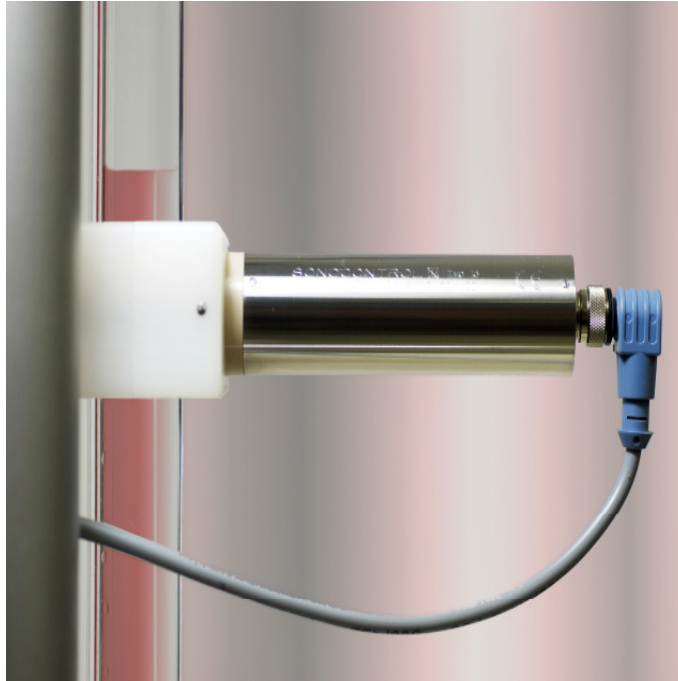


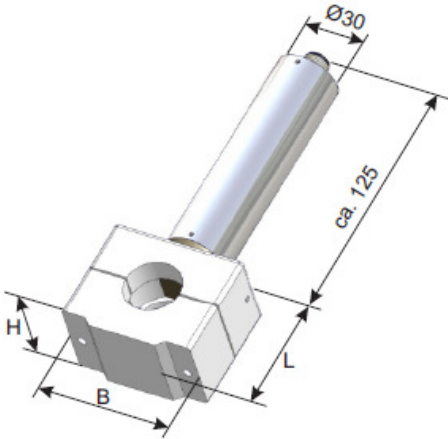
Technical Datasheet

Ultrasonic Limit Switch **SONOCONTROL 15**



Note: This Datasheet explains the standard version of the sensor. For applications in hazardous areas the SONOCONTROL 15 is also available in a different configuration.

System	SONOCONTROL 15
Function	Non-intrusive full/empty limit switch at pipes with smaller nominal diameters (DN8 ... DN50) Application examples: <ul style="list-style-type: none"> • Low level control in chromatography plant systems (HPLC) • Protection against dry running for ultrapure / deionized water supply • Overflow indication at ultrafiltration systems
Measuring principle	Ultrasound through the pipe wall, detected is the complete filling with liquids in the sensor axis; no direct contact between sensor and liquids; no need for constructional changes mounting the sensor at the pipe
Material of the sensor	Stainless steel 1.4301, PEEK
Mounting	PVDF-clamp
Liquids	Water and watery liquids; liquids of low viscosity; Less suitable for: emulsions, dispersions, suspensions, liquids with a lot of bubbles or solids
Material of the pipe	Steel, Stainless steel, plastics, glass, ceramics
Coatings of the pipe	Without coating, galvanized, lacquering, plastic coating, and the like
Teach-in	The sensor takes the characteristics of the pipe in the empty and in the filled condition (in this order), triggered by an operating magnet.

Mounting at the pipe / dimensions	<p>Together with a coupling putty the sensor is mounted laterally at the pipe. The fastening element consists of two parts. Together with the coupling putty, the sensor forms a complex connection around the pipe.</p>  <p>The sensor is available in 3 sizes, which correspond to the different outer pipe diameters. The pipe clamp is delivered in a customized version adapted to the outer pipe diameter (when ordering quote the exact diameter). The given dimension L_{max} applies for the corresponding maximum possible pipe diameter.</p>		
	Size	Order codes	Outer pipe diameter
1	200 01 0163	10 mm ... 23 mm	50 x 40 x 42 mm
2	200 01 0164	>23 mm ... 36 mm	65 x 40 x 58 mm
3	200 01 0165	>36 mm ... 54 mm	80 x 40 x 77 mm
Temperature range	<p>Storage temperature: -40° ... 85 °C Pipe temperature: -40° ... 140 °C Ambient temperature: -40° ... 80 °C (the acceptable pipe temperature and ambient temperature are interdependent)</p>		
Time response / switching delay	<p>Full → empty: 500ms Empty → full: 500ms</p>		
Connection / power supply	<p>4-pole M12 sensor connector (2 contacts connected) Direct current 12-40V, Ripple max. 5 % (peak value: min. 12V, max. 40V)</p>		
Output / switching display	<p>2-wire system (4...20mA concept) The switching status is represented by the current consumption of the sensor. There is no additional switching output. Current consumption: empty: 8mA ± 2% full: 16mA ± 2% error: approx. 22mA failed teach-in: approx. 0,2mA Display: 2 LED (operating state, switching status)</p>		
Accessories	<p>Sensor connector M12x1 (cable length 5m)</p>		