

CATALOG

Pressure Transmitter AT5020



- SIL2/3 certification
- Accuracy up to $\pm 0.05\%$ FS
- 10-year stability of $\pm 0.2\%$ of URL
- -100 kPa to 40 MPa (minimum range 0 to 1kPa)
- 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.
- Optional gauge pressure, absolute pressure
- Convenient and user-friendly, wide options in forms and material
- Precision in measurement
- Exploration in our range of state-of-the-art pressure transmitters
- Features, specification and applications covered in detail
- **SIL, NACE, NEPSI, ATEX, CE, PMI, EN10204**

Contents

01 AT5020 Pressure Transmitter

01 Product Overview

02 Model Code

04 AT5020 Single Flange Pressure Transmitter

04 Product Overview

05 DN20/DN25/DN32 Single Flange Model Code

07 DN40/DN50 Single Flange Model Code

09 DN65/DN80 Single Flange Model Code

11 Certifications

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

Product Overview

Pressure Transmitter
AT5020

AT5020 monocrystalline silicon pressure transmitter is a high-performance pressure transmitter with internationally leading 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 AT5020 monocrystalline silicon pressure transmitter can handle complex chemical and mechanical loads, while providing strong electromagnetic interference resistance for demanding industrial environment applications.



Main Parameters

- Monocrystalline silicon gauge pressure range: -100 kPa to 40 MPa (minimum range 0 to 1 kPa).
- Monocrystalline silicon absolute pressure range: 0 to 10 MPa (minimum range 0 to 20 kPa).
- Output signal: 4–20 mA and HART7, Modbus-RTU/RS485 and others.
- Reference accuracy: $\pm 0.05\%$ FS. See specifications for details.

Measuring Medium

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

Applications

Pressure, level

Model Code

Pressure Transmitter

Model Type	Code	Description
AT5020-		Pressure transmitter ($\pm 0.05\%$ FS accuracy)
Type	TG	Monocrystalline silicon sensor (gauge pressure, -100 kPa to 40 MPa)
	TA	Monocrystalline silicon sensor (absolute pressure, 0 to 10 MPa)
Range	2	-6 to 6 kPa (gauge pressure: minimum range 0 to 1 kPa, $\pm 0.5\%$ FS accuracy for 0.5 kPa and below)
	3	-40 to 40 kPa (absolute pressure: 0 to 40 kPa with the minimum range of 0 to 20 kPa)
	4	-100 to 250 kPa
	5	-0.1 to 1 MPa
	6	-0.1 to 3 MPa
	7	-0.1 to 10 MPa
	8	0 to 40 MPa
Isolation diaphragms	SS	SS316L, silicon oil
	HS	Hastelloy C, silicon oil
	GS	SS316L, gold plated, silicone oil
Sealing method	W	Stainless steel welded seals
Electrical connection & housing	-E1	Aluminum housing, polyester coating, 1/2 NPT F, cable entry
	-E2	Aluminum housing, polyester coating, M20 $\times$ 1.5 F, cable entry
	-E3	SS316 housing, 1/2 NPT F, cable entry
	-E4	SS316 housing, M20 $\times$ 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
Process connection	-S6	SS316 (excluding flange material)
Process connectors	M1	M20 $\times$ 1.5 M with $\Phi 3$ impulse hole, GB/T193-2003, SS316
	G1	G1/2 M with $\Phi 3$ impulse hole, EN837, SS316
	R1	1/2-14 NPT M with $\Phi 3$ impulse hole, ANSI/ASME B1.20.1, SS316
	H10	HG/T 20592-2009 DN25 RF, PN10 to PN40 (straight thread and flange) SS304
	H20	HG/T 20592-2009 DN50 RF, PN10 to PN40 (straight thread and flange) SS304
	H30	HG/T 20592-2009 DN80 RF, PN10 (straight thread and flange) SS304
	H31	HG/T 20592-2009 DN80 RF, PN16 to PN40 (straight thread and flange) SS304
	X	Optional flange
Mounting bracket	-B4	U and L bracket, 2" pipe, carbon steel
	-B5	U and L bracket, 2" pipe, SS304
	-B6	U and L bracket, 2" pipe, SS316
	NA	Unavailable

Process connection accessory	Z1	M20×1.5 F with impulse pipe $\Phi 14 \times 2 \times 30$ mm, SS304
	RG	Syphon, M20 × 1.5 F to M20 × 1.5 M, SS304, applicable medium temperature -40 to 150°C
	RP	Heat sink, M20 × 1.5 F to M20 × 1.5 M, SS304, applicable medium temperature -40 to 150°C
	LP	Extra-long heat sink, two RP radiators stacked and connected in series, applicable medium temperature -40 to 300°C
	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 0 to 1 kPa and 0 to 40 MPa)
	NA	Standard $\pm 0.075\%$ ($\pm 0.1\%$ FS accuracy for 0 to 1 kPa and 0 to 40 MPa)

Additional Options

Extended warranty	2-year warranty
	3-year warranty
Value manifold	Two-way manifold
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
	Nickel plated brass cable gland, M20 × 1.5, cable diameter 6 to 8 mm, optional 11 to 17 mm
Report	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

Product Overview

Single Flange Pressure Transmitter AT5020

With internationally leading monocrystalline silicon sensor technology and patented packaging process, AT5020 single flange pressure 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 AT5020 single flange pressure transmitter can handle complex chemical and mechanical loads while providing strong electromagnetic interference resistance for demanding industrial environment applications.



Main Parameters

- Monocrystalline silicon gauge pressure range: -100 kPa to 25 MPa (minimum range 0 to 20 kPa).
- Monocrystalline silicon absolute pressure range: 0 to 10 MPa (minimum range 0 to 20 kPa).
- Output signal: 4–20 mA and HART7, Modbus -RTU/RS485 and others.
- Reference accuracy: $\pm 0.2\%$ FS upper range limit, $\pm 0.1\%$ FS upper range limit (optional). See specifications for details.

Measuring Medium

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

Applications

Pressure, level

Model Code

DN20/DN25/DN32 Single Flange

Model Type	Code	Description
AT5020-		DN20/DN25/DN32 single flange pressure transmitter ($\pm 0.2\%$ FS accuracy)
Type	YTG	Monocrystalline silicon sensor (gauge pressure, -100 kPa to 25 MPa)
	YTA	Monocrystalline silicon sensor (absolute pressure, 0 kPa to 10 MPa)
Range	3	-40 to 40 kPa (minimum range 0 to 20 kPa for both gauge and absolute pressure)
	4	-100 to 250 kPa
	5	-0.1 to 1 MPa
	6	-0.1 to 3 MPa
	7	-0.1 to 10 MPa
	8	0 to 25 MPa
Electrical connection & housing	E1	Aluminum housing, polyester coating, 1/2 NPT F, cable entry
	E2	Aluminum housing, polyester coating, M20 $\times$ 1.5 F, cable entry
	E3	SS316 housing, 1/2 NPT F, cable entry
	E4	SS316 housing, M20 $\times$ 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
Process flange	-S6	SS316
Connection type	SC	Standard connection, applicable medium temperature -25 to 85°C
	HC	Heat sink connection, applicable for medium temperature -40 to 150°C
	LC	Extra-long heat sink connection, applicable medium temperature -40 to 300°C
Isolation fluid	S	Normal temperature silicone oil, temperature range -40 to 205°C
	H	High temperature silicone oil, temperature range 0 to 315°C
Isolation diaphragms	A	SS316L
	C	Tantalum (range ≥ 50 kPa)
	H	Hastelloy C (range ≥ 50 kPa)
	P	SS316 and PTFE coating (range ≥ 100 kPa, not available with capillary tube)
	F	SS316 and PFA coating (range ≥ 100 kPa, not available with capillary tube)
	G	SS316L gold plated (range ≥ 50 kPa)
Process connection	H10	HG/T 20592-2009 DN25 RF, PN10 to PN40
	H11	HG/T 20592-2009 DN25 RF, PN63
	H12	HG/T 20592-2009 DN25 RF, PN100
	H13	HG/T 20592-2009 DN25 RF, PN160
	H14	ASME B16.5 1" RF, Class1500

Process connection	HA0	HG/T 20592-2009 DN20 RF, PN10 to PN40 (range ≥ 40 kPa)
	HA1	HG/T 20592-2009 DN20 RF, PN63 (range ≥ 40 kPa)
	HA2	HG/T 20592-2009 DN20 RF, PN100 (range ≥ 40 kPa)
	HA3	HG/T 20592-2009 DN20 RF, PN160 (range ≥ 40 kPa)
	HA4	ASME B16.5 3/4" RF, Class1500 (range ≥ 40 kPa)
	HB0	HG/T 20592-2009 DN32 RF, PN10 to PN40
	HB1	HG/T 20592-2009 DN32 RF, PN63
	HB2	HG/T 20592-2009 DN32 RF, PN100
	HB3	HG/T 20592-2009 DN32 RF, PN160
	HB4	ASME B16.5 1¼" RF, Class1500
	X	Optional flange
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
Mounting bracket	B4	U and L bracket, 2" pipe, carbon steel
	B5	U and L bracket, 2" pipe, SS304 steel
	B6	U and L bracket, 2" pipe, SS316 steel
	NA	Without bracket (optional when no capillary pipe)
Capillary	NA	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
Accuracy	1	Ultra accuracy $\pm 0.1\%$ (unavailable if range ≤ 20 kPa, unavailable for DN20 flange)
	NA	Standard $\pm 0.2\%$

Model Code

DN40/DN50 Single Flange

Model Type	Code	Description
AT5020-		DN40/DN50 single flange pressure transmitter ($\pm 0.2\%$ FS accuracy)
Type	YTG	Monocrystalline silicon sensor (gauge pressure, -100 kPa to 25 MPa)
	YTA	Monocrystalline silicon sensor (absolute pressure, 0 kPa to 10 MPa)
Range	3	-40 to 40 kPa (gauge pressure: minimum range 0 to 7 kPa; absolute pressure: minimum range 0 to 20 kPa)
	4	-100 to 250 kPa
	5	-0.1 to 1 MPa
	6	-0.1 to 3 MPa
	7	-0.1 to 10 MPa
	8	0 to 25 MPa
Electrical connection & housing	E1	Aluminum housing, polyester coating, 1/2 NPT F, cable entry
	E2	Aluminum housing, polyester coating, M20 $\times$ 1.5 F, cable entry
	E3	SS316 housing, 1/2 NPT F, cable entry
	E4	SS316 housing, M20 $\times$ 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
Process flange	-S6	SS316
Connection type	SC	Standard connection, applicable medium temperature -25 to 85°C
	HC	Heat sink connection, applicable for medium temperature -40 to 150°C
	LC	Extra-long heat sink connection, applicable medium temperature -40 to 200°C
Isolation fluid	S	Normal temperature silicone oil, temperature range -40 to 205°C
	H	High temperature silicone oil, temperature range 0 to 315°C
Isolation diaphragms	A	SS316L
	C	Tantalum (range ≥ 10 kPa)
	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
	H23	HG/T 20592-2009 DN50 RF, PN160
	H24	ASME B16.5 2" RF, Class1500
	HC0	HG/T 20592-2009 DN40 RF, PN10 to PN40
	HC1	HG/T 20592-2009 DN40 RF, PN63

Process connection	HC2	HG/T 20592-2009 DN40 RF, PN100
	HC3	HG/T 20592-2009 DN40 RF, PN160
	HC4	ASME B16.5 1½" RF, Class1500
	X	Optional flange
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
Mounting bracket	B4	U and L bracket, 2" pipe, carbon steel
	B5	U and L bracket, 2" pipe, SS304 steel
	B6	U and L bracket, 2" pipe, SS316 steel
	NA	Without bracket (optional when no capillary pipe)
Capillary	NA	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
Accuracy	1	Ultra accuracy $\pm 0.1\%$ (unavailable if range ≤ 10 kPa, unavailable if capillary length ≥ 6 m)
	NA	Standard $\pm 0.2\%$

Model Code

DN65/DN80 Single Flange

Model Type	Code	Description
AT5020-		DN65/DN80 single flange pressure transmitter ($\pm 0.2\%$ FS accuracy)
Type	YTG	Monocrystalline silicon sensor (gauge pressure, -100 kPa to 10 MPa)
	YTA	Monocrystalline silicon sensor (absolute pressure, 0 kPa to 10 MPa)
Range	3	-40 to 40 kPa (gauge pressure: minimum range 0 to 7 kPa; absolute pressure: minimum range 0 to 20 kPa)
	4	-100 to 250 kPa
	5	-0.1 to 1 MPa
	6	-0.1 to 3 MPa
	7	-0.1 to 10 MPa
Electrical connection & housing	E1	Aluminum housing, polyester coating, 1/2 NPT F, cable entry
	E2	Aluminum housing, polyester coating, M20 $\times$ 1.5 F, cable entry
	E3	SS316 housing, 1/2 NPT F, cable entry
	E4	SS316 housing, M20 $\times$ 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
Process flange	-S6	SS316
Connection type	SC	Standard connection, applicable medium temperature -25 to 85°C
	HC	Heat sink connection, applicable for medium temperature -40 to 150°C
	LC	Extra-long heat sink connection, applicable medium temperature -40 to 200°C
Isolation fluid	S	Normal temperature silicone oil, temperature range -40 to 205°C
	H	High temperature silicone oil, temperature range 0 to 315°C
Isolation diaphragms	A	SS316L
	C	Tantalum (range ≥ 10 kPa)
	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
	H33	HG/T 20592-2009 DN80 RF, PN100
	H34	HG/T 20592-2009 DN80 RF, PN160
	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
	HD3	HG/T 20592-2009 DN65 RF, PN100
	HD4	HG/T 20592-2009 DN65 RF, PN160
	X	Optional flange
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
Mounting bracket	B4	U and L bracket, 2" pipe, carbon steel
	B5	U and L bracket, 2" pipe, SS304 steel
	B6	U and L bracket, 2" pipe, SS316 steel
	NA	Without bracket (optional when no capillary pipe)
Capillary	NA	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
Accuracy	1	Ultra accuracy $\pm 0.1\%$ (unavailable if range ≤ 10 kPa, unavailable if capillary length ≥ 6 m)
	NA	Standard $\pm 0.2\%$

Additional Options

Extended warranty	2-year warranty
	3-year warranty
Flushing ring	SS316, clamping type
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 $\times$ 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 $\times$ 1.5, cable diameter 6 to 8 mm, optional 11 to 17 mm
Report	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

Certifications

Name	Description
NEPSI	NEPSI explosive-proof Ex db IIC T4...T6 Gb Application 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 Db Application standard: GB/T 3836.1-2021, GB/T 3836.2-2021, GB/T 3836.31-2021
	NEPSI intrinsically safe Ex ia IIC T4 Ga Application standard: GB/T 3836.1-2021, GB/T 3836.4-2021, GB/T 3836.20-2010
NACE	NACE Component & Brinell Hardness Application standard: NACE MR0175
	NACE Component & Vickers Hardness Application standard: NACE MR0175
	NACE Hydrogen-Induced Cracking (HIC) Application standard: NACE MR0175, NB/T 47010-2017
	NACE Sulfide Stress Corrosion Cracking (SSC) Application standard: NACE MR0175, NB/T 47010-2017
SIL	The measuring instrument can be used as a pressure monitoring system, up to SIL2/3
HART	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	SS316/SS316L	Hastelloy C	Tantalum
Inorganic acid	Sulfuric acid	5	25	A	A	A
			100	C	B	A
		10	25	C	A	A
			100	C	C	A
		20	25	B	A	A
			100	C	C	A
		60	25	C	A	A
			100	×	C	A
		80	25	A	A	A
			100	C	C	B
		98	25	B	A	A
			100	×	A	A
	Fuming sulfuric acid	25	C	B	C	
		100	C	B	C	
	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	×	×	A
	Fuming	25	×	×	A	
	Hydrochloric acid	5	25	C	B	A
			100	C	C	A
		10	25	C	B	A
			100	C	C	A
		20	25	C	B	A
			100	C	C	A
		35	25	C	B	A
			100	C	C	A
	Sodium pyrophosphate	20	25	A	A	A
			100	A	A	A
		30	25	A	A	A
			100	B	A	A
		50	25	A	A	A
			100	B	A	A
		70	25	A	A	A
			100	C	B	A
		85	25	A	A	A
			100	C	C	A
		90	25	C	B	A
			100	C	B	A
	Hydrofluoric acid	5	25	C	C	C
			100	C	C	C
		40	25	C	A	×
			100	C	C	×
		90	25	C	B	×
			100	C	×	×

Type	Medium Name	Concentration/%	Temperature/°C	SS316/SS316L	Hastelloy C	Tantalum
Inorganic acid	Hydrobromic acid	<60	25	C	×	A
			100	C	×	A
	Hydrocyanic acid		25	B	B	A
			100	B	B	A
	Argon-sulfuric acid		25	B	B	A
			100	B	B	A
	Guanosine	10	25	B	A	A
			100	C	×	A
		100	25	A	A	A
			100	A	×	A
	Chromate	<50	25	C	B	A
			100	C	B	A
		>50	25	C	B	A
			100	C	×	A
	Chlorate	10	25	C	B	A
			100	C	×	A
	Hypochlorous acid		25	C	A	A
			100	C	×	A
	Boric acid	0-100	25	A	A	A
			100	A	A	A
	Chlorosulfonic acid	10	25	C	B	A
			100	C	×	A
		100	25	B	A	A
			100	B	A	A
	Chrome water	20	25	×	A	A
			100	×	×	A
	Aqua regia		25	C	C	A
			100	C	C	×
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	×	C
	Ammonium hydroxide	0-100	25	A	A	×
			100	B	A	×
	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	×
			100	B	B	×
	Aluminum hydroxide	10	25	A	B	A
			100	A	B	A

Type	Medium Name	Concentration/%	Temperature/°C	SS316/SS316L	Hastelloy C	Tantalum
Organic acid	Carboxylic acid	10	25	×	A	A
			100	×	A	A
		100	25	×	A	A
			100	×	A	A
	Acetic acid	<100	25	A	A	A
			100	A	A	A
		10	25	B	A	A
			100	B	A	A
	Propanoic acid	60-90	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 C ₂ H ₄ O ₃		25	B	B	A
			100	B	B	A
	Pyromellitate	10	25	A	B	A
			100	A	×	A
		100	25	B	A	A
			100	×	×	A
	Monochloroacetic acid	<70	25	C	B	A
			100	C	B	A
		100	25	B	A	A
			100	×	A	A
	Lactic acid	<20	25	A	B	A
			100	B	B	A
		>70	25	A	B	A
			100	B	B	A
	Oxalic acid C ₂ H ₂ O ₄	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 C ₆ H ₅ COOH	<70	25	B	A	A
			100	B	A	A
	Citrate	0-100	25	A	A	A
			100	A	A	A
	Salicylate		25	B	B	A
			100	B	×	A
	Mminobenzoic acid		25	B	B	A
			100	B	B	A
	Benzenesulfonic acid	0-100	25	B	B	A
			100	×	B	A
	Naphthalene sulfonic acid	100	25	B	A	C
			100	×	A	C

Type	Medium Name	Concentration/%	Temperature/°C	SS316/SS316L	Hastelloy C	Tantalum
Salt	Ammonium sulfate	<40	25	B	B	A
			100	B	B	A
	Ammonium nitrate	10	25	A	B	A
			100	A	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	0-100	25	A	A	x
			100	A	A	x
	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
	Sodium bicarbonate	<30	25	A	B	A
			100	C	B	A
	sodium nitrite		25	A	A	A
			100	A	A	A
	sodium acetate (chemistry)	<60	25	A	B	A
			100	A	B	A
	Sodium benzoate, E211 (a food preservative)	<60	25	B	B	B
			100	B	B	B
	Potassium sulfate	<20	25	A	A	A
			100	A	A	A
	Potassium nitrate	<100	25	B	B	A
			100	x	x	A
	Potassium carbonate	<50	25	B	B	x
			100	B	B	C
	Potassium perchlorate	10	25	B	B	x
			100	B	B	x
	Dicalcium phosphate	<30	25	A	B	A
			100	A	B	A
	Potassium bromide	<30	25	B	B	A
			100	B	B	A
	Potassium chromate	<30	25	B	A	A
			100	B	A	A

Type	Medium Name	Concentration/%	Temperature/°C	SS316/SS316L	Hastelloy C	Tantalum
Salt	Potassium perman-ganate	10	25	B	B	×
			100	B	B	×
	Aluminum sulfate	<50	25	A	A	A
			100	A	A	A
	Aluminum chloride	0-100	25	B	A	A
			100	×	A	A
	Magnesium sulfate	<30	25	A	A	A
			100	A	A	A
	Magnesium nitrate		25	B	B	A
			100	B	B	A
	Magnesium chloride	<40	25	B	A	A
			100	B	A	A
	Calcium sulfate	10	25	A	B	A
			100	A	B	A
		100	25	B	B	A
			100	B	B	A
	Talc	100	25	B	B	A
			100	×	B	A
	Calcium phosphate	10	25	B	B	A
			100	B	B	A
	Calcium chloride	<80	25	B	A	A
			100	B	A	A
	Ferric chloride	30	25	C	B	A
			100	C	C	A
Elements, gases and their inorganic compounds	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	×
		90-100	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

Type	Medium Name	Concentration/%	Temperature/°C	SS316/SS316L	Hastelloy C	Tantalum
Alcohols, aldehydes, ethers, ketones, lipids	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
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
Hydrocarbons and petroleum products	Acrylonitrile		25	A	A	A
			100	A	A	A
	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
Others	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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