

Pneumatic Retractable Fittings

Pharm

Food



SensoGate® WA 131 H

Pneumatic retractable fitting for simple commercially available control units

Variable and reasonably priced

Based on the proven SensoGate® modular design principle, the WA 131 H retractable fitting is ideal for hygienic applications with automatic or semi-automatic connections to simple commercially available or customer-developed control units.

Hygienic and safe

Steam-sterilizability of the SensoGate® WA 131 H is validated. In contrast to other commercially-available fittings, this applies not just to the process-wetted parts but also the rinsing chamber. This means that its suitability for unrestricted use in pharmaceutical and food applications has been attested. This also allows validation in FDA-regulated production processes. The only part of the immersion tube which comes in contact with the process is that part which was previously sterilized in the rinsing chamber.

Superior technology

In addition to sterility, it is also vital that the tube can be cleaned. The SensoGate® fittings have turned the concept of a mandatory rinsing into a reality; an integrated flow body directs the hot steam or rinsing liquid across all the surfaces to the interior of the foremost gasket. The hygienic SensoGate® versions are the only fittings on the market to offer hygienic design plus a genuine lock-gate function. At no time – not even during probe movement – is there any contact between the process and the (possibly unhygienic) surroundings.

Individual solutions

The design of the affordable SensoGate® WA 131 models is scalable to meet requirements in terms of connections and functions. Every design permits the sensor to be manually serviced or replaced. This can easily be done under process pressures as great as 10 bar. The fitting adapts perfectly to the application and can even be adapted later to changed conditions.

Facts

- steam-sterilizability validated for all process-wetted parts incl. rinsing/calibration chamber
- directed flow rinses the process seal from the process side as well as from the inside of the fitting
- perfect sensor cleaning effect by cyclone rinsing
- safe separation to the process during probe movement and prevention of re-contamination
- double gaskets with leakage bores prevent microbial contamination of the drive
- broad applications in hygienic conditions
- 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
- superior sensor immersion depth
- standard sensor length (225 mm) even for large immersion depths
- versatile process connections available
- process-wetted parts: stainless steel 1.4404, electropolished
- modular design
- special version for sensors with pressurizable liquid electrolyte
- SIP and CIP capable in the process
- SIP and CIP of calibration chamber and media routing

Specifications

Permissible process pressure and temperature during movement

10 bar (at 0 ... 140 °C)

Permissible process pressure and temp., statically in service position

16 bar (at 0 ... 40 °C), PP 10 bar (at 5 ... 20 °C)

Ambient temperature

-10 ... +70 °C

Ingress protection

IP 66

Housing material

Stainless steel A2

Permissible pressure for probe control

4 ... 7 bar

Quality of compressed air

Standard

acc. to ISO 8573-1:2001

Quality class

3.3.3 or 3.4.3

Solid contaminants

class 3 (max. 5 µm, max. 5 mg/m³)

Water content for temp. > 15 °C

class 4, pressure dew point 3 °C or below

Water content for temp. 5 ... 15 °C

class 3, pressure dew point -20 °C or below

Oil content

3 (max. 1 mg/m³)

Sensors

with gel electrolyte

Ø 12 mm, length 225 mm with temp detector, Pg 13.5 thread

with liquid electrolyte

Ø 12 mm, length 250 mm with temp detector

Process adaptations

Flanges, DIN EN 1092-1

DN 32 ... 100

Flanges, ANSI B 16.5

1 1/2" to 3"

Dairy pipe, DIN 11851

DN 50 ... 100

Ingold socket, 25 mm

25 mm

G 2 1/4"

for Knick ARF 210/30X

Clamp 1.4404

clamp 1" ... 3.5"

Varivent 1.4404

for pipes from DN 50, from DN 65 short, from DN 80 long

BioControl 1.4404

size 50/65

Connections

Outlet

G 1/8" internal, 3 m EPDM hose

For pressurized sensors

hose connection NW 6, pressure in sensor chamber 0.5 ... 1 bar above process pressure (max. 7 bar)

For compressed air (control air for retractable fitting)

push-in connector DN 4/6

Immersion depths/
Installation dimensions

see dimension drawings

Process-wetted materials

see order code

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SensoGate® WA 131 H for hygienic applications

Product Line

Order No.

Hygienic sensor lock-gate, pneumatic		WA 131H /	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explosion protection	for hazardous area Zone 1 without	X N																	
Sensor	solid electrolyte liquid electrolyte (pressurization possible)	0 1																	
Gasket material	elastomeric ring set F, FKM elastomeric ring set E, EPDM FDA elastomeric ring set G, FFKM process-wetted elastomeric ring set H, FFKM complete	F E G H																	
Process-wetted materials*	1.4404/1.4404/1.4404 (electropolished)	G																	
Process adaptation	dairy pipe, DN 50 dairy pipe, DN 65 dairy pipe, DN 80 Ingold socket, 1.4404, 25 mm (G 1 1/4") Ingold socket, hygienic, 1.4404, 25 mm (G 1 1/4") clamp 1.5", 1.4404 clamp 2", 1.4404 clamp 2.5", 1.4404 clamp 3", 1.4404 clamp 3.5", 1.4404 Varivent, 1.4404, for pipe from DN 50 Varivent, 1.4404, for pipe from DN 50 short, from DN 80 long BioControl, DN 50 BioControl, DN 65	C 1 C 2 C 3 H 0 A H 1 A J 1 A J 2 J 3 J 4 J 5 V 1 A V 2 L 1 A L 2 A																	
Immersion depth	short long	A B																	
Pneumatic-system connection	without pneumatic limit signal with pneumatic limit signal	A B																	
Rinse-medium connection	G 1/8" complete with outlet hose (3 m) G 1/8" complete with outlet hose (3 m), inlet G 1/8" G 1/8" complete with outlet hose (3 m), inlet G 1/8" and inlet hose (5 m) complete with coupling nut	0 1 2																	
SensoLock	without with	0 1																	
Special variant	without equipped with special grease (provided by customer) with scraper ring, reinforced version, PTFE/PEEK (ZU 0760)	0 0 0 0 0 1 0 0 3																	

*1 Material combinations: Process-wetted part of calibration chamber/rinse-wetted part of calibration chamber/immersion tube

Accessories (Details from page 270)

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
Bellows	version for liquid-electrolyte sensors	ZU 0739
Material Certificate 3.1		ZU 0708
Air supply	for pressurized sensors 0.5 ... 4 bar	ZU 0670/1
	for pressurized sensors, 1 ... 7 bar	ZU 0670/2
Hose	20 m (extension for ZU 0670)	ZU 0713
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

Pneumatic Retractable Fittings

Pharm

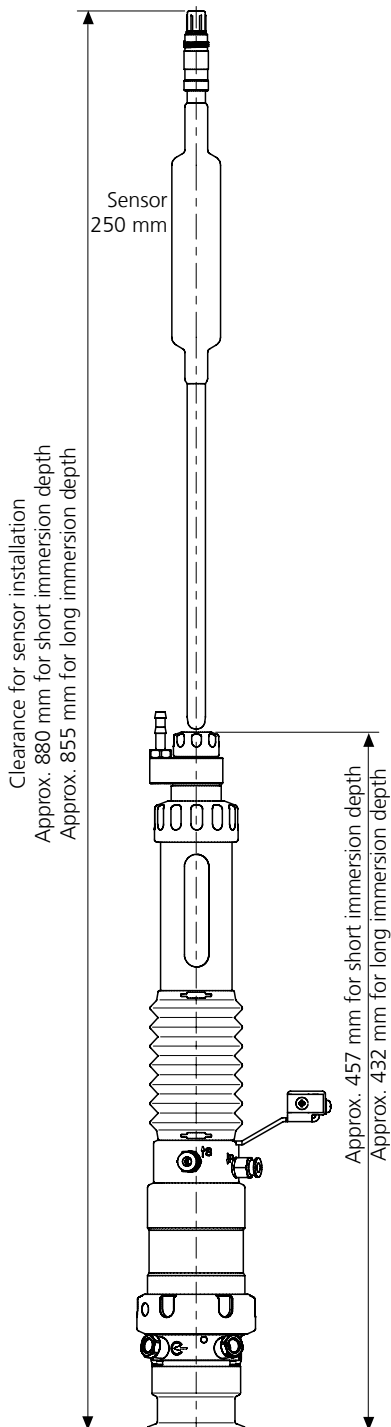
Food

SensoGate® WA 131 H for hygienic applications

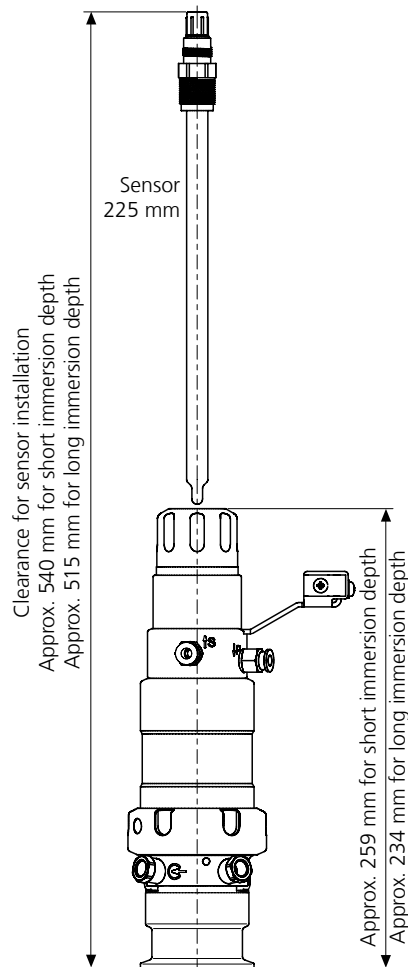
Gaskets		Set	Contact (process/rinse medium)	Order No.
Dairy pipe, Varivent, clamp	E/1	EPDM FDA	ZU 0700/1	
	E/2	EPDM FDA/EPDM FDA	ZU 0700/2	
	F/1	FKM FDA	ZU 0697/1	
	F/2	FKM FDA/FKM FDA	ZU 0697/2	
	G/1	FFKM FDA	ZU 0766/1	
	G/2	FFKM FDA/EPDM FDA	ZU 0766/2	
	H	FFKM FDA/FFKM FDA	ZU 0767	
	Ingold socket	E/1	EPDM FDA	ZU 0704/1
E/2		EPDM FDA/EPDM FDA	ZU 0704/2	
F/1		FKM FDA	ZU 0703/1	
F/2		FKM FDA/FKM FDA	ZU 0703/2	
G/1		FFKM FDA	ZU 0768/1	
G/2		FFKM FDA/EPDM FDA	ZU 0768/2	
H		FFKM/FFKM	ZU 0769	
Spare Parts				Order No.
Immersion tube, short	1.4404		ZU 0764	

Dimension Drawings

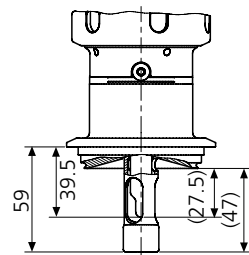
Installation dimensions for SensoGate® WA 131 H for sensors with liquid electrolyte



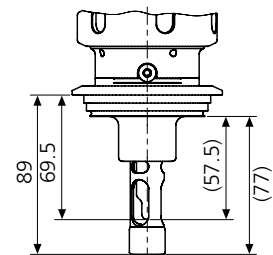
Installation dimensions for SensoGate® WA 131 H for sensors with gel electrolyte



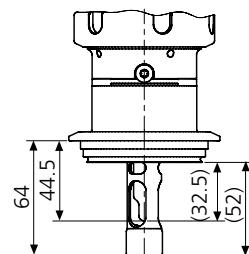
SensoGate® WA 131 H
Process adaptation for Varivent DN 50, short immersion depth



SensoGate® WA 131 H
Process adaptation for Varivent from DN 80, long immersion depth



SensoGate® WA 131 H
Process adaptation for Varivent from DN 65, short immersion depth



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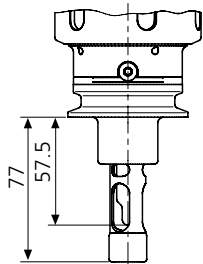
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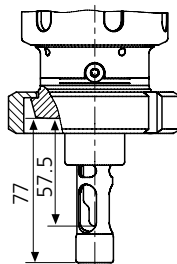
SensoGate® WA 131 H for hygienic applications

Dimension Drawings – continued

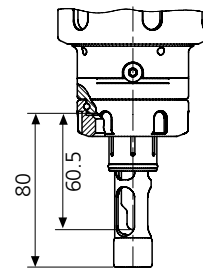
SensoGate® WA 131 H
Process adaptation for
Triclamp 2" ... 3.5",
long immersion depth



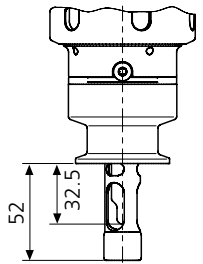
SensoGate® WA 131 H
Process adaptation for dairy pipe
DIN 11851, DN 50 ... DN 100,
long immersion depth



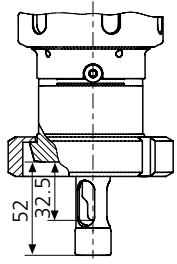
SensoGate® WA 131 H
Process adaptation for
Ingold socket, 25 mm



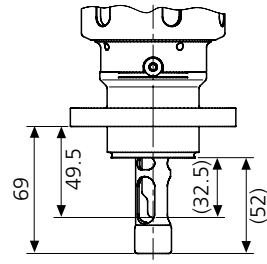
SensoGate® WA 131 H
Process adaptation for
Triclamp 1" ... 3.5",
short immersion depth



SensoGate® WA 131 H
Process adaptation for dairy pipe
DIN 11851 DN 50 ... DN 100
short immersion depth



SensoGate® WA 131 H
Process adaptation for
BioControl DN 50/DN 65



Knick >

