester coating, M20 x 1.5 F cable entry
	-E3	SS316 housing, 1/2 NPT F cable entry
	-E4	SS316 housing, M20 x 1.5 F cable entry
Output signal	S	24 V DC loop power supply, 4–20 mA, HART 7, two-wire
Display mode	M5	LCD with backlight display module, physical buttons
	-D1	1/4-18 NPT F, with drain and vent in back of freedom flange, SS316
Body connection	-D2	1/4-18 NPT F, with drain and vent in above the side of freedom flange, SS316
	-D3	1/4-18 NPT F, with drain and vent in lower side of freedom flange, SS316
	C1	Freedom flange, M20 x 1.5 M with impulse pipe $\Phi 14 \times 2 \times 30$ mm, SS304
	C2	Freedom flange, 1/2-14 NPT F, SS304
	H10	Level flange, HG/T 20592-2009 DN25 RF, PN10 to PN40
	H20	Level flange, HG/T 20592-2009 DN50 RF, PN10 to PN40
	H30	Level flange, HG/T 20592-2009 DN80 RF, PN10
Process connection	H31	Level flange, HG/T 20592-2009 DN80 RF, PN16 to PN40
	F3	Assemble to SS304 Three-way manifold
	F4	Assemble to SS316 Three-way manifold
	F5	Assemble to SS304 Five-way manifold
	F6	Assemble to SS316 Five-way manifold
	NA	Unavailable (unavailable if assembled manifold)

Mounting bracket	B1	Bend bracket mounted in 2" fixed pipe with install components and fasteners, carbon steel
	B2	Bend bracket mounted in backboard with install components and fasteners,, carbon steel
	B3	Flat bracket mounted in 2" fixed pipe with install components and fasteners, carbon steel
	B7	Bend bracket mounted in 2" fixed pipe with install components and fasteners, SS304
	B8	Flat bracket mounted in 2" fixed pipe with install components and fasteners, SS304
	B9	Bend bracket mounted in 2" fixed pipe with install components and fasteners, SS316
	B0	Flat bracket mounted in 2" fixed pipe with install components and fasteners, SS316
	NA	Unavailable
Anti-explosion	d	ExdbIIC T6...T4 Gb, NEPSI
	i	ExialIIC T4 Ga, NEPSI
	NA	Unavailable
Special treatment	T	Degreasing (removing oil and grease from product surface)
	NA	Unavailable
Accuracy	1	Ultra accuracy $\pm 0.05\%$ ($\pm 0.075\%$ FS accuracy for 6 kPa and below)
	NA	Standard $\pm 0.075\%$ ($\pm 0.1\%$ FS accuracy for 6 kPa and below)

Additional Options

Extended warranty	2-year warranty
	3-year warranty
Subsidiary requirements	English stainless steel nameplate
	Russian stainless steel nameplate
	Anti-explosion cable gland, SS316, 1/2 NPT, cable diameter 6 to 8 mm, optional 11 to 17 mm
	Anti-explosion cable gland, SS316, M20 x 1.5, cable diameter 6 to 8 mm, optional 11 to 17 mm
	Nickel plated brass cable gland, 1/2 NPT, cable diameter 6 to 8 mm, optional 11 to 17 mm
Report	Nickel plated brass cable gland, M20 x 1.5, cable diameter 6 to 8 mm, optional 11 to 17 mm
	Calibration certificate
Special certifications	SIL
	ATEX Exd
	ATEX Exia
	Certificate of Compliance
	IEC Exd
	IEC Exia
	NACE
	PMI certificate
Alarm output	EN10204
	NAMUR NE43 analog output, high alarm, 20.8 mA
	NAMUR NE43 analog output, low alarm, 3.8 mA
	Unavailable

Product Overview

Single Flange Differential Pressure/ Level Transmitter
AT5010

AT5010 differential pressure level transmitter is a high-performance pressure transmitter with international leading technology carefully developed by using the world's advanced monocrystalline silicon sensor technology and patented packaging process. The monocrystalline silicon sensor is located at the top of the metal body, away from the contact surface of the medium, to achieve mechanical isolation and thermal isolation. The sintered glass integrated sensor leads achieve high-strength electrical insulation with a metal matrix, improving the electronic circuit's flexible performance and ability to withstand transient voltage protection. These monocrystalline silicon sensor packaging technologies ensure that AT5010 differential pressure level transmitter can handle complex chemical and mechanical loads, while providing strong electromagnetic interference resistance for demanding industrial environment applications.



Main Parameters

- Range: -100 kPa to 1 MPa (minimum range 0 to 4 kPa). See model code for details.
- Output signal: 4–20 mA and HART7, Modbus-RTU/RS485 and others.
- Reference accuracy: $\pm 0.2\%$ FS, $\pm 0.1\%$ FS (optional). See datasheet for details.

Measuring Medium

Liquid, gas, steam and other medium which is suitable for wetted parts.

Applications

Pressure, differential pressure, level, density, interface and flow rate.

Model Code

DN40/DN50 Single Flange

Model Type	Code	Description
AT5010-		DN40/DN50 single flange level transmitter ($\pm 0.2\%$ FS accuracy)
Type	LT	Monocrystalline silicon sensor
Range	2	-6 to 6 kPa (minimum range 0 to 4 kPa)
	3	-40 to 40 kPa
	4	-100 to 250 kPa
	5	-0.1 to 1 MPa
Electrical connection & housing	E1	Aluminum housing, polyester coating, 1/2 NPT F cable entry
	E2	Aluminum housing, polyester coating, M20 x 1.5 F cable entry
	E3	SS316 housing, 1/2 NPT F cable entry
	E4	SS316 housing, M20 x 1.5 F cable entry
Output signal	S	24 V DC loop power supply, 4–20 mA, HART 7, two-wire
Display mode	M5	LCD with backlight display module, physical buttons
Isolation fluid	S	Normal temperature silicone oil, temperature range -40 to 205°C
	H	High temperature silicone oil, temperature range 0 to 315°C
Process flange material	S6	SS316
Isolation diaphragms	A	SS316L
	C	Tantalum (range ≥ 10 kPa)
	H	Hastelloy C (range ≥ 10 kPa)
	P	SS316 and PTFE coating (range ≥ 50 kPa)
	F	SS316 and PFA coating (range ≥ 50 kPa)
	G	SS316L gold plated (range ≥ 10 kPa)
Process connection (high side)	H20	HG/T 20592-2009 DN50 RF, PN10 to PN40
	H21	HG/T 20592-2009 DN50 RF, PN63
	H22	HG/T 20592-2009 DN50 RF, PN100
	HC0	HG/T 20592-2009 DN40 RF, PN10 to PN40 (unavailable if assembled diaphragm extension)
	HC1	HG/T 20592-2009 DN40 RF, PN63 (unavailable if assembled diaphragm extension)
	HC2	HG/T 20592-2009 DN40 RF, PN100 (unavailable if assembled diaphragm extension)
	X	Optional flange
Diaphragm extension	D	No diaphragm extension
	D1	Length 50 mm, OD 46 mm
	D2	Length 100 mm, OD 46 mm
	D3	Length 150 mm, OD 46 mm

Low pressure side connectors	C1	Freedom flange, M20 × 1.5 M with impulse pipe Ø14 × 2 × 30 mm, SS304
	C2	Freedom flange, 1/2-14 NPT F, SS304
	NA	Unavailable
Anti-explosion	d	ExdbIIC T6...T4 Gb, NEPSI
	i	ExialIIC T4 Ga, NEPSI
	NA	Unavailable
Special treatment	T	Degreasing (removing oil and grease from product surface)
	NA	Unavailable
Accuracy	1	Ultra accuracy ±0.1% (unavailable if range ≤ 10 kPa)
	NA	Standard ±0.2%

Additional Options

Extended warranty	2-year warranty
	3-year warranty
Subsidiary requirements	English stainless steel nameplate
	Russian stainless steel nameplate
	Anti-explosion cable gland, SS316, 1/2 NPT, cable diameter 6 to 8 mm, optional 11 to 17 mm
	Anti-explosion cable gland, SS316, M20 × 1.5, cable diameter 6 to 8 mm, optional 11 to 17 mm
	Nickel plated brass cable gland, 1/2 NPT, cable diameter 6 to 8 mm, optional 11 to 17 mm
Report	Nickel plated brass cable gland, M20 × 1.5, cable diameter 6 to 8 mm, optional 11 to 17 mm
	Calibration certificate
Special certifications	SIL
	ATEX Exd
	ATEX Exia
	Certificate of Compliance
	IEC Exd
	IEC Exia
	NACE
	PMI certificate
	EN10204
Alarm output	NAMUR NE43 analog output, high alarm, 20.8 mA
	NAMUR NE43 analog output, low alarm, 3.8 mA
	Unavailable

Model Code

DN65/DN80 Single Flange

Model Type	Code	Description
AT5010-		DN65/DN80 single flange level transmitter ($\pm 0.2\%$ FS accuracy)
Type	LT	Monocrystalline silicon sensor
Range	2	-6 to 6 kPa (minimum range 0 to 4 kPa)
	3	-40 to 40 kPa
	4	-100 to 250 kPa
	5	-0.1 to 1 MPa
Electrical connection & housing	E1	Aluminum housing, polyester coating, 1/2 NPT F cable entry
	E2	Aluminum housing, polyester coating, M20 x 1.5 F cable entry
	E3	SS316 housing, 1/2 NPT F cable entry
	E4	SS316 housing, M20 x 1.5 F cable entry
Output signal	S	24 V DC loop power supply, 4–20 mA, HART 7, two-wire
Display mode	M5	LCD with backlight display module, physical buttons
Isolation fluid	S	Normal temperature silicone oil, temperature range -40 to 205°C
	H	High temperature silicone oil, temperature range 0 to 315°C
Process flange material	S6	SS316
Isolation diaphragms	A	SS316L
	C	Tantalum (range ≥ 10 kPa)
	H	Hastelloy C (range ≥ 10 kPa)
	P	SS316 and PTFE coating (range ≥ 50 kPa)
	F	SS316 and PFA coating (range ≥ 50 kPa)
	G	SS316L gold plated (range ≥ 10 kPa)
Process connection (high side)	H30	HG/T 20592-2009 DN80 RF, PN10 to PN16
	H31	HG/T 20592-2009 DN80 RF, PN25 to PN40
	H32	HG/T 20592-2009 DN80 RF, PN63
	HD0	HG/T 20592-2009 DN65 RF, PN10 to PN16
	HD1	HG/T 20592-2009 DN65 RF, PN25 to PN40
	HD2	HG/T 20592-2009 DN65 RF, PN63
	X	Optional flange
Diaphragm extension	D	No diaphragm extension
	D1	Length 50 mm; DN80: OD 66 mm, DN65: OD 56 mm
	D2	Length 100 mm; DN80: OD 66 mm, DN65: OD 56 mm
	D3	Length 150 mm; DN80: OD 66 mm, DN65: OD 56 mm

Low process side connectors	C1	Freedom flange, M20 × 1.5 M with impulse pipe Ø14 × 2 × 30 mm, SS304
	C2	Freedom flange, 1/2-14 NPT F, SS304
	NA	Unavailable
Anti-explosion	d	ExdbIIC T6...T4 Gb, NEPSI
	i	ExialIIC T4 Ga, NEPSI
	NA	Unavailable
Special treatment	T	Degreasing (removing oil and grease from product surface)
	NA	Unavailable
Accuracy	1	Ultra accuracy ±0.1% (unavailable if range ≤ 10 kPa)
	NA	Standard ±0.2%

Additional Options

Extended warranty	2-year warranty
	3-year warranty
Subsidiary requirements	English stainless steel nameplate
	Russian stainless steel nameplate
	Anti-explosion cable gland, SS316, 1/2 NPT, cable diameter 6 to 8 mm, optional 11 to 17 mm
	Anti-explosion cable gland, SS316, M20 × 1.5, cable diameter 6 to 8 mm, optional 11 to 17 mm
	Nickel plated brass cable gland, 1/2 NPT, cable diameter 6 to 8 mm, optional 11 to 17 mm
Report	Nickel plated brass cable gland, M20 × 1.5, cable diameter 6 to 8 mm, optional 11 to 17 mm
	Calibration certificate
Special certifications	SIL
	ATEX Exd
	ATEX Exia
	Certificate of Compliance
	IEC Exd
	IEC Exia
	NACE
	PMI certificate
	EN10204
Alarm output	NAMUR NE43 analog output, high alarm, 20.8 mA
	NAMUR NE43 analog output, low alarm, 3.8 mA
	Unavailable

Product Overview

Dual Flange Differential Pressure/Level Transmitter
AT5010

With internationally leading monocrystalline silicon sensor technology and patented packaging process, AT5010 differential pressure remote transmitter is a high-performance pressure transmitter. The monocrystalline silicon sensor is located at the top of the metal body, away from the contact surface of the medium, to achieve mechanical isolation and thermal isolation. The sintered glass integrated sensor leads achieve high-strength electrical insulation with a metal matrix, improving the electronic circuit's flexible performance and ability to withstand transient voltage protection. The monocrystalline silicon sensor packaging technologies ensure that AT5010 differential pressure remote transmitter can handle complex chemical and mechanical loads while providing strong electromagnetic interference resistance for demanding industrial environment applications.



Main Parameters

- Range: -100 kPa to 1 MPa (minimum range 0 to 7 kPa). See model code for details.
- Output signal: 4–20 mA and HART 7, Modbus-RTU/RS485 and others.
- Reference accuracy: $\pm 0.2\%$ FS, $\pm 0.1\%$ FS (optional). See datasheet for details.

Measuring Medium

Liquid, gas, steam and other medium which is suitable for wetted parts.

Applications

Pressure, differential pressure, level, density, interface and flow rate.

Model Code

DN40/DN50 Dual Flange

Model Type	Code	Description
AT5010-		DN40/DN50 dual flange level transmitter (accuracy $\pm 0.2\%$ FS)
Type	YDP	Monocrystalline silicon sensor
	3	-40 to 40 kPa (minimum range 0 to 7 kPa)
Range	4	-100 to 250 kPa
	5	-0.1 to 1 MPa
Electrical connection & housing	E1	Aluminum housing, polyester coating, 1/2 NPT F cable entry
	E2	Aluminum housing, polyester coating, M20 × 1.5 F cable entry
	E3	SS316 housing, 1/2 NPT F cable entry
	E4	SS316 housing, M20 × 1.5 F cable entry
Output signal	S	24 V DC loop power supply, 4–20 mA, HART 7, two-wire
Display mode	M5	LCD with backlight display module, physical buttons
Capillary type	P	PVC sheath and armored SS304
Isolation fluid	S	Normal temperature silicone oil, temperature range -40 to 205°C
	H	High temperature silicone oil, temperature range 0 to 315°C
Process flange material	S6	SS316
	A	SS316L
	C	Tantalum (range ≥ 10 kPa)
Isolation diaphragm	H	Hastelloy C-276 (range ≥ 10 kPa)
	P	SS316 and PTFE coating (range ≥ 50 kPa)
	F	SS316 and PFA coating (range ≥ 50 kPa)
	G	SS316L gold plated (range ≥ 10 kPa)
Process connection	H20	HG/T 20592-2009 DN50 RF, PN10 to PN40
	H21	HG/T 20592-2009 DN50 RF, PN63
	H22	HG/T 20592-2009 DN50 RF, PN100
	HC0	HG/T 20592-2009 DN40 RF, PN10 to PN40 (unavailable if assembled diaphragm extension)
	HC1	HG/T 20592-2009 DN40 RF, PN63 (unavailable if assembled diaphragm extension)
	HC2	HG/T 20592-2009 DN40 RF, PN100 (unavailable if assembled diaphragm extension)
	X	Optional flange
Diaphragm extension	D	No diaphragm extension
	D1	Length 50 mm, OD 46 mm
	D2	Length 100 mm, OD 46 mm
	D3	Length 150 mm, OD 46 mm

H-end capillary	00	Capillary-free
	01	1 m SS316 capillary tube, PVC sheath and armored SS304
	02	2 m SS316 capillary tube, PVC sheath and armored SS304
	03	3 m SS316 capillary tube, PVC sheath and armored SS304
	04	4 m SS316 capillary tube, PVC sheath and armored SS304
	05	5 m SS316 capillary tube, PVC sheath and armored SS304
	06	6 m SS316 capillary tube, PVC sheath and armored SS304
	07	7 m SS316 capillary tube, PVC sheath and armored SS304
	08	8 m SS316 capillary tube, PVC sheath and armored SS304
	09	9 m SS316 capillary tube, PVC sheath and armored SS304
	10	10 m SS316 capillary tube, PVC sheath and armored SS304
L-end capillary	00	Capillary-free
	01	1 m SS316 capillary tube, PVC sheath and armored SS304
	02	2 m SS316 capillary tube, PVC sheath and armored SS304
	03	3 m SS316 capillary tube, PVC sheath and armored SS304
	04	4 m SS316 capillary tube, PVC sheath and armored SS304
	05	5 m SS316 capillary tube, PVC sheath and armored SS304
	06	6 m SS316 capillary tube, PVC sheath and armored SS304
	07	7 m SS316 capillary tube, PVC sheath and armored SS304
	08	8 m SS316 capillary tube, PVC sheath and armored SS304
	09	9 m SS316 capillary tube, PVC sheath and armored SS304
	10	10 m SS316 capillary tube, PVC sheath and armored SS304
Mounting bracket	B1	Bend bracket mounted in 2" fixed pipe with install components and fasteners, carbon steel
	B2	Bend bracket mounted in backboard with install components and fasteners, carbon steel
	B3	Flat bracket mounted in 2" fixed pipe with install components and fasteners, carbon steel
	B7	Bend bracket mounted in 2" fixed pipe with install components and fasteners, SS304
	B8	Flat bracket mounted in 2" fixed pipe with install components and fasteners, SS304
	B9	Bend bracket mounted in 2" fixed pipe with install components and fasteners, SS316
	B0	Flat bracket mounted in 2" fixed pipe with install components and fasteners, SS316
	d	ExdbIIC T6...T4 Gb, NEPSI
Anti-explosion	i	ExialIIC T4 Ga, NEPSI
	NA	Unavailable
Special treatment	T	Degreasing (removing oil and grease from product surface)
	NA	Unavailable
Accuracy	1	Ultra accuracy $\pm 0.1\%$ (unavailable if capillary length $\geq 6 \text{ m} * 2$; unavailable if range $\leq 10 \text{ kPa}$)
	NA	Standard $\pm 0.2\%$

Additional Options

Flushing ring	SS316, clamping type
Extended warranty	2-year warranty
	3-year warranty
Subsidiary requirements	English stainless steel nameplate
	Russian stainless steel nameplate
	Anti-explosion cable gland, SS316, 1/2 NPT, cable diameter 6 to 8 mm, optional 11 to 17 mm
	Anti-explosion cable gland, SS316, M20 x 1.5, cable diameter 6 to 8 mm, optional 11 to 17 mm
	Nickel plated brass cable gland, 1/2 NPT, cable diameter 6 to 8 mm, optional 11 to 17 mm
	Nickel plated brass cable gland, M20 x 1.5, cable diameter 6 to 8 mm, optional 11 to 17 mm
Report	Calibration certificate
	SIL
	ATEX Exd
	ATEX Exia
	Certificate of Compliance
Special certifications	IEC Exd
	IEC Exia
	NACE
	PMI certificate
	EN10204
Alarm output	NAMUR NE43 analog output, high alarm, 20.8 mA
	NAMUR NE43 analog output, low alarm, 3.8 mA
	Unavailable

Model Code

DN65/DN80 Dual Flange

Model Type	Code	Description
AT5010-		DN65/DN80 dual flange level transmitter (accuracy ±0.2% FS)
Type	YDP	Monocrystalline silicon sensor
Range	3	-40 to 40 kPa (minimum range 0 to 7 kPa)
	4	-100 to 250 kPa
	5	-0.1 to 1 MPa
Electrical connection & housing	E1	Aluminum housing, polyester coating, 1/2 NPT F cable entry
	E2	Aluminum housing, polyester coating, M20 × 1.5 F cable entry
	E3	SS316 housing, 1/2 NPT F cable entry
	E4	SS316 housing, M20 × 1.5 F cable entry
Output signal	S	24 V DC loop power supply, 4–20 mA, HART 7, two-wire
Display mode	M5	LCD with backlight display module, physical buttons
Capillary type	P	PVC sheath and armored SS304
Isolation fluid	S	Normal temperature silicone oil, temperature range -40 to 205°C
	H	High temperature silicone oil, temperature range 0 to 315°C
Process flange material	S6	SS316
	A	SS316L
	C	Tantalum (range ≥ 10 kPa)
Isolation diaphragm	H	Hastelloy C-276 (range ≥ 10 kPa)
	P	SS316 and PTFE coating (range ≥ 50 kPa)
	F	SS316 and PFA coating (range ≥ 50 kPa)
	G	SS316L gold plated (range ≥ 10 kPa)
Process connection	H30	HG/T 20592-2009 DN80 RF, PN10 to PN16
	H31	HG/T 20592-2009 DN80 RF, PN25 to PN40
	H32	HG/T 20592-2009 DN80 RF, PN63
	HD0	HG/T 20592-2009 DN65 RF, PN10 to PN16
	HD1	HG/T 20592-2009 DN65 RF, PN25 to PN40
	HD2	HG/T 20592-2009 DN65 RF, PN63
	X	Optional flange
Diaphragm extension	D	No diaphragm extension
	D1	Length 50 mm; DN80: OD 66 mm, DN65: OD 56 mm
	D2	Length 100 mm; DN80: OD 66 mm, DN65: OD 56 mm
	D3	Length 150 mm; DN80: OD 66 mm, DN65: OD 56 mm

H-end capillary	00	Capillary-free
	01	1 m SS316 capillary tube, PVC sheath and armored SS304
	02	2 m SS316 capillary tube, PVC sheath and armored SS304
	03	3 m SS316 capillary tube, PVC sheath and armored SS304
	04	4 m SS316 capillary tube, PVC sheath and armored SS304
	05	5 m SS316 capillary tube, PVC sheath and armored SS304
	06	6 m SS316 capillary tube, PVC sheath and armored SS304
	07	7 m SS316 capillary tube, PVC sheath and armored SS304
	08	8 m SS316 capillary tube, PVC sheath and armored SS304
	09	9 m SS316 capillary tube, PVC sheath and armored SS304
	10	10 m SS316 capillary tube, PVC sheath and armored SS304
L-end capillary	00	Capillary-free
	01	1 m SS316 capillary tube, PVC sheath and armored SS304
	02	2 m SS316 capillary tube, PVC sheath and armored SS304
	03	3 m SS316 capillary tube, PVC sheath and armored SS304
	04	4 m SS316 capillary tube, PVC sheath and armored SS304
	05	5 m SS316 capillary tube, PVC sheath and armored SS304
	06	6 m SS316 capillary tube, PVC sheath and armored SS304
	07	7 m SS316 capillary tube, PVC sheath and armored SS304
	08	8 m SS316 capillary tube, PVC sheath and armored SS304
	09	9 m SS316 capillary tube, PVC sheath and armored SS304
	10	10 m SS316 capillary tube, PVC sheath and armored SS304
Mounting bracket	B1	Bend bracket mounted in 2" fixed pipe with install components and fasteners, carbon steel
	B2	Bend bracket mounted in backboard with install components and fasteners, carbon steel
	B3	Flat bracket mounted in 2" fixed pipe with install components and fasteners, carbon steel
	B7	Bend bracket mounted in 2" fixed pipe with install components and fasteners, SS304
	B8	Flat bracket mounted in 2" fixed pipe with install components and fasteners, SS304
	B9	Bend bracket mounted in 2" fixed pipe with install components and fasteners, SS316
	B0	Flat bracket mounted in 2" fixed pipe with install components and fasteners, SS316
	NA	Unavailable
Anti-explosion	d	ExdbIIC T6...T4 Gb, NEPSI
	i	ExialIIC T4 Ga, NEPSI
	NA	Unavailable
Special treatment	T	Degreasing (removing oil and grease from product surface)
	NA	Unavailable
Accuracy	1	Ultra accuracy $\pm 0.1\%$ (unavailable if capillary length $\geq 6 \text{ m} * 2$; unavailable if range $\leq 10 \text{ kPa}$)
	NA	Standard $\pm 0.2\%$

Additional Options

Flushing ring	SS316, clamping type
Extended warranty	2-year warranty
	3-year warranty
Subsidiary requirements	English stainless steel nameplate
	Russian stainless steel nameplate
	Anti-explosion cable gland, SS316, 1/2 NPT, cable diameter 6 to 8 mm, optional 11 to 17 mm
	Anti-explosion cable gland, SS316, M20 x 1.5, cable diameter 6 to 8 mm, optional 11 to 17 mm
	Nickel plated brass cable gland, 1/2 NPT, cable diameter 6 to 8 mm, optional 11 to 17 mm
	Nickel plated brass cable gland, M20 x 1.5, cable diameter 6 to 8 mm, optional 11 to 17 mm
Report	Calibration certificate
	SIL
	ATEX Exd
	ATEX Exia
	Certificate of Compliance
Special certifications	IEC Exd
	IEC Exia
	NACE
	PMI certificate
	EN10204
Alarm output	NAMUR NE43 analog output, high alarm, 20.8 mA
	NAMUR NE43 analog output, low alarm, 3.8 mA
	Unavailable

Certifications

Name	Description
NEPSI	NEPSI explosive-proof Ex db IIC T4...T6 Gb Applicable standard: GB/T 3836.1-2021, GB/T 3836.2-2021,GB/T 3836.31-2021
	NEPSI dust explosion prevention Ex tb IIIC T80°C ...T130°C Db Applicable standard: GB/T 3836.1-2021, GB/T 3836.2-2021,GB/T 3836.31-2021
	NEPSI intrinsically safe Ex ia IIC T4 Ga Applicable standard: GB/T 3836.1-2021, GB/T 3836.4-2021,GB/T 3836.20-2010
NACE	NACE Component & Brinell Hardness Applicable standard: NACE MR0175
	NACE Component & Vickers Hardness Applicable standard: NACE MR0175
	NACE Hydrogen-Induced Cracking (HIC) Applicable standard: NACE MR0175, NB/T 47010-2017
SIL	NACE Sulfide Stress Corrosion Cracking (SSC) Applicable standard: NACE MR0175, NB/T 47010-2017
	The measuring instrument can be used as a pressure monitoring system, up to SIL2/3
	Measurement system can meet HART7, equipment can be used with the certified equipment of other suppliers (interoperability)
Modbus	Modbus- RTU/RS485
CE	Certificate of Compliance, EN IEC 61326-1:2021, electromagnetic compatibility directive 2014/30/EU
ATEX	ATEX Exd, ATEX Exia
IEC Ex	IEC Exd, IEC Exia
PMI	PMI verification and certificate
EN	EN10204

Appendix Table of Anti-corrosion Properties of Commonly Used Metal Materials

A - Excellent B - Possible C - Poor x - Unavailable

Type	Medium Name	Concentration/%	Temperature/°C	316/316L	Hastelloy C	Tantalum
Sulfuric acid	Sulfuric acid	5	25	A	A	A
		100	C	B	A	
		10	25	C	A	A
		00	C	C	A	
		20	25	B	A	A
		100	C	C	A	
		60	25	C	A	A
		100	x	C	A	
		80	25	A	A	A
		00	C	C	B	
	Fuming sulfuric acid	98	25	B	A	A
		100	x	A	A	
		25	C	B	C	
		100	C	B	C	
Inorganic acid	Carbamide	10	25	A	B	A
		100	A	B	A	
		30	25	A	B	A
		100	B	C	A	
		68	25	A	A	A
		100	x	x	A	
	Hydrochloric acid	Fuming	25	x	B	A
		5	25	C	B	A
		100	C	C	A	
		10	25	C	B	A
		100	C	C	A	
Sodium pyrophosphate	Sodium pyrophosphate	20	25	C	B	A
		100	C	C	A	
		30	25	A	A	A
		100	B	A	A	
		50	25	A	A	A
		100	B	A	A	
		70	25	C	A	A
		100	C	B	A	
	Sodium phosphate	85	25	C	A	A
		100	C	C	A	
		90	25	C	B	A
		100	C	B	A	

Type	Medium Name	Concentration/%	Temperature/°C	316/316L	Hastelloy C	Tantalum
Hydrofluoric acid	5	25	C	C	C	
		100	C	C	C	
	40	25	C	A	x	
		100	C	C	x	
	90	25	C	B	x	
		100	C	x	x	
	< 60	25	C	x	A	
		100	C	x	A	
Hydrocyanic acid	25	25	B	B	A	
		100	B	B	A	
	100	25	B	B	A	
		100	B	B	A	
Argon-sulfuric acid	10	25	B	A	A	
		100	C	x	A	
	100	25	A	A	A	
		100	A	x	A	
Guanosine	< 50	25	C	B	A	
		100	C	B	A	
	> 50	25	C	B	A	
		100	C	x	A	
Chromate	10	25	C	B	A	
		100	C	x	A	
	< 50	25	C	A	A	
		100	C	x	A	
Chlorate	10	25	C	B	A	
		100	C	x	A	
	> 50	25	C	B	A	
		100	C	x	A	
Hypochlorous acid	10	25	C	A	A	
		100	C	x	A	
	0 to 100	25	A	A	A	
		100	A	A	A	
Boric acid	10	25	C	B	A	
		100	C	x	A	
	100	25	C	x	A	
		100	C	x	A	
Chlorosulfonic acid	20	25	B	A	A	
		100	B	A	A	
	20	25	x	A	A	
		100	x	x	A	
Aqua regia	20	25	C	C	A	
		100	C	C	x	

Type	Medium Name	Concentration/%	Temperature/°C	316/316L	Hastelloy C	Tantalum
Carboxylic acid	10	25	x	A	A	
		100	x	A	A	
	100	25	x	A	A	
		100	x	A	A	
Acetic acid	< 100	25	A	A	A	
		100	A	A	A	
	10	25	B	A	A	
		100	B	A	A	
Propanoic acid	60 to 90	25	B	A	A	
		100	B	A	A	
Butyric acid		25	A	A	A	
		100	A	A	A	
Butenoic acid		25	B	B	A	
		100	B	B	A	
Stearate		25	A	A	A	
		100	A	A	A	
Fatty acids		25	A	A	A	
		100	A	A	A	
Glycolic acid C2H4O3		25	B	B	A	
		100	B	B	A	
Pyromellitate	10	25	A	B	A	
		100	A	x	A	
	100	25	B	A	A	
		100	x	x	A	
Monochloroacetic acid	< 70	25	C	B	A	
		100	C	B	A	
	100	25	B	A	A	
		100	x	A	A	
Lactic acid	< 20	25	A	B	A	
		100	B	B	A	
	> 70	25	A	B	A	
		100	B	B	A	
Oxalic acid C2H2O4	10	25	B	B	A	
		100	C	B	B	
Succinic acid	< 50	25	B	B	A	
		100	B	B	A	
	100	25	B	B	A	
		100	B	B	A	
Benzoic acid C6H5COOH	< 70	25	B	A	A	
		100	B	A	A	
Citrate	0 to 100	25	A	A	A	
		100	A	A	A	
Salicylate		25	B	B	A	
		100	B	x	A	
Mminobenzoic acid		25	B	B	A	
		100	B	B	A	
Benzenesulfonic acid	0 to 100	25	B	B	A	
		100	x	B	A	
Naphthalene sulfonic acid	100	25	B	A	C	
		100	x	A	C	

Type	Medium Name	Concentration/%	Temperature/°C	316/316L	Hastelloy C	Tantalum
Bases and hydroxides	Caustic soda	10	25	A	A	C
			100	A	A	C
		20	25	A	B	A
			100	A	B	B
		40	25	A	B	C
			100	A	B	C
	70	25	A	A	C	
			100	B	A	C
	potassium hydroxide	< 60	25	A	B	C
			100	A	B	C
		100	25	A	B	C
			100	A	x	C
	Ammonium hydroxide	0 to 100	25	A	A	x
			100	B	A	x
	slaked lime	< 50	25	A	A	A
			100	A	A	A
	magnesium hydroxide	100	25	A	A	A
			100	A	A	A
	Lithium hydroxide	10	25	B	B	x
			100	B	B	x
	Aluminum hydroxide	10	25	A	B	A
			100	A	B	A
	Ammonium sulfate	< 40	25	B	B	A
			100	B	B	A
	Ammonium nitrate	10	25	A	B	A
			100	B	B	A
	Ammonium carbonate	100	25	B	B	A
			100	B	B	A
	Ammonium chloride	< 40	25	A	A	A
			100	A	A	A
		100	25	x	B	A
			100	x	B	A
	Ammonium acetate	0 to 100	25	A	A	x
			100	A	A	x
Salt	Ammonium sulfite	< 30	25	B	B	A
			100	B	B	A
	Sodium sulfate	< 40	25	x	x	A
			100	x	B	A
	Soda	10	25	A	A	A
			100	A	A	A
		100	25	B	B	A
			100	B	B	A
	Sodium hypochlorite (hypochlorite NaOH)	< 20	25	C	B	A
			100	C	B	A
	Sodium chloride	< 30	25	B	B	A
			100	C	B	A

Type	Medium Name	Concentration/%	Temperature/°C	316/316L	Hastelloy C	Tantalum
Sodium bicarbonate		< 30	25 100	A C	B B	A A
sodium nitrite			25 100	A A	A A	A A
sodium acetate (chemistry)		< 60	25 100	A A	B B	A A
Sodium benzoate, E211 (a food preservative)		< 60	25 100	B	B	B
Potassium sulfate		< 20	25 100	A A	A A	A A
Potassium nitrate		< 100	25 00	B x	B x	A A
Potassium carbonate		< 50	25 100	B B	B B	x C
Potassium perchlorate		10	25 100	B B	B B	x x
Dicalcium phosphate		< 30	25 100	A A	B B	A A
Potassium bromide		< 30	25 100	B B	B B	A A
Potassium chromate		< 30	25 100	B B	A A	A A
Potassium permanganate		10	25 100	B B	B B	X x
Aluminum sulfate		< 50	25 100	A A	A A	A A
Aluminum chloride		0 to 100	25 100	B x	A A	A A
Magnesium sulfate		< 30	25 100	A A	A A	A A
Magnesium nitrate			25 100	B B	B B	A A
Magnesium chloride		< 40	25 100	B B	A A	A A
Calcium sulfate		10	25 100	A A	B B	A A
Talc		100	25 100	B x	B B	A A
Calcium phosphate		10	25 100	B B	B B	A A
Calcium chloride		< 80	25 100	B B	A A	A A
Ferric chloride		30	25 100	C C	B C	A A

Type	Medium Name	Concentration/%	Temperature/°C	316/316L	Hastelloy C	Tantalum
Chlorine	Dry air	25	B	A	A	
		100	B	B	A	
	Wet air	25	C	B	A	
		100	C	C	A	
Chlorine water	Saturated	RT	C	B	A	
Bromine	Dry	25	C	A	A	
		100	C	B	A	
	Wet	25	×	A	A	
		100	×	A	A	
Phosphorus		25	A	A	×	
		100	A	×	×	
Sodium		270	A	A	A	
Hydrogen chloride	100	25	A	A	A	
		100	A	A	A	
Sulfur dioxide	10	25	A	A	×	
		100	A	A	×	
	90 to 100	25	B	B	×	
		100	B	B	×	
Phosphorous trichloride	Dry	25	A	A	A	
		100	×	A	A	
Arsenic trichloride	10	25	C	B	×	
		100	C	B	×	
Sodium peroxide Na2O2	10	25	A	B	×	
		100	A	B	×	
Sulfur dichloride	Wet		A	×	A	
Hydrogen sulfide	Wet	25	A	×	A	
Methyl alcohol		25	A	A	A	
		100	A	A	A	
Ethanol		25	A	A	A	
		100	A	A	A	
Formaldehyde	< 70	25	A	B	A	
		100	A	B	A	
Acetaldehyde		25	A	A	A	
		100	A	×	A	
(ii) Methyl ether		25	B	B	A	
		100	B	B	A	
(ii) Ether		25	A	B	A	
		100	A	B	A	
Acetone		25	A	A	A	
		100	A	A	A	
Butanone	< 100	25	B	B	A	
		100	B	B	A	
Formic acid methyl ester	< 30	25	B	B	B	
		100	B	B	B	
Ethyl acetate		25	A	B	A	
		100	B	B	A	

Elements, gases and their inorganic compounds

Alcohols, aldehydes, ethers, ketones, lipids

Type	Medium Name	Concentration/%	Temperature/°C	316/316L	Hastelloy C	Tantalum
Hydrocarbons and petroleum products	Methane CH4		25	A	A	A
			100	A	A	A
	Benzene		25	B	B	A
			100	B	B	A
	Toluene		25	A	A	A
			100	A	A	A
	Phenol	90	25	B	A	A
			100	B	A	A
	Acrylonitrile		25	A	A	A
			100	A	A	A
Others	Urea (NH2)2CO	< 50	25	B	B	A
			100	B	B	A
	Nitroglycerine		25	A	A	A
			100	A	×	A
	Nitrotoluene		25	A	B	A
			100	A	B	A
	Sea water		25	A	A	A
			80	A	A	A
	Salted water		25	B	A	A
			80	B	A	A
Mixers	35%HCL +65%HN03		25	×	×	A
	90%H2S04 +10%HN03		25	×	×	A
	70%H2S04 +30%HN03		RT	×	×	A
	50%H2S04 +50%HN03		RT	×	×	A



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