

PASVE® pH is a mounting/service valve for pH sensors. It can be used with practically all pH sensors in this size category.

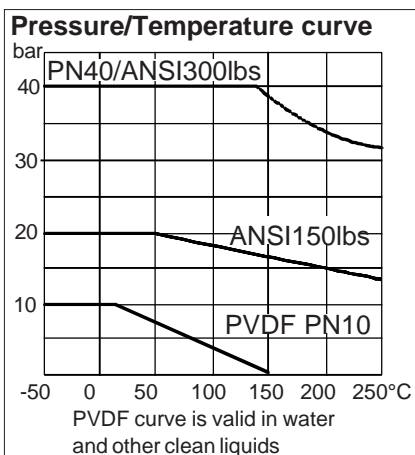
PASVE® pH allows the cleaning and calibration of pH sensors without stopping the process. When required, this can be done automatically. To protect the sensor in abrasive processes, it can be turned to the measuring position only for the duration of the actual measurement. **PASVE® pH** is available in a manually operated type or equipped with a pneumatic or electric actuator.

TECHNICAL SPECIFICATIONS

Applicable pH sensors
Refer to the Selection Table.

Max. operating pressure/temperature

40 bar, 250 °C, (see the appended table). Min. operating temp. -50°C. Sensor-specific limitations should also be taken into account in applications.



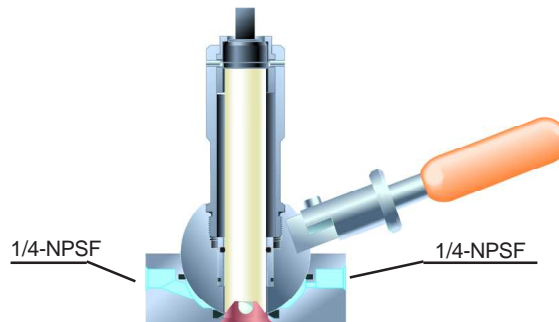
Materials

Wetted parts: AISI316L, AISI904L, Titanium, Hastelloy® C276, Duplex, 254 SMO® and for type F PVDF.
Seals: PTFE, PTFE with carbon and graphite filling or PTFE 50%+AISI316 50% mixture

Weight

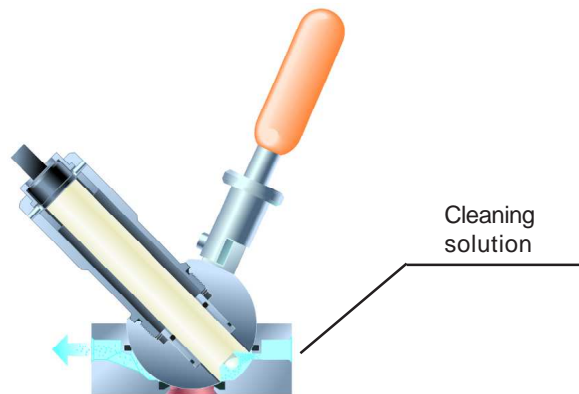
PASVE pHC 4.7 kg, PASVE pHF 4.8 kg, PASVE pHF 8.9 kg, Actuator 5.5 kg

OPERATING POSITIONS



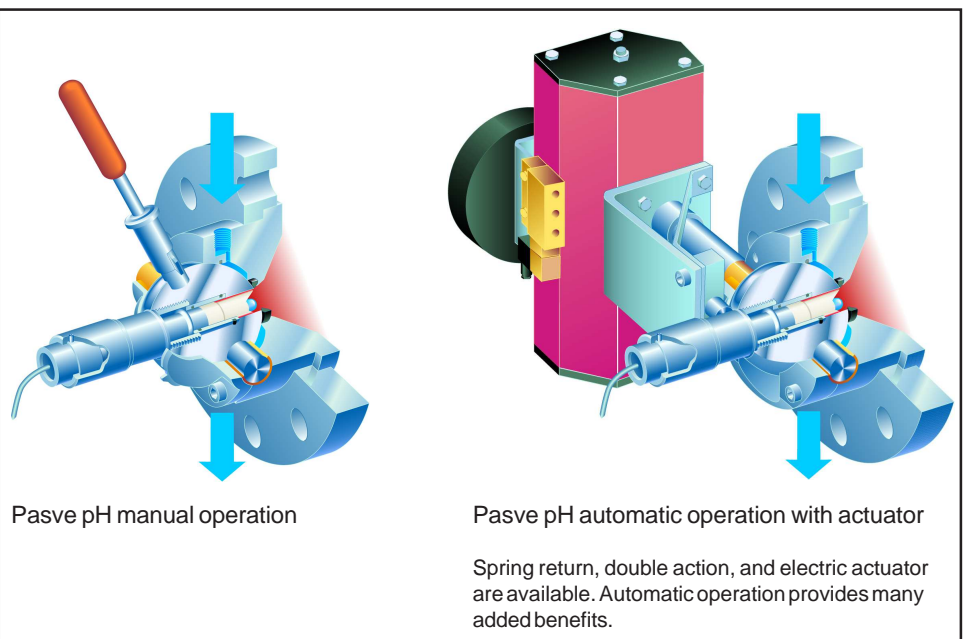
Measuring position

Sensor in measurement. Valve's and sensor's water cooling through flushing channel.



Servicing and calibration position

Sensor turned to cleaning, calibrating and protective position without stopping the process.



Pasve pH manual operation

Pasve pH automatic operation with actuator

Spring return, double action, and electric actuator are available. Automatic operation provides many added benefits.

Hastelloy is the registered trademark of Haynes International.

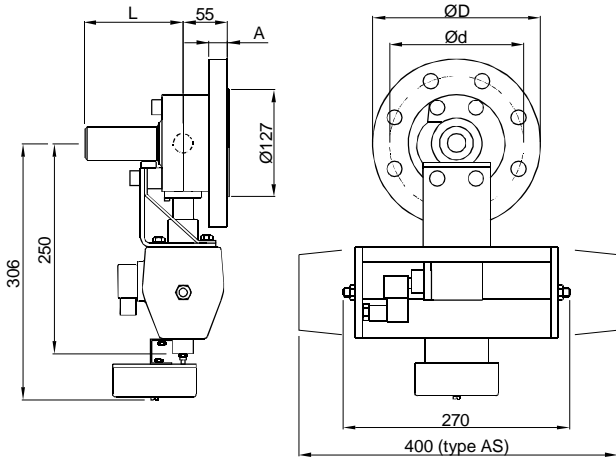
254 SMO is the registered trademark of Outokumpu Stainless Inc.

Pasve is the registered trademark of Satron Instruments Inc.

We reserve the right for technical modifications without prior notice.

Pasve pH with pneumatic actuator

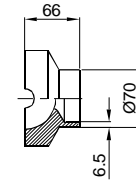
PASVE pHF
(Flange type)



PASVE pHC
(Welded on container or)



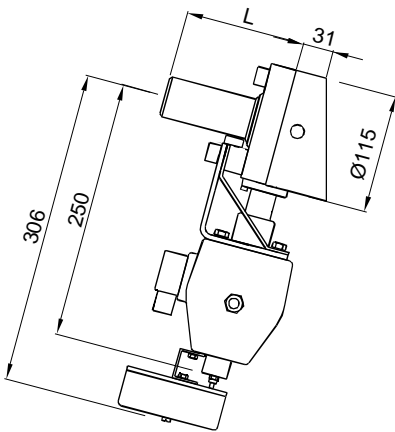
PASVE pHP
(Shape the body to be suitable to the pipe, welded)



PASVE pHF

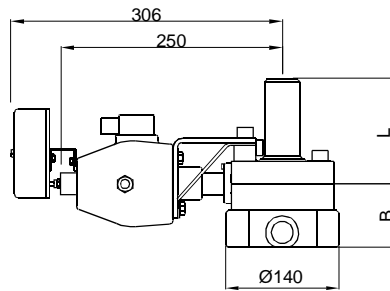
FLANGE		ØD	Ød	A
Code	Type			
A	ANSI 3" 150 lbs	191	152.4	22
B	ANSI 3" 300 lbs	210	168.3	27
H	ANSI 4" 150 lbs	229	190.5	26
G	ANSI 4" 300 lbs	254	200	29
T	DN50 PN40	165	125	20
D	DN80 PN40	200	160	22
J	DN100 PN10/16	220	180	22
C	DN100 PN40	235	190	26
E	JIS10K 80	185	150	20
F	JIS40K 80	210	170	30

PASVE pHB
(Welded on container or vertical pipe, body 15°)

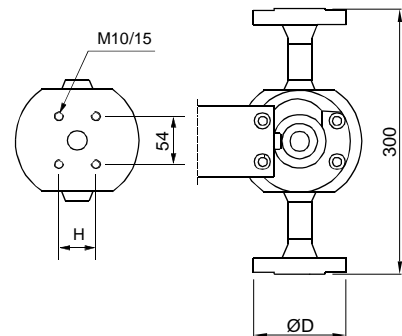
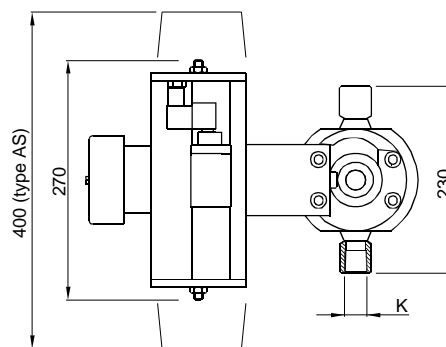
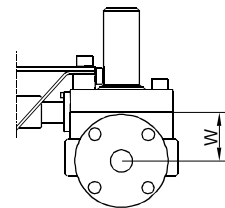


L depends on the sensor type

PASVE pHT
(Flow-through, threaded connection)



PASVE pHD
(Flow through, flange connection)



PASVE pHD

FLANGE		W	ØD	H
Code	Type			
H	ANSI 1" 150 lbs	55	108	48
J	ANSI 1" 300 lbs	55	124	48
U	ANSI 2" 150 lbs	68	153	76
V	ANSI 2" 300 lbs	68	165	76
G	DN25 PN40	55	115	48
T	DN50 PN40	68	165	76

PASVE pHT

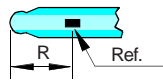
THREAD		B	H
Code	Type (dim.K)		
2	1" - NPT	77	48
4	1.5" - NPT	92	64
5	2" - NPT	104	76

Dimensions (in mm)

Sensor connection

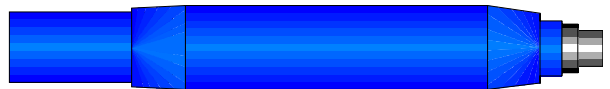
Standard sensor connection PG13.5 / length 120 mm

Code	dimension R
S	R < 30 mm
M	R < 20 mm
L	R < 10 mm



Special sensor connection types

Code	Sensor
A1	Satron S508
A2	in-line Satron S508 (manual only)
B1	Broadley-James Dynaprobe II
B2	Broadley-James S410
B3	Broadley-James DynaProbe ST856
C1	Honeywell Durafet II, smooth tip
C2	Honeywell Meredian II and Durafet II guarded tip
D1	Barben 546/556, flat glass, 38 mm insertion depth
D4	Barben 551/561, flat glass, 100 mm insertion depth
D6	in-line Barben 551/561, flat glass, 100 mm insertion depth (manual only)
E1	E+H CPF81, guarded tip, machined
E2	E+H CPF81 -flat glass, machined
E3	E+H CPF81/82, guarded tip, not machined
E4	E+H CPF81, flat glass, not machined
F1	Foxboro 871A
F2	Foxboro 871pH
F3	Foxboro PH10-3
F4	Foxboro PH10-2
F5	in-line Foxboro PH10-2 (manual only)
G1	Lange (GLI) PD1P1.99
G2	Lange (GLI) DPD1P1.99
H1	Hamilton Inchtrode N75P
H2	Hamilton Inchtrode N75F
I1	Teledyne Isco 701pH
K1	Kemotron 4835 and 4837 UPW
O2	Orbisphere (31110)
P1	Polymetron 8350/51
R1	Rosemount 389
R2	Rosemount 385+
R4	Rosemount TUpH 396/396VP, 398/398VP
R5	in-line Rosemount TUpH Combination 396P/PVP (manual only)
R6	Rosemount TUpH Combination 396P/PVP
R9	Rosemount 3300HT/HTVP
RA	Rosemount 3500P/VP
RB	Rosemount RB-546
T1	ABB TB556, flat glass, 38 mm insertion depth
T2	ABB TB557, flat glass
T3	ABB TB564, flat glass
T4	ABB TB561, flat glass, 100 mm insertion depth
T5	in-line ABB TB564 (manual only), flat glass
T6	in-line ABB TB561 (manual only), flat glass, 100 mm insertion depth
T7	ABB TB556, flat glass, 28 mm insertion depth
Y1	Yokogawa FU20 -- NPT (guarded tip)
Y2	Yokogawa FU20 -- FSM (flat glass)



Surface temperature

Ambient temperature °C	Temperature class
70	T6
85	T5
120	T4

European Directive Information

ATEX directive (94/9/EC)
Satron Instruments Inc. complies with the ATEX directive.

European Pressure Equipment Directive (PED) (97/23/EC)
- Sound Engineering Practice

European Certification: II 3 GD

Selection Table																			
PASVE pH																			
Mounting type				Wetted parts (C, B and P)															
C	On container or horizontal pipe, welded	Code	Material																
B	On container or vertical pipe, body 15°, welded	none	AISI316L (EN 1.4404), std.																
P	Shape the body to be suitable to the pipe, welded	3	Hastelloy® C276 (EN 2.4819)																
F	On flange	4	AISI904L (EN 1.4539)																
T	Flow-through, threaded connection	6	Titanium Ti-2 (EN 3.7035)																
D	Flow-through, flange connection	8	Duplex (EN 1.4462)																
		K	254 SMO®																
Process connection type, specified for mounting type F																			
Flanges				Flanges				Wetted parts											
Code	Type	Code	Type	Code	Material														
T	DN50 PN40 (only manual using)	H	ANSI 4"/150 lbs	2	AISI316L (EN 1.4404)														
D	DN80 PN40	G	ANSI 4"/300 lbs	3	Hastelloy® C276 (EN 2.4819)														
J	DN100 PN10/16	E	JIS 10K 80	4	AISI904L (EN 1.4539)														
C	DN100 PN40	F	JIS 40K 80	6	Titanium Ti-2 (EN 3.7035)														
A	ANSI 3"/150 lbs			8	Duplex (EN 1.4462)														
B	ANSI 3"/300 lbs			K	254 SMO®														
				P1	PVDF PN10														
					(P1 only for flange codes D,A,E)														
Process connection type, specified for mounting type T																			
Threads				Wetted parts															
Code	Type	Code	Material																
2	1" - NPT	2	AISI316L (EN 1.4404)																
4	1.5" - NPT	3	Hastelloy® C276 (EN 2.4819)																
5	2" - NPT	4	AISI904L (EN 1.4539)																
		6	Titanium Ti-2 (EN 3.7035)																
		8	Duplex (EN 1.4462)																
		K	254 SMO®																
Process connection type, specified for mounting type D																			
Flanges				Flanges				Wetted parts											
Code	Type	Code	Type	Code	Material														
G	DN25 PN40	U	ANSI 2"/150	2	AISI316L (EN 1.4404)														
M	DN40 PN40	V	ANSI 2"/300	3	Hastelloy® C276 (EN 2.4819)														
T	DN50 PN40	K	JIS 10K 25	4	AISI904L (EN 1.4539)														
H	ANSI 1"/150	R	JIS 10K 40	6	Titanium Ti-2 (EN 3.7035)														
J	ANSI 1"/300	S	JIS 10K 40	8	Duplex (EN 1.4462)														
N	ANSI 1.5"/150	X	JIS 10K 50	K	254 SMO®														
P	ANSI 1.5"/300	L	JIS 40K 25																
		Y	JIS 40K 50																
Seals																			
0	PTFE + 20C + 5Gr / FPM (std.)	4	PTFE + 20C + 5Gr / FPM+AISI316 / PTFE 50 % (Hard)																
1	PTFE 100% / FPM	5	PTFE 100% / FPM+AISI316 / PTFE 50% (Hard)																
2	PTFE +20C+5Gr / FFPM	6	PTFE 100% / FPM + PVDF 100% (Hard)																
3	PTFE 100% / FFPM																		
Sensor connection																			
Sensor connection types, see page 3																			
Pt100 temperature sensor																			
0	No sensor																		
X	With sensor (Measuring range -50 ... +200°C)																		
Actuator																			
MD	No actuator (manually operated)	AE1	Electric actuator 230 V 50 Hz																
AD	Double-action actuator	AE3	Electric actuator 115 V 60 Hz																
AS	Spring-return actuator	A0	No actuator, fittings to the actuator																
Solenoid for actuator (only for actuator types AD and AS)																			
0	No solenoid valve	2	24 V DC 2.5 W (also EEx dm)	4	28 V DC 0.4 W (EEx ia)														
1	230 V AC 50 Hz 2 W (as standard)	3	115 V AC 60 Hz 2 W																
Solenoid explosion proof																			
0	No explosion proof	2	EEx ia IIC T6 (only 28V)																
1	EEx m II T5	3	EEx dm IIC T5/T6 (only 24V)																
Position switches																			
0	None	A	Position switch EEX ib IIC T5/T6																
X	Equipped with position switches																		
E	Position switch NAMUR, DIN 19234																		
Special options																			
Z1	For oxygen use	Z4	Cutting ball																
Z2	Process side flushing	Z5	Diamond-coated ball																
Z3	Actuator (AS) reverse action	Z7	Process side flushing through the ball, only Ø12 / L = 120mm sensors																
Documentation																			
Installation and operating instructions				Material certificates															
IE	English	0	No material certificate																
IF	Finnish	MC1	SFS-EN 10204-2.1 (DIN50049-2.1)																
		MC2	SFS-EN 10204-2.2 (DIN50049-2.2)																
		MC3	SFS-EN 10204-3.1B (DIN50049-3.1B)																

Specification example: PASVE pH D U2 0 O2 X AD3 1 E Z1 IEMC1