

# Pneumatic Retractable Fittings



## SensoGate® WA 131 H

**Sanitary pneumatic retractable fitting for use with commercially available or customer developed control systems**

### Universal pneumatic fitting

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

### Sanitary and safe

SensoGate® WA 131 H is EHEDG-certified. This applies not just to the process-wetted parts but also the cleaning chamber. This means that it is suitable for unrestricted use in pharmaceutical and food applications. 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. An integrated flow body directs the steam or cleaning

fluid across all surfaces of the interior of the primary gasket. The sanitary SensoGate® is the only fitting on the market to offer a sanitary design plus a genuine lock-gate function. At no time – not even during sensor movement – is there any contact between the process and possibly unsanitary surroundings.

### Individual solutions

The SensoGate® WA 131 H is scalable to meet customer requirements. When placing an order, customers simply state the types of connections and functions the retractable fitting must have. Every design permits the sensor to be manually serviced or replaced without interrupting the process. This can easily be done under process pressures as great as 145 psi (10 bars).

### Facts

- EHEDG/FDA-certified 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
- Cyclone cleaning effect
- Double gaskets with leakage bores prevent microbial contamination of the drive
- Broad applications in sanitary conditions
- Process-wetted parts: stainless steel 316 SS, electropolished
- SIP and CIP compatible in process
- SIP and CIP of calibration chamber and cleaning connections
- Fast and easy replacement of calibration chamber and insertion tube
- All maintenance can be performed on site
- Superior sensor immersion depth
- Standard sensor length (225 mm) even for large immersion depths
- Multiple process connections available
- Modular design
- Special version for sensors with pressurized liquid electrolyte
- Low cost, simple installation, operation, and maintenance
- Protective cleaning of seals for long service life
- SensoLock for high operational safety
- Integrated limit switches



**FDA**

## Specifications

Permissible process pressure and temperature during movement

145 psi (10 bar) (at 32 ... 284°F) 0 ... 140°C))

Permissible process pressure and temp., statically in service position

16 bars (at 32 ... 104°F (0 ... 40°C)), PP (145 psi (10 bar)) (at 41 ... 68°F (5 ... 20 °C))

Ambient temperature

14 ... 158°F (-10 ... 70°C)

Ingress protection

IP 66

Housing material

Stainless steel A2

Permissible pressure for probe control

58 ... 101 psi (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 37°F (3°C) or below

Water content for temp. 5 ... 15 °C

class 3, pressure dew point -4°F (-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 316 SS

clamp 1" ... 3.5"

Varivent 316 SS

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

BioControl 316 SS

size 50/65

## Connections

Outlet

G 1/8" internal, 3 m EPDM hose

For pressurized sensors

hose connection NW 6, pressure in sensor chamber 7 ... 14.5 psi (0.5 ... 1 bar) above process pressure (max. 101 psi (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 sanitary applications

Product Line

Order No.

Sanitary 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"/>
<b>Explosion protection</b>	for hazardous area Zone 1 without	<b>X N</b>																	
<b>Sensor</b>	solid electrolyte	<b>0</b>																	
	liquid electrolyte (pressurization possible)	<b>1</b>																	
<b>Gasket material</b>	elastomeric ring set F, FKM	<b>F</b>																	
	elastomeric ring set E, EPDM FDA	<b>E</b>																	
	elastomeric ring set G, FFKM process-wetted	<b>G</b>																	
	elastomeric ring set H, FFKM complete	<b>H</b>																	
<b>Process-wetted materials*)</b>	316 SS/316 SS/316 SS (electropolished)	<b>G</b>																	
<b>Process adaptation</b>	dairy pipe, DN 50																		
	dairy pipe, DN 65																		
	dairy pipe, DN 80																		
	Ingold socket, 316 SS, 25 mm (G 1 1/4")																		
	Ingold socket, sanitary, 316 SS, 25 mm (G 1 1/4")																		
	clamp 1.5", 316 SS																		
	clamp 2", 316 SS																		
	clamp 2.5", 316 SS																		
	clamp 3", 316 SS																		
	clamp 3.5", 316 SS																		
	Varivent, 316 SS, for pipe from DN 50																		
	Varivent, 316 SS, for pipe from DN 50 short, from DN 80 long																		
	BioControl, DN 50																		
	BioControl, DN 65																		
<b>Immersion depth</b>	short																		
	long																		
<b>Pneumatic-system connection</b>	without pneumatic limit signal																		
	with pneumatic limit signal																		
<b>Rinse-medium connection</b>	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																		
<b>SensoLock</b>	without																		
	with																		
<b>Special variant</b>	without																		
	equipped with special grease (provided by customer)																		
	with scraper ring, reinforced version, PTFE/PEEK (ZU 0760)																		

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

## Accessories

Order No.

Service set	basic equipment	<b>ZU 0680</b>
	maintenance, repair, retrofit	<b>ZU 0740</b>
	calibration chamber	<b>ZU 0754</b>
Mounting aid	for 20 x 2.5 O-rings	<b>ZU 0747</b>
	for scraper ring	<b>ZU 0746</b>
Bellows	version for liquid-electrolyte sensors	<b>ZU 0739</b>
Material Certificate 3.1		<b>ZU 0708</b>
Air supply	for pressurized sensors 7 ... 58 psi (0.5 ... 4 bar)	<b>ZU 0670/1</b>
	for pressurized sensors, 14.5 ... 101 psi (1 ... 7 bar)	<b>ZU 0670/2</b>
Hose	20 m (extension for ZU 0670)	<b>ZU 0713</b>
Safety weld-in socket, straight, 40 mm	for tank wall	<b>ZU 0717</b>
	for pipe, DN 50	<b>ZU 0717/DN50</b>
	for pipe, DN 65	<b>ZU 0717/DN65</b>
	for pipe, DN 80	<b>ZU 0717/DN80</b>
	for pipe, DN 100	<b>ZU 0717/DN100</b>
Safety weld-in socket, beveled 15°, 40 mm	for tank wall	<b>ZU 0718</b>
	for pipe, DN 50	<b>ZU 0718/DN50</b>
	for pipe, DN 65	<b>ZU 0718/DN65</b>
	for pipe, DN 80	<b>ZU 0718/DN80</b>
	for pipe, DN 100	<b>ZU 0718/DN100</b>

# Pneumatic Retractable Fittings

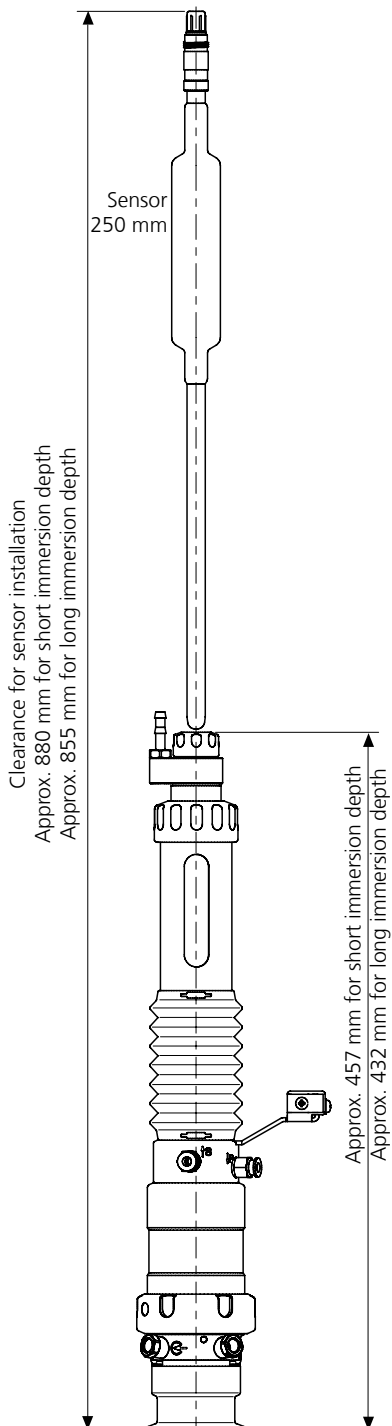
## SensoGate® WA 131 H for sanitary applications

Gaskets	Set	Contact (process/rinse medium)	Order No.
Dairy pipe, Varivent, clamp	E/1	EPDM FDA	<b>ZU 0700/1</b>
	E/2	EPDM FDA/EPDM FDA	<b>ZU 0700/2</b>
	F/1	FKM FDA	<b>ZU 0697/1</b>
	F/2	FKM FDA/FKM FDA	<b>ZU 0697/2</b>
	G/1	FFKM FDA	<b>ZU 0766/1</b>
	G/2	FFKM FDA/EPDM FDA	<b>ZU 0766/2</b>
	H	FFKM FDA/FFKM FDA	<b>ZU 0767</b>
Ingold socket	E/1	EPDM FDA	<b>ZU 0704/1</b>
	E/2	EPDM FDA/EPDM FDA	<b>ZU 0704/2</b>
	F/1	FKM FDA	<b>ZU 0703/1</b>
	F/2	FKM FDA/FKM FDA	<b>ZU 0703/2</b>
	G/1	FFKM FDA	<b>ZU 0768/1</b>
	G/2	FFKM FDA/EPDM FDA	<b>ZU 0768/2</b>
	H	FFKM/FFKM	<b>ZU 0769</b>

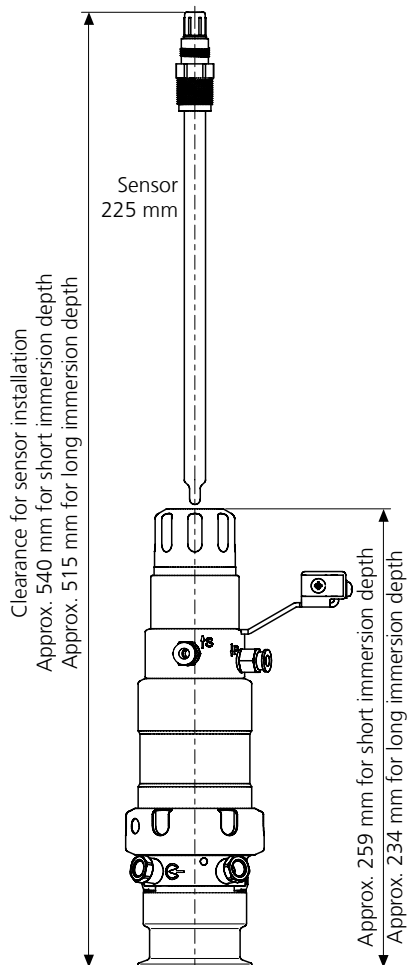
Spare Parts		Order No.
Immersion tube, short	316 SS	<b>ZU 0764</b>

## Dimensional Drawings

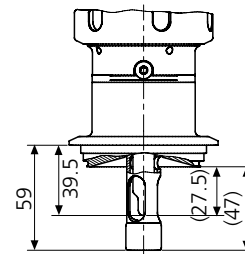
Installation dimensions for  
SensoGate® WA 131 H for sensors  
with liquid electrolyte



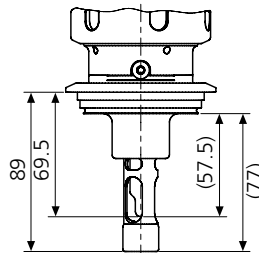
Installation dimensions for  
SensoGate® WA 131 H for sensors  
with gel electrolyte



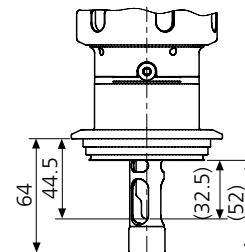
SensoGate® WA 131 H  
Process adaptation for Varivent DN 50,  
short immersion depth



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

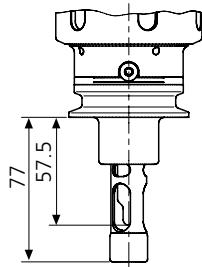


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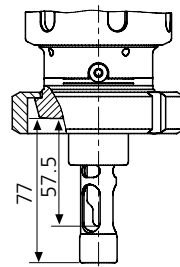
## SensoGate® WA 131 H for sanitary applications

### Dimensional Drawings – continued

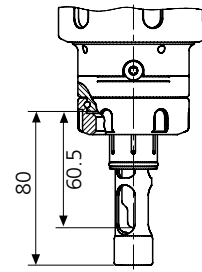
SensoGate® WA 131 H  
Process adaptation for  
Triclamp 2" ... 3.5",  
long immersion depth



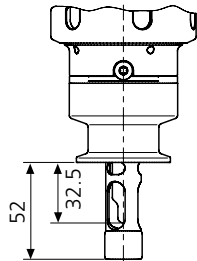
SensoGate® WA 131 H  
Process adaptation for dairy pipe  
DIN 11851, DN 50 ... DN 100,  
long immersion depth



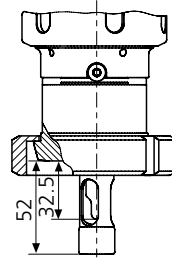
SensoGate® WA 131 H  
Process adaptation for  
Ingold socket, 25 mm



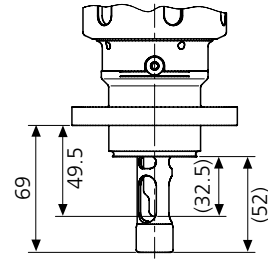
SensoGate® WA 131 H  
Process adaptation for  
Triclamp 1" ... 3.5",  
short immersion depth



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



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



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