



SensoGate WA 130

Pneumatic sensor lock-gate for demanding fully automated process applications

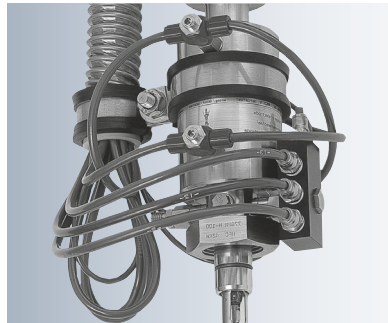
Easy installation and clear hose connections

SensoGate® WA 130 offers genuine Plug & Play: The central multiplug is simultaneously linked via a single connection to all rinsing, cleaning, and calibration media as well as the control air and limit position mechanisms.

With the complete interior media routing and the multiplug, the connection is just as safe as it is convenient. Media entrainment is minimized and the limit-position mechanism is reliably protected.



SensoGate® with central multiplug



Conventional retractable fittings: Tangled hoses (left) and deposits on unprotected limit-position mechanism (right)

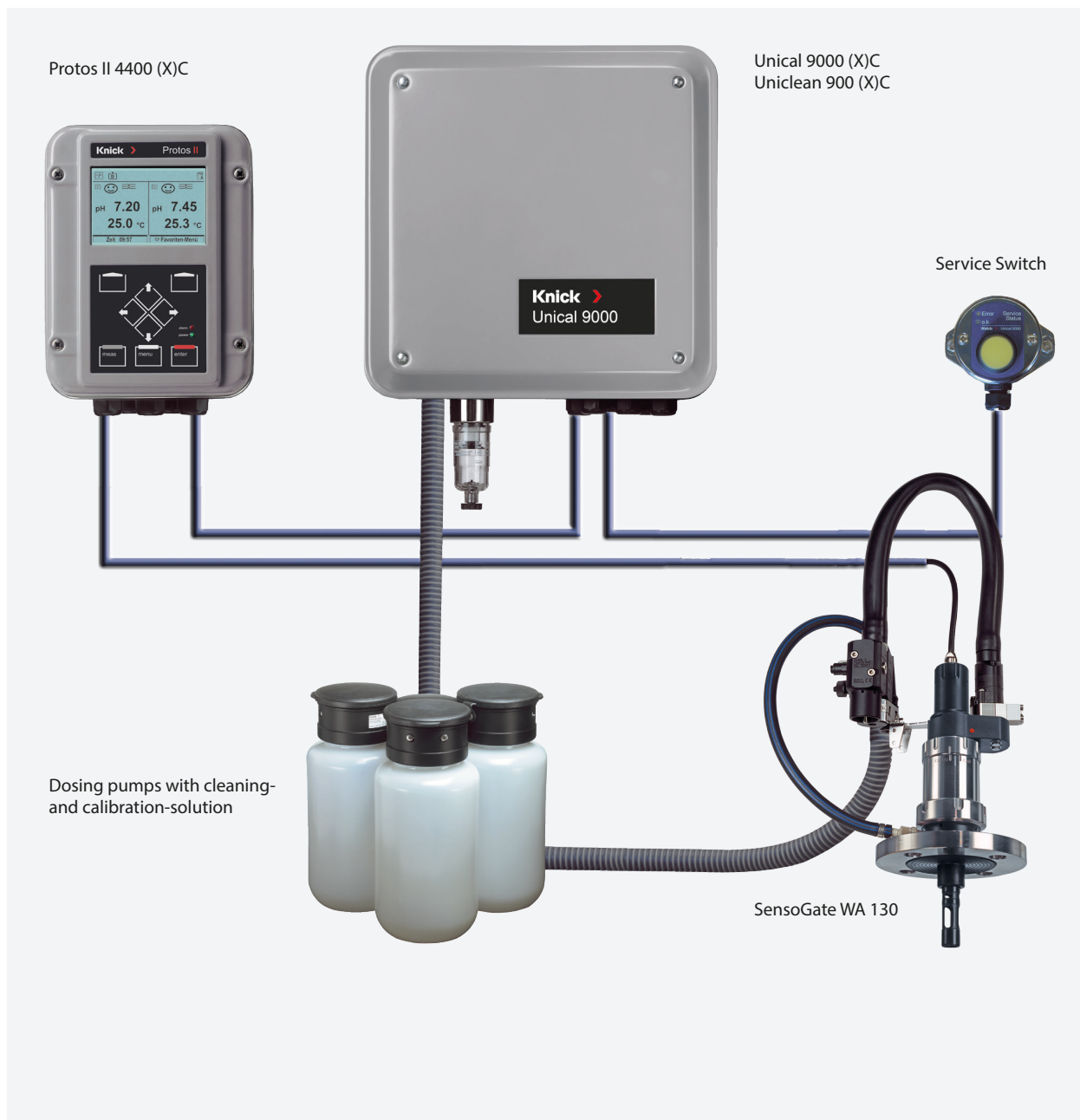
SensoGate WA 130

Systematic, Fully Automatic Liquid Analysis

The combination of the SensoGate® WA 130 retractable fitting with the Uniclean® 900 (cleaning) or Uniclean® 9000 (cleaning and calibration) control units and the Protos® 3400 measuring system enables fully automated measuring stations with an outstandingly high level of precision and reliability.

The system offers the highest levels of safety with monitoring of the compressed air and water supply, the probe position, and the buffer and cleaning solution levels.

Maximum stability and precision due to patented metering-pump technology with separate routing of the media. Short-time measurements and regular cleaning enable longer sensor life. The production process is neither interrupted by automatic cleaning nor by calibrations (for further information, see Controllers chapter from page 306).



Facts

- compact, smooth, and dirt-resistant design with interior media routing and integrated limit-position mechanism
- minimum maintenance costs and maximum flexibility thanks to completely modular design
- very simple replacement of gaskets due to divided calibration/cleaning chamber
- increased service life and reduced seal wear
- ATEX approval II 1GD c II for the complete fitting
- cost reduction by simple installation, operation, and maintenance
- very high availability
- protective rinsing of the seals for a long service life
- SensoLock for high safety of operation
- integrated check valves and limit switches
- fast and uncomplicated replacement of calibration chamber and immersion tube
- all maintenance can be performed on site
- cyclone rinsing for optimum cleaning effect
- superior sensor immersion depth
- standard sensor length (225 mm) even for large immersion depths
- multiple process connections available
- flange version with scraper ring
- modular design allows specific replacement of the process-wetted materials: PEEK, PVDF, PP, 1.4571, Hastelloy
- plastic versions with high pressure and temperature resistance due to carbon-fiber-reinforced plastics
- special version for sensors with pressurizable liquid electrolyte

SensoGate WA 130

Specifications

Ambient temperature	5 ... 70 °C
Permissible process temp	1.4571, Hastelloy: 5 ... 140 °C PEEK HD, PVDF HD: 5 ... 120 °C (temporarily 140 °C, 30 min) PEEK, PVDF: 5 ... 100 °C
Permitted process pressure during movement	6 bars overpressure at 140 °C (1.4571/Hastelloy) 6 bars overpressure at 120 °C (PEEK HD/PVDF HD) 3 bars overpressure at 140 °C for 30 min (PEEK HD) 6 bars overpressure at 40 °C, 1 bar at 100 °C (PEEK/PVDF)
Permissible static pressure	16 bar (40 °C) in service position
Air supply	4 ... 7 bars, filtered 10 ... 25 µm, oil- and condensate-free
Effective immersion depth	65 mm or 120 mm, measured from lower edge of flange to sensor tip (flange version)
Total immersion depth incl. immersion tube	88 mm or 143 mm (flange version)
Process adaptations*)	lapped flanges DN 32/DN 50/DN 65/DN 80/DN 100 lapped flanges ANSI 316, 1 ½; / 2; / 2 ½; / 3 dairy-pipe screw joint DN 50/DN 65/DN 80/DN 100 Ingold socket 25 mm (G 1 ¼;)
Sensors	225 mm, PG-13,5-coupling 250 mm for pressurized liquid electrolyte sensors
Rinse-medium inlet	1) for Unical® 9000/Uniclean® 900: Connection with hose grommet and coupling 2) for manual control: ZU 0631/ZU 0646 3) for free hose connection: 6/4 mm
Rinse-medium outlet	connection: hose grommet with coupling
Rinse function	seal rinsing during stroke movement
Process-wetted materials	stainless steel 1.4571, Hastelloy PVDF, PVDF HD (carbon-fiber-reinforced) PEEK, PEEK HD (carbon-fiber-reinforced)
Enclosure	stainless steel 1.4571
Ingress protection	IP 66
Connection to Uniclean 900/Unical 9000	compact multiplug connection
Free hose connection	1 x 4/6 mm hose coupling for rinse water/cleaning agent 2 x 4/6 mm hose coupling for compressed air 2 x 4/6 mm hose coupling for pneumatic limit switches
Sensor protection in the process	integrated in immersion tube
Limit switches	noncontacting electrical limit-position control in conjunction with Uniclean® 900/Unical® 9000/ ZU 0631 or pneumatic limit switches for free hose connection
Certificates	3.1 Material Certificate (optional) ATEX II 1 GD c II

*) Special connections on request

Product Line

Process sensor lock-gate, pneumatic		WA 130 -									
Explosion protection	for hazardous area Zone 1 without	X									
		N									
Sensor	Sensor Ø12 mm with PG 13,5 pH-Sensor Ø12 mm (pressurization possible) optical Sensor Ø12 mm with PG 13,5	0									
		1									
		4									
Gasket material	FKM	A									
	EPDM	B									
	FFKM / FKM	C									
	EPDM - FDA	E									
	FFKM / EPDM - FDA	G									
	FFKM - FDA	H									
	FFKM Chemraz 505	J									
	FFKM	K									
	FFKM Perlast 75B	L									
	FFKM Kalrez 6375	M									
Process-wetted materials*)	1.4571 / 1.4571 / 1.4571	A									
	Hastelloy / Hastelloy / Hastelloy	B									
	PEEK / PEEK / PEEK	C									
	PVDF / PVDF / PVDF	D									
	PEEK HD / PEEK HD / PEEK HD	E									
	PVDF HD / PVDF HD / PVDF HD	F									
	PP / PP / PP	P									
	Titan / Titan / Titan	T									
	1.4571 / 1.4571 / PEEK	Z									
Process adaption	Ingold socket, 25 mm	H	0								
	Flange, loose, 1.4571, PN10/16, DN 32	B	0								
	Flange, loose, 1.4571, PN10/16, DN 40	B	A								
	Flange, loose, 1.4571, PN10/16, DN 50	B	1								
	Flange, loose, 1.4571, PN10/16, DN 65	B	2								
	Flange, loose, 1.4571, PN10/16, DN 80	B	3								
	Flange, loose, 1.4571, PN10/16, DN 100	B	4								
	Flange, loose, 1.4571, PN40, DN 25	E	X								
	Flange, loose, 1.4571, PN40, DN 32	E	0								
	Flange, loose, 1.4571, PN40, DN 40	E	A								
	Flange, loose, 1.4571, PN40, DN 50	E	1								
	Flange, loose, 1.4571, PN40, DN 65	E	2								
	Flange, loose, 1.4571, PN40, DN 80	E	3								
	Flange, loose, 1.4571, PN40, DN 100	E	4								
	dairy pipe DN 50	C	1								
	dairy pipe DN 65	C	2								
	dairy pipe DN 80	C	3								
	dairy pipe DN 100	C	4								
	Flange, loose, ANSI 316, 150 lbs, 1 ½"	D	0								
	Flange, loose, ANSI 316, 150 lbs, 2"	D	1								
	Flange, loose, ANSI 316, 150 lbs, 2 ½"	D	2								
	Flange, loose, ANSI 316, 150 lbs, 3"	D	3								
	Flange, loose, ANSI 316, 150 lbs, 3 ½"	D	4								
	Flange, loose, ANSI 316, 150 lbs, 4"	D	5								

SensoGate WA 130

Product Line

	Flange, loose, ANSI 316, 300 lbs, 1 1/2"	P	0					
	Flange, loose, ANSI 316, 300 lbs, 2"	P	1					
	Flange, loose, ANSI 316, 300 lbs, 2 1/2"	P	2					
	Flange, loose, ANSI 316, 300 lbs, 3"	P	3					
	G 1 (outside)	G	1					
	G 1 1/4 (outside)	G	3					
	G 1 1/2 (outside)	G	5					
	G 2 1/4" for ARF210/30xxxx	K	8					
	R 1 (outside)	R	1					
	R 1 1/4 (outside)	R	3					
	1" NPT (outside)	N	1					
	fitting DIN 3237-1/-2, PN16, DN25	T	X					
	fitting DIN 3237-1/-2, PN16, DN32	T	0					
	fitting DIN 3237-1/-2, PN16, DN40	T	A					
	fitting DIN 3237-1/-2, PN16, DN50	T	1					
	fitting DIN 3237-1/-2, PN16, DN80	T	3					
	Clamp 1,5"	J	1					
	Clamp 2"	J	2					
Immersion depth	short	A						
	long	B						
	short OS, without Lock function	K						
Connection	media connection PP	A						
	media connection PEEK	B						
	media connection, PEEK, with integr. connection of add. medium	C						
Special Variant	without			0	0	0		
	equipped with special grease (provided by customer)						1	
	with scraper ring, reinforced version, PTFE/PEEK (ZU 0760)							3
	customer-specific data sheet							F

Other configurations possible by request..

^{*)}Material combinations: Process-wetted part of calibration chamber/rinse-wetted part of calibration chamber/immersion tube

Accessories

		Order No.
Service set	basic equipment	ZU 0680
	maintenance, repair, retrofit	ZU 0740
	calibration chamber	ZU 0754
Mounting aid	for 20 x 2.5 O-rings	ZU 0747
	for scraper ring	ZU 0746
Sensor mounting key SW 19		ZU 0647
Bellows	version for liquid-electrolyte sensors	ZU 0739
protective cap	version for sensors with polymeric electrolyte	ZU 0759
Scraper ring	reinforced version, PTFE/PEEK	ZU 0760
Adapter for free hose connection	PP/EPDM (incl. electric feedback)	ZU 0733
	PP/EPDM (without electric feedback)	ZU 0734
	PEEK/EPDM (incl. electric feedback)	ZU 0742
Material Certificate 3.1	according to EN 10204	ZU 0268/WA13n
Air supply	for pressurized Sensors, 0,5 ... 4 bars	ZU 0670/1
Air supply	for pressurized Sensors, 1 ... 7 bars	ZU 0670/2
Hose, 20 m (extension for ZU 0670)		ZU 0713
Flange protectors	PEEK / FFKM DN 80	ZU 0755
	PEEK / FFKM DN 100	ZU 0756
	PVDF / FFKM DN 80	ZU 0757
	PVDF / FFKM DN 100	ZU 0758
HSD-weld-in socket, straight, 40 mm	for tank wall	ZU 0922
	for pipe DN 50	ZU 0922/DN50
	for pipe DN 65	ZU 0922/DN65
	for pipe DN 80	ZU 0922/DN80
	for pipe DN 100	ZU 0922/DN100
HSD-weld-in socket, beveled, 15°, 40 mm	for tank wall	ZU 0923
	for pipe DN 50	ZU 0923/DN50
	for pipe DN 65	ZU 0923/DN65
	for pipe DN 80	ZU 0923/DN80
	for pipe DN 100	ZU 0923/DN100
Safety weld-in socket, straight, 40 mm	for tank wall	ZU 0717
	for pipe DN 50	ZU 0717/DN50
	for pipe DN 65	ZU 0717/DN65
	for pipe DN 80	ZU 0717/DN80
	for pipe DN 100	ZU 0717/DN100
Safety weld-in socket, beveled, 15°, 40 mm	for tank wall	ZU 0718
	for pipe DN 50	ZU 0718/DN50
	for pipe DN 65	ZU 0718/DN65
	for pipe DN 80	ZU 0718/DN80
	for pipe DN 100	ZU 0718/DN100
Securing for process adaption K8		ZU 1055
Securing for 25 mm-socket		ZU 0818
Clamp for G 1-socket		ZU 0877
Material Certificate 3.1	according to EN 10204	ZU 0268/weld-in socket
Drain hose	3,5 m	ZU 0889
	10 m	ZU 0889-010

SensoGate WA 130

Check Valve

		RV01-			
Material casing, valve	Stainless Steel 1.4404		H		
	PEEK		E		
Material gaskets	FKM		A		
	EPDM		B		
	FFKM		C		
	FKM FDA		F		
	EPDM FDA		E		
	FFKM FDA		H		
Connection entry point inner thread	G $\frac{1}{4}$			4	
	G $\frac{1}{8}$			8	
Connection exit point external thread	G $\frac{1}{4}$			4	
	G $\frac{1}{8}$			8	

Gaskets

	Set	Contact (process/rinse medium)	Order No.
Flange or dairy pipe	A/1	FKM	ZU 0689/1
	A/2	FKM / FKM	ZU 0689/2
	B/1	EPDM	ZU 0690/1
	B/2	EPDM / EPDM	ZU 0690/2
	C/1	FFKM	ZU 0691/1
	C/2	FFKM / FKM	ZU 0691/2
	E/1	EPDM FDA	ZU 0692/1
	E/2	EPDM FDA / EPDM	ZU 0692/2
	K/1	FFKM	ZU 0691/1
	K/2	FFKM / FFKM	ZU 0730
Ingold socket	A/1	FKM	ZU 0693/1
	A/2	FKM / FKM	ZU 0693/2
	B/1	EPDM	ZU 0694/1
	B/2	EPDM / EPDM	ZU 0694/2
	C/1	FFKM	ZU 0695/1
	C/2	FFKM / FKM	ZU 0695/2
	E/1	EPDM FDA	ZU 0696/1
	E/2	EPDM FDA / EPDM	ZU 0696/2
	K/1	FFKM	ZU 0695/1
	K/2	FFKM / FFKM	ZU 0731

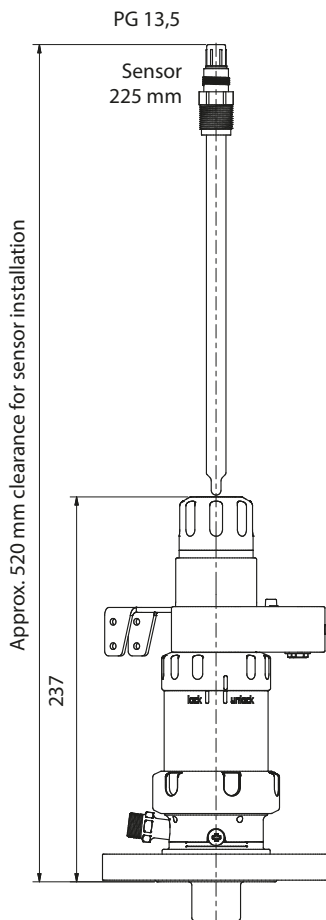
Spare Parts

Spare Parts		Order No.
Immersion tube, short	1.4571	ZU 0722
	Hastelloy C-22	ZU 0853
	PEEK	ZU 0724
	PVDF	ZU 0726
	PP	ZU 0825
	Titan	ZU 0893
Immersion tube, long	1.4571	ZU 0723
	Hastelloy C-22	ZU 0854
	PEEK	ZU 0725
	PVDF	ZU 0727
	PP	ZU 0826
	Titan	ZU 0894

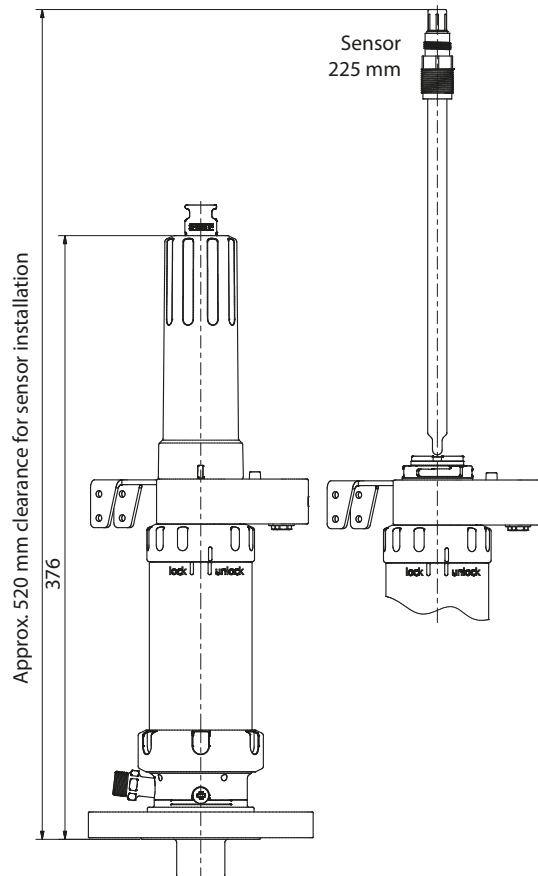
SensoGate WA 130

Dimension Drawings

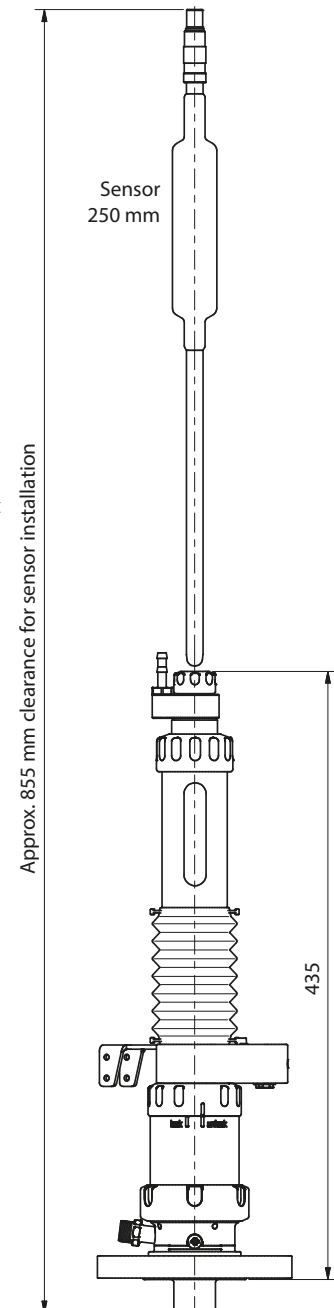
Installation dimensions for SensoGate® WA 130 with short immersion depth for sensors with gel electrolyte



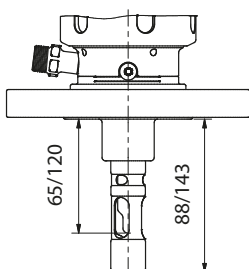
Installation dimensions for SensoGate® WA 130 with long immersion depth for sensors with gel electrolyte



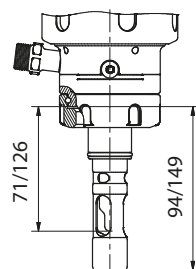
Installation dimensions for SensoGate® WA 130 for sensors with liquid electrolyte



SensoGate® WA 130
Process adaptation for
flange DN 32 ... 100
ANSI 316, 1 1/2; ... 3,
short and long
immersion depth



SensoGate® WA 130
Process adaptation for
25-mm Ingold socket,
short and long
immersion depth



SensoGate® WA 130 Process
adaptation for dairy pipe, DIN
11851 DN 50 ... 100, short
and long immersion depth

