



SensoGate WA 133

Pneumatic Retractable Fitting with Maximum Resistance For Process Applications.

Variable and Affordable

Based on the proven SensoGate modular design principle, the WA 133 retractable fitting is perfectly suited to applications that do not require completely automated control with central media routing but still want to make use of superior SensoGate technology. SensoGate WA 133 is ideal for automatic or semi-automatic connections to commercially available or customer-developed control units.

Custom Solutions

The design of the cost-efficient SensoGate WA 133 models is scalable to meet 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. This can easily be done under process pressures as high as 6 bar. The fitting adapts perfectly to the application and can even be adapted later to changed conditions.

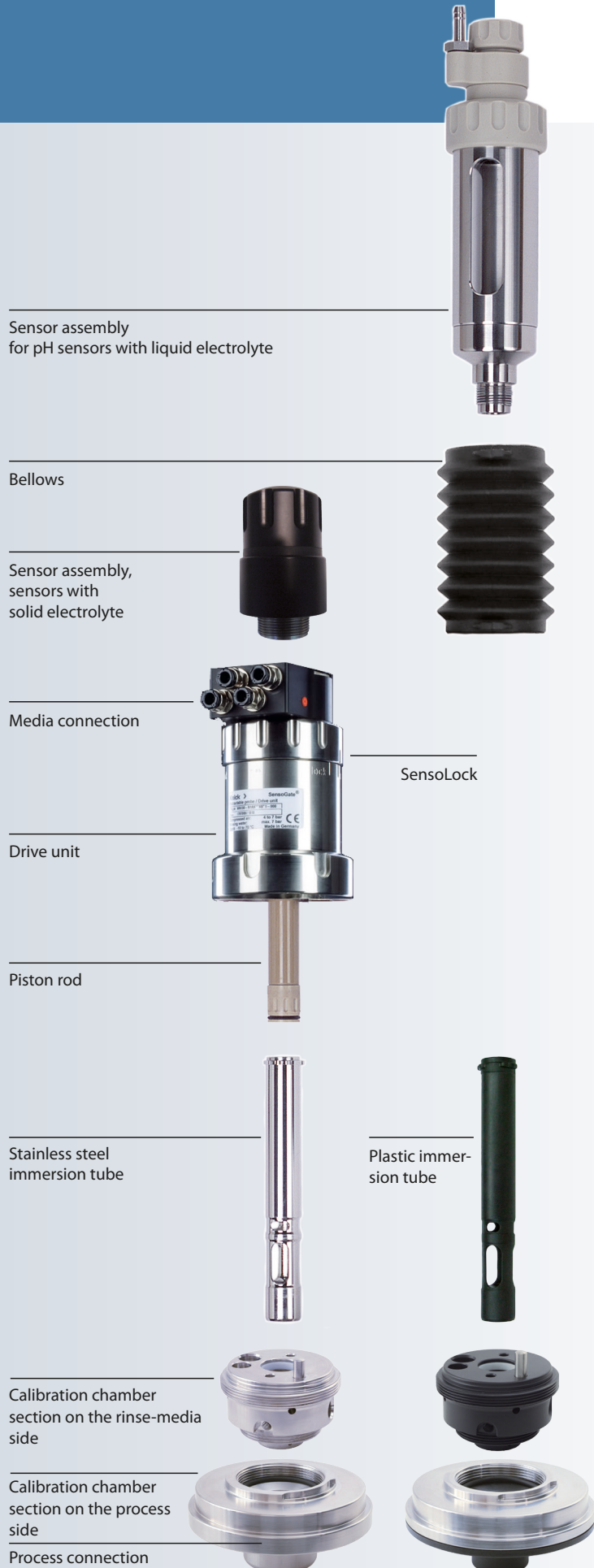
Easy Retrofits

If a further process connection, for example, is required at a future date, it can be easily retrofitted by simply replacing the relevant module. A switch from metal to plastic or a switch to electrodes with a store of liquid electrolyte is possible – one big advantage of the SensoGate modular design. The patented lock-gate function, i.e., the reliable shut-off to the process even during movement, is always active. This is a one-of-a-kind functionality for retractable fittings.

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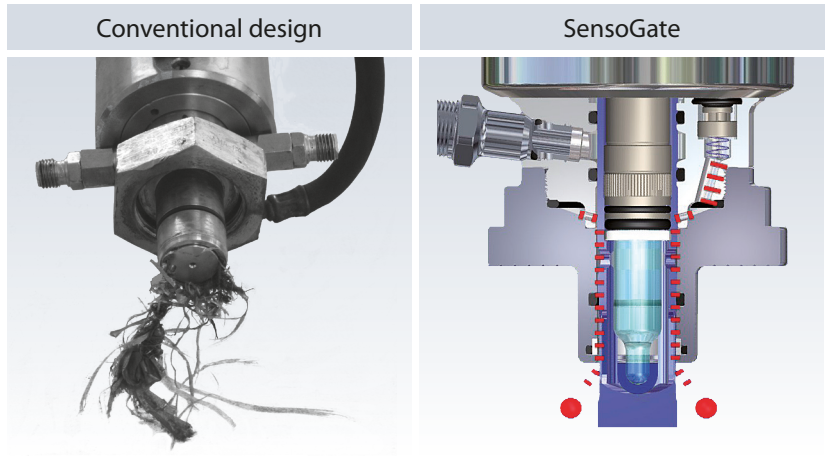
Facts and Features

- Compact, smooth, and dirt-resistant design
- Minimum maintenance costs and maximum flexibility thanks to completely modular design
- Easy gasket replacement with split calibration/rinsing chambers
- Increased life and reduced gasket wear
- ATEX approval II 1 GD c II for the complete fitting
- Cost reduction with simple installation, operation, and maintenance
- Very high availability
- Protective rinsing of gaskets for long life
- SensoLock for high safety of operation
- Integrated check valves and limit switches
- Quick and easy replacement of calibration chamber and immersion tube
- All maintenance work possible 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 direct replacement of wetted materials PEEK, PVDF, PP, 1.4571, Hastelloy.
- Plastic versions with high pressure and temperature resistance due to carbon-fiber-reinforced material
- Special version for sensors with pressurizable liquid electrolyte



Reduced Wear

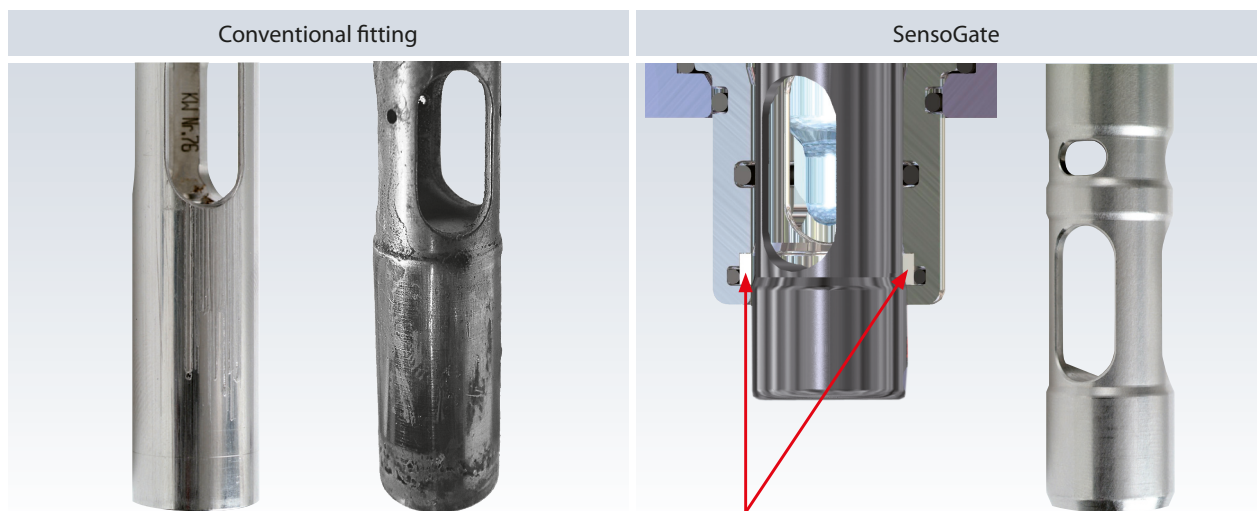
The completely new lock-gate principle reliably seals off the process in every situation and provides an additional sealing water function – without external non-return valves. Since the outlet is shut off during probe movement, supplied rinse water flows over the gaskets toward the process. On retraction, the sealing water prevents fibers or particles from being drawn in with the immersion tube, thus protecting the gaskets. Prestressed scraper rings remove deposits before they reach the gaskets.



Particles pulled in on retraction of the immersion tube

Sealing water to prevent ingress

Immersion Tube Continuous Duty



A conventional immersion tube following continuous duty: ridging and deposits

A prestressed scraper ring prevents the formation of ridging and deposits

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Specifications

Permissible process pressure and temperature during movement	6 bar (at 0 ... 40 °C) 6 bar (0 ... 40 °C), falling linearly to 3 bar (100 °C) 3 bar (max. 1 hour) at 135 °C	
Permissible pressure for probe control	4 ... 7 bar	
Permissible rinsing pressure and temperature	6 bar (at 5 ... 90 °C)	
Ambient temperature	-10 ... +70 °C	
Protection	IP 66	
Housing material	Stainless steel A2/PP or PEEK	
Quality of compressed air	Standard Quality class Solid contaminants Water content for temperatures > 15 °C Water content for temperatures 5 ... 15 °C Oil content	According to ISO 8573-1:2001 3.3.3 or 3.4.3 3 (max. 5 µm, max. 5 mg/m ³) Class 4, pressure dew point 3 °C or below Class 3, pressure dew point -20 °C or below Class 3 (max. 1 mg/m ³)
Sensors	with solid electrolyte with liquid electrolyte	Ø 12 mm, length 225 mm with temperature detector, thread PG 13.5 Ø 12 mm, length 250 mm with temperature detector
Process connections	Flanges, EN 1092-1 Flanges, ANSI B 16.5 Flange bushings, suitable for sight glasses acc. to DIN 3237 Part 2 Loose flange 1.4571 for flat glass flange	DN 32 ... 100 1 ½" to 3" from DN 40 DN 40/DN 50
Connections	Inlet Outlet For pressurized sensors For compressed air (retractable fitting control air)	G ½" female thread with hose coupling for hose; outer Ø 6 mm, inner Ø 4 mm G ½" female thread with hose coupling for hose; outer Ø 8 mm, inner Ø 6 mm Hose connection NW 6 mm, pressure in calibration chamber 0.5 ... 1 bar above process pressure (max. 7 bar) Pneumatic hose push-in fitting Ø 6 mm
Immersion depths/dimensions	See dimension drawings	
Wetted materials	PEEK (natural)	

Specifications for Use in Hazardous Locations

EU Type Examination Certificate	KEMA 04ATEX4035X
ATEX marking	II 1 GD c II
Ambient temperature	-10 ... +70 °C
Process pressure	Max. 6 bar
Process temperature	0 ... 120 °C (plastic)
Special conditions	None

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Product Line

Accessories		Order No.
Service set	Basic	ZU 0680
Sensor spanning wrench, 19 mm		ZU 0647
Bellows (version for liquid-electrolyte sensors)		ZU 0739
Protective cap (version for sensors with polymer electrolyte)		ZU 0759
Air supply for pressurized sensors, 0.5 ... 4 bar		ZU 0670/1
Air supply for pressurized sensors, 1 ... 7 bar		ZU 0670/2
Hose, 20 m (extension for ZU 0670)		ZU 0713
Electrical limit switch with plug-in adapter		ZU 0859

Check Valve

 RV01- 

Housing material, valve body	Stainless steel 1.4404	H			
	PEEK	E			
Gasket material	FKM	A			
	EPDM	B			
	FFKM	C			
	FKM FDA	F			
	EPDM FDA	E			
	FFKM FDA	H			
Inlet connection, female thread	G $\frac{1}{4}$		4		
	G $\frac{1}{8}$		8		
Outlet connection, male thread	G $\frac{1}{4}$			4	
	G $\frac{1}{8}$			8	

Gaskets

Set	Contact (process/rinse medium)	Order No.
A/1	FKM	ZU 1022/1
A/2	FKM / FKM	ZU 1022/2
B/1	EPDM	ZU 1023/1
B/2	EPDM / EPDM	ZU 1023/2
E/1	EPDM FDA	ZU 1024/1
E/2	EPDM FDA / EPDM	ZU 1024/2
H/1	FFKM FDA	ZU 1026/1
H/2	FFKM FDA / FFKM FDA	ZU 1026/2
K/1	FFKM	ZU 1027/1
K/2	FFKM / FFKM	ZU 1027/2

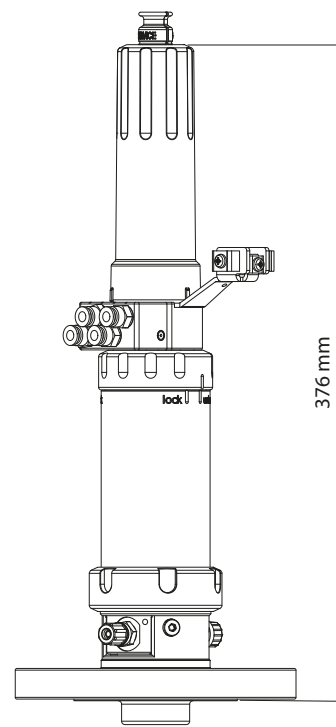
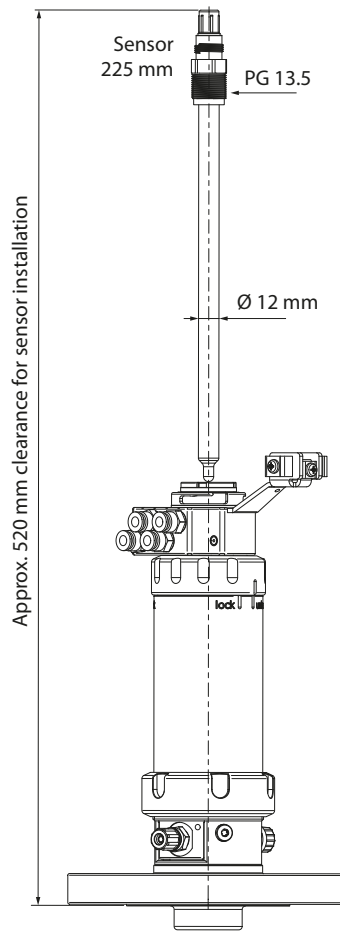
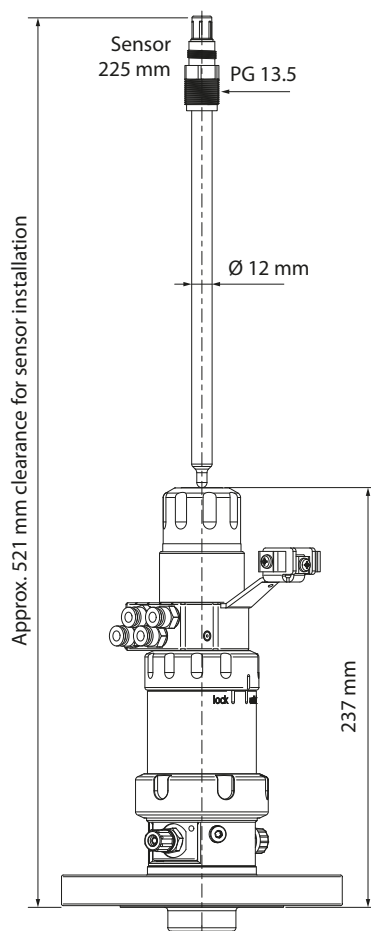
Spare Parts

		Order No.
Immersion tube, short	PTFE	ZU 1032
Immersion tube, long	PTFE	ZU 1033

Dimension Drawings

Installation dimensions WA 133
Short immersion depth for sensors with solid electrolyte

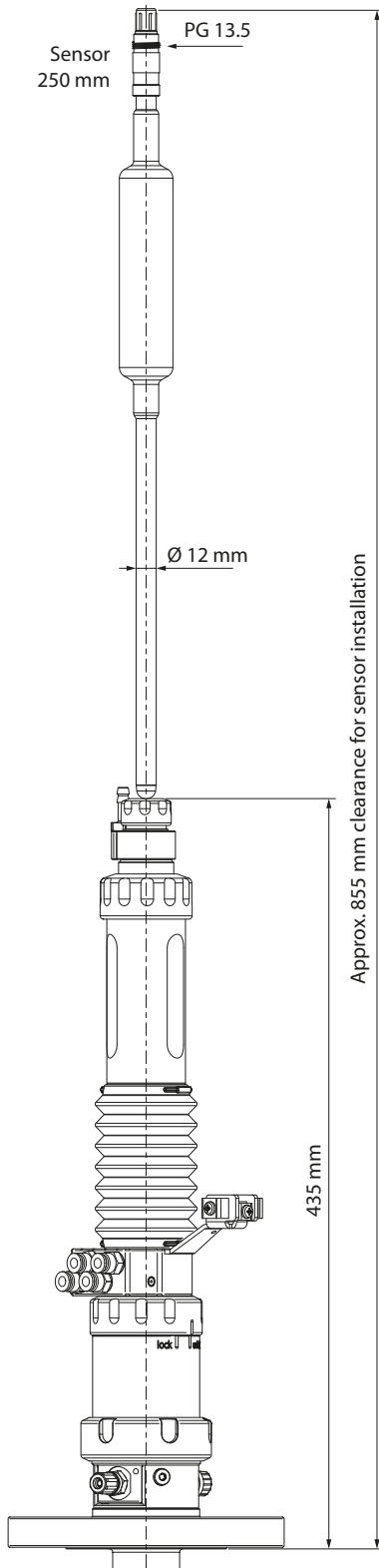
Installation dimensions WA 133
Long immersion depth for sensors with solid electrolyte



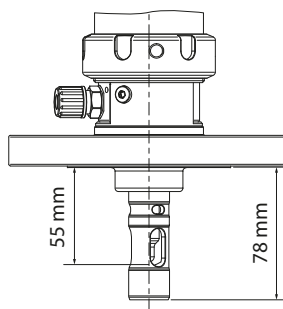
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Dimension Drawings

Installation dimensions WA 133
for sensors with liquid electrolyte



SensoGate WA 133
Loose flange process connection
DN 32 ... 100
ANSI 316, 1 1/2" ... 3"
Short immersion depth



SensoGate WA 133
Loose flange process connection
DN 32 ... 100
ANSI 316, 1 1/2" ... 3"
Long immersion depth

