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### SensoGate® WA 130 H

Pneumatic sensor lock-gate for demanding fully automated process applications in hygienic areas

## Easy installation and clear hose connections

SensoGate® WA 130 H 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.







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

#### **Systematic, Fully Automatic Liquid Analysis**

The combination of the SensoGate® WA 130 H 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 up-to-date information, please visit www.knick-international.com







#### **Additional Media Connection for Superheated Steam or Chemical Applications**

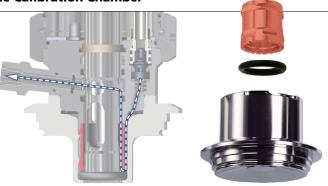
- additional media connection decoupled by integrated check valve
- easy access
- valve with high flow rate

no dead spots



Uncompromising Hygienic Design of the Calibration Chamber

The process-wetted parts as well as the calibration chamber of the SensoGate® WA 130H Sensor Lock-Gate have validated sterilization capability. This means that it is suitable for unrestricted use in pharmaceutical and food applications and also allows validation in FDA-regulated production processes. A special design enables the directed flow to the process seal.



Sterilizable and cleanable calibration chamber with special flow body

#### **Facts**

- steam-sterilizability validated for all process-wetted parts incl. rinsing/calibration chamber
- compact, smooth, and dirt-resistant design with interior media routing and integrated limit-position mechanism
- 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
- multiple 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

**FDA** 

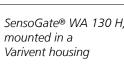
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## SensoGate® WA 130 H for hygienic applications

#### **The Versions Available**

- material: 1.4404, electropolished
- variants: short and "long" immersion depths; liquid- or gel-filled sensors; adapter for free hose connection
- ball bearings for easy detachability
- process adaptations:
  - dairy pipe DN 50 ... 100
  - Ingold socket 25 mm
  - clamp 1.5"... 3.5"
  - Varivent DN 50 ... 80
  - BioControl DN 50, DN 65



















#### **Specifications**

Ambient temperature	5 70 °C		
Permissible process temp	5 140 °C		
Permitted process pressure during movement	6 bars gauge pressure at 140 °C		
Permissible static pressure	16 bars (40 °C) in service position		
Air supply	4 7 bars, filtered 10 25 μm, oil- and condensate-free		
Effective immersion depth	33 mm, measured from lower edge of flange to sensor tip (Varivent version)		
Total immersion depth incl.	46 mm		
Process adaptations*)	dairy-pipe screw joint, DN 50/DN 65/DN 80 Ingold socket, 1.4404, 25 mm (G 1 1/4") Clamp 2", 1.4404 Varivent, DN 50 – 125, 1.4404		
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		
Rinse-medium outlet	connection: hose grommet with coupling		
Rinse function	seal rinsing during stroke movement		
Process-wetted materials	stainless steel, 1.4404		
Enclosure	stainless steel, 1.4571		
Ingress protection	IP 66		
Connection to Uniclean® 900/ Unical® 9000	compact multiplug connection		
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		
Certificates	3.1 Material Certificate (optional) ATEX II 1 GD c II		
*) Special connections on request			

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### SensoGate® WA 130 H for hygienic applications

Order No. **Product Line** WA 130H / | | | | | | | | | | | | | | | Hygienic sensor lock-gate, pneumatic X **Explosion** for hazardous area Zone 1 protection without N Sensor solid electrolyte 0 liquid electrolyte (pressurization possible) Α **Gasket material** F elastomeric ring set F, FKM Ε elastomeric ring set E, EPDM FDA G elastomeric ring set G, FFKM process-wetted elastomeric ring set H, FFKM complete Н **Process-wetted** 1.4404/1.4404/1.4404 (electropolished) G materials\*) Process adaptation dairy pipe, DN 50 C 1 C 2 dairy pipe, DN 65 dairy pipe, DN 80 C 3 Ingold socket, 1.4404, 25 mm (G 1 1/4") H 0 A Ingold socket, hygienic, 1.4404, 25 mm (G 1 1/4") H 1 A Clamp 1.5", 1.4404 J 1 A Clamp 2", 1.4404 J 2 Clamp 2.5", 1.4404 J 3 Clamp 3", 1.4404 J 4 Clamp 3.5", 1.4404 J 5 Varivent, 1.4404, for pipe from DN 50 V 1 A Varivent, 1.4404, for pipe from DN 50 short, from DN 80 long V 2 BioControl DN 50 L 1 A BioControl DN 65 L 2 A **Immersion depth** short Α В long Connection media connection, PEEK В media connection, PEEK, integr. connection of add. medium **Special variant** 0 0 0 equipped with special grease (provided by customer) 0 0 1 with scraper ring, reinforced version, PTFE/PEEK (ZU 0760) 0 0 3

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



Service set  basic equipment maintenance, repair, retrofit calibration chamber  Mounting aid  for 20 x 2.5 O-rings for scraper ring  Bellows  version for liquid-electrolyte sensors  Adapter for free hose connection  PP/EPDM (incl. electric feedback)  PPEEMDM (incl. electric feedback)  PEEK/EPDM (incl. electric feedback)  Material Certificate 3.1  Air supply  for pressurized sensors, 0.5 4 bars for pressurized sensors, 1 7 bars  Hose  20 m (extension for ZU 0670)  Flange protectors  PEEK/FFKM DN 80  PUDF/FFKM DN 80  PVDF/FFKM DN 100  Safety weld-in socket, straight, 40 mm  for pipe, DN 50 for pipe, DN 65 for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for tank wall  for pipe, DN 50	Order No.	Accessories (Details from page 270)		
Calibration chamber  Mounting aid  for 20 x 2.5 O-rings  for scraper ring  Bellows  version for liquid-electrolyte sensors  Adapter for free hose connection  PP/EPDM (incl. electric feedback)  PEEK/EPDM (incl. electric feedback)  PEEK/EPDM (incl. electric feedback)  Material Certificate 3.1  Air supply  for pressurized sensors, 0.5 4 bars  for pressurized sensors, 1 7 bars  Hose  20 m (extension for ZU 0670)  Flange protectors  PEEK/FFKM DN 80  PEEK/FFKM DN 100  PVDF/FFKM DN 100  PVDF/FFKM DN 100  Safety weld-in socket, straight, for pipe, DN 50  for pipe, DN 50  for pipe, DN 80  for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for tank wall  for pipe, DN 50	ZU 0680	basic equipment	Service set	
Mounting aid  for 20 x 2.5 O-rings  for scraper ring  Bellows  version for liquid-electrolyte sensors  Adapter for free hose connection  PP/EPDM (incl. electric feedback)  PEEK/EPDM (incl. electric feedback)  Material Certificate 3.1  Air supply  for pressurized sensors, 0.5 4 bars  for pressurized sensors, 1 7 bars  Hose  20 m (extension for ZU 0670)  Flange protectors  PEEK/FFKM DN 80  PEEK/FFKM DN 100  PVDF/FFKM DN 100  Safety weld-in socket, straight, 40 mm  for pipe, DN 50  for pipe, DN 50  for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for tank wall  for pipe, DN 50	ZU 0740	maintenance, repair, retrofit		
Bellows version for liquid-electrolyte sensors  Adapter for free hose connection PP/EPDM (incl. electric feedback)  PEEK/EPDM (without electric feedback)  Material Certificate 3.1  Air supply for pressurized sensors, 0.5 4 bars  for pressurized sensors, 1 7 bars  Hose 20 m (extension for ZU 0670)  Flange protectors PEEK/FKM DN 80  PEEK/FFKM DN 100  PVDF/FFKM DN 100  PVDF/FFKM DN 100  Safety weld-in socket, straight, 40 mm for pipe, DN 50  for pipe, DN 80  for pipe, DN 80  Safety weld-in socket, beveled 15°, 40 mm for pipe, DN 50	ZU 0754	calibration chamber		
Bellows version for liquid-electrolyte sensors  Adapter for free hose connection PP/EPDM (incl. electric feedback)  PEEK/EPDM (incl. electric feedback)  PEEK/EPDM (incl. electric feedback)  Material Certificate 3.1  Air supply for pressurized sensors, 0.5 4 bars  for pressurized sensors, 1 7 bars  Hose 20 m (extension for ZU 0670)  Flange protectors PEEK/FFKM DN 80  PEEK/FFKM DN 80  PVDF/FFKM DN 100  PVDF/FFKM DN 100  Safety weld-in socket, straight, 40 mm for pipe, DN 50  for pipe, DN 65  for pipe, DN 80  Safety weld-in socket, beveled 15°, 40 mm for pipe, DN 50	ZU 0747	for 20 x 2.5 O-rings	Mounting aid	
Adapter for free hose connection  PP/EPDM (incl. electric feedback)  PEEK/EPDM (without electric feedback)  Material Certificate 3.1  Air supply  for pressurized sensors, 0.5 4 bars  for pressurized sensors, 1 7 bars  Hose  20 m (extension for ZU 0670)  Flange protectors  PEEK/FFKM DN 80  PEEK/FFKM DN 100  PVDF/FFKM DN 80  PVDF/FFKM DN 100  Safety weld-in socket, straight, 40 mm  for pipe, DN 50  for pipe, DN 65  for pipe, DN 80  Safety weld-in socket, beveled 15°, 40 mm  for pipe, DN 50  for pipe, DN 50  for pipe, DN 50  for pipe, DN 50  for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for pipe, DN 50	ZU 0746	for scraper ring		
connection  PP/EPDM (without electric feedback)  PEEK/EPDM (incl. electric feedback)  Material Certificate 3.1  Air supply  for pressurized sensors, 0.5 4 bars  for pressurized sensors, 1 7 bars  Hose  20 m (extension for ZU 0670)  PEEK/FFKM DN 80  PEEK/FFKM DN 100  PVDF/FFKM DN 100  Safety weld-in socket, straight, 40 mm  for pipe, DN 50  for pipe, DN 65  for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for pipe, DN 50	ZU 0739	version for liquid-electrolyte sensors	Bellows	
PP/EPDM (without electric feedback)  PEEK/EPDM (incl. electric feedback)  Material Certificate 3.1  Air supply for pressurized sensors, 0.5 4 bars  for pressurized sensors, 1 7 bars  Hose 20 m (extension for ZU 0670)  Flange protectors PEEK/FFKM DN 80  PEEK/FFKM DN 100  PVDF/FFKM DN 100  PVDF/FFKM DN 100  Safety weld-in socket, straight, for pipe, DN 50  for pipe, DN 65  for pipe, DN 80  for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for pipe, DN 50	ZU 0733	PP/EPDM (incl. electric feedback)	•	
Material Certificate 3.1  Air supply  for pressurized sensors, 0.5 4 bars  for pressurized sensors, 1 7 bars  Hose  20 m (extension for ZU 0670)  Flange protectors  PEEK/FFKM DN 80  PEEK/FFKM DN 100  PVDF/FFKM DN 100  Safety weld-in socket, straight, 40 mm  for tank wall  for pipe, DN 50  for pipe, DN 65  for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for tank wall  for pipe, DN 50	ZU 0734	PP/EPDM (without electric feedback)	connection	
Air supply  for pressurized sensors, 0.5 4 bars  for pressurized sensors, 1 7 bars  20 m (extension for ZU 0670)  Flange protectors  PEEK/FFKM DN 80  PVDF/FFKM DN 100  PVDF/FFKM DN 100  Safety weld-in socket, straight, 40 mm  for tank wall  for pipe, DN 50  for pipe, DN 80  for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for tank wall  for pipe, DN 50  for pipe, DN 100  For tank wall  for pipe, DN 50	ZU 0742	PEEK/EPDM (incl. electric feedback)		
Flange protectors  PEEK/FFKM DN 80  PEEK/FFKM DN 100  PVDF/FFKM DN 100  PVDF/FFKM DN 100  Safety weld-in socket, straight, 40 mm  For pipe, DN 50  for pipe, DN 80  for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  For pipe, DN 50  for pipe, DN 50  for pipe, DN 100  For tank wall  for pipe, DN 100  For tank wall  for pipe, DN 100  For pipe, DN 100  For pipe, DN 50	ZU 0708	Material Certificate 3.1		
Hose  20 m (extension for ZU 0670)  PEEK/FFKM DN 80  PEEK/FFKM DN 100  PVDF/FFKM DN 100  PVDF/FFKM DN 100  Safety weld-in socket, straight, 40 mm  for pipe, DN 50 for pipe, DN 65 for pipe, DN 80  Safety weld-in socket, beveled 15°, 40 mm  for pipe, DN 50	ZU 0670/1	for pressurized sensors, 0.5 4 bars	Air supply	
Flange protectors  PEEK/FFKM DN 80  PVDF/FFKM DN 100  PVDF/FFKM DN 100  Safety weld-in socket, straight, 40 mm  for pipe, DN 50  for pipe, DN 65  for pipe, DN 80  for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for pipe, DN 50  for pipe, DN 50  for pipe, DN 50  for pipe, DN 50	ZU 0670/2	for pressurized sensors, 1 7 bars		
PEEK/FFKM DN 100  PVDF/FFKM DN 80  PVDF/FFKM DN 100  Safety weld-in socket, straight, 40 mm  for pipe, DN 50  for pipe, DN 65  for pipe, DN 80  for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for pipe, DN 50  for pipe, DN 50  for pipe, DN 50	ZU 0713	20 m (extension for ZU 0670)	Hose	
PVDF/FFKM DN 80  PVDF/FFKM DN 100  Safety weld-in socket, straight, 40 mm  for tank wall for pipe, DN 50 for pipe, DN 80 for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for pipe, DN 50 for pipe, DN 50 for pipe, DN 50	ZU 0755	PEEK/FFKM DN 80	Flange protectors	
Safety weld-in socket, straight, 40 mm  for tank wall for pipe, DN 50  for pipe, DN 65 for pipe, DN 80 for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for tank wall for pipe, DN 50 for pipe, DN 50 for pipe, DN 50	ZU 0756	PEEK/FFKM DN 100		
Safety weld-in socket, straight, 40 mm  for pipe, DN 50  for pipe, DN 65  for pipe, DN 80  for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for tank wall  for pipe, DN 50  for pipe, DN 50  for pipe, DN 50	ZU 0757	PVDF/FFKM DN 80		
40 mm  for pipe, DN 50  for pipe, DN 65  for pipe, DN 80  for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for pipe, DN 50  for pipe, DN 50  for pipe, DN 65	ZU 0758	PVDF/FFKM DN 100		
for pipe, DN 50  for pipe, DN 65  for pipe, DN 80  for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for pipe, DN 50  for pipe, DN 50	ZU 0717	for tank wall	Safety weld-in socket, straight,	
for pipe, DN 80  for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for pipe, DN 50  for pipe, DN 65	ZU 0717/DN50	for pipe, DN 50	40 mm	
for pipe, DN 100  Safety weld-in socket, beveled 15°, 40 mm  for pipe, DN 50 for pipe, DN 65	ZU 0717/DN65	for pipe, DN 65		
Safety weld-in socket, beveled for tank wall for pipe, DN 50 for pipe, DN 65	ZU 0717/DN80	for pipe, DN 80		
15°, 40 mm for pipe, DN 50 for pipe, DN 65	ZU 0717/DN100	for pipe, DN 100		
for pipe, DN 65	ZU 0718	for tank wall		
	ZU 0718/DN50	for pipe, DN 50	15°, 40 mm	
for pipe, DN 80	ZU 0718/DN65	for pipe, DN 65		
, ,	ZU 0718/DN80	for pipe, DN 80		
for pipe, DN 100	ZU 0718/DN100	for pipe, DN 100		

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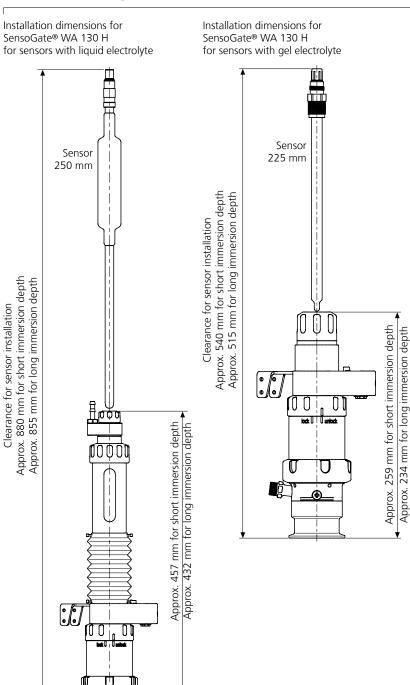
### SensoGate® WA 130 H for hygienic applications

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
	Н	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
	Н	FFKM/FFKM	ZU 0769
	H	FFKM/FFKM	ZU 0769

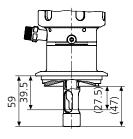
Spare Parts		Order No.
Immersion tube, short	1.4404	ZU 0764

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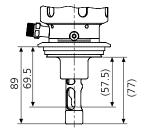
#### **Dimension Drawings**



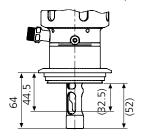
SensoGate® WA 130 H Process adaptation for Varivent DN 50, short immersion depth



SensoGate® WA 130 H Process adaptation for Varivent from DN 80, long immersion depth



SensoGate® WA 130 H Process adaptation for Varivent from DN 65, short immersion depth



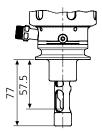
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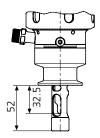
### SensoGate® WA 130 H for hygienic applications

#### **Dimension Drawings** – continued

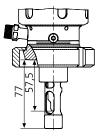
SensoGate® WA 130 H Process adaptation for TriClamp 2" ... 3.5", long immersion depth



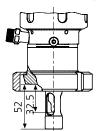
SensoGate® WA 130 H Process adaptation for TriClamp 1" ... 3.5", short immersion depth



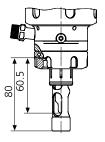
SensoGate® WA 130 H Process adaptation for dairy pipe DN 11851 DN 50 ... 100, long immersion depth



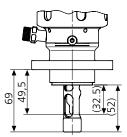
SensoGate® WA 130 H Process adaptation for dairy pipe DN 11851 DN 50 ... 100, short immersion depth



SensoGate® WA 130 H Process adaptation for Ingold socket, 25 mm



SensoGate® WA 130 H Process adaptation for BioControl DN 50/DN 65



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