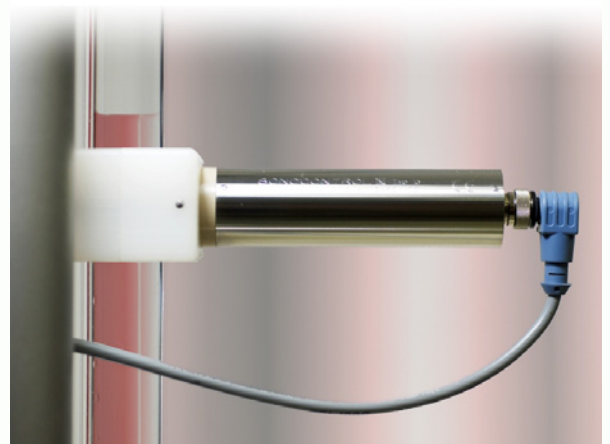


LIMIT SWITCH FOR LIQUIDS IN SMALL DIAMETER PIPES

*contactless
through the wall*

WITH ULTRASOUND



SONOCONTROL 15



*short response time
safe
cost-effective*

LIMIT SWITCH FOR LIQUIDS WITH SMALL NOMINAL PIPE DIAMETERS



With the ultrasonic liquid level switch SONOCONTROL 15 it is possible to detect easily and reliably if a pipeline is full or empty. The filling of the pipeline at the sensor position causes a reliable switching.

The advantages

- Easy installation at the pipe
- Retrofit without process interruption
- Low total costs of the system since no process connections are needed
- Short response time
- No wear and tear
- Quick start-up
- Available for the use in hazardous areas

Application Example

Within the pharmaceutical industry the SONOCONTROL 15 serves as a limit switch detecting if a pipeline with a small nominal pipe diameter is full or empty.

The sensor is mounted sideways at the pipe. After a successful teach-in the sensor distinguishes between liquid and gas/air. The detection point has to be set up on the vertical pipe in order to make sure that in case of a half-filling the switching function is working properly.



SONOCONTROL 15 installed within a pharmaceutical plant

SONOTEC preserves the right to change technical specifications without further notice. (Vers. 02/2013-02-13)

Technical data

Type of instrument	Two-wire-detector as empty/ full limit switch at pipes with small nominal diameters for the detection of liquids and for pump protection
Construction of sensor	Compact sensor
Measuring principle	Ultrasound through the pipe wall, no contact of sensor with the liquid, for mounting no structural changes at the pipes are required
Mounting	PVDF-clamp + couple medium
Material of the pipe	Steel, stainless steel, plastic, glass Outside metallic polished or lacquer
Liquid	Water or water like liquids with low bubble concentration
Temperature range	Pipe temperature: -40°C ... 140°C Ambient temperature: -40°C ... 80°C Storage temperature: -40°C ... 85°C
Power supply for standard version	12 - 40 VDC max. 22 mA, max., max. ripple 5% peak value: maximum 40V
Power supply for the version for hazardous areas	12 - 33 VDC max. 22 mA, max. ripple 5 % peak value: maximum 33 V
Output	Condition is represented by the current draw of the sensor. 2 LED indicators are inside the housing LED - green: power on Power ON: LED on Power OFF or error: LED off LED - yellow: switch condition „full“: LED on, current 16 mA ± 2% „empty“: LED off, current 8 mA ± 2% „error“: LED off, current ca. 22 mA response time: 0.5 s
Connections	4-pole M12 connection (2 contacts connected)
Protection	IP67, water and oil resistant
Ex-protection (optionally)	II2G Ex ib IIC T6 Gb
Housing	Stainless steel and plastics (PEEK), dimensions without mounting: L = 125 mm, Ø = 30 mm
Maintenance	Maintenance-free

Order codes

Order number	Description	External pipe diameter
Standard version		
200 01 0163	1	10 mm ... 23 mm
200 01 0164	2	> 23 mm ... 36 mm
200 01 0165	3	> 36 mm ... 54 mm
200 01 0196	4	> 54 mm ... 63,5 mm
Version for hazardous areas		
200 01 0187	1	10 mm ... 23 mm
200 01 0188	2	> 23 mm ... 36 mm
200 01 0189	3	> 36 mm ... 54 mm
200 01 0197	4	> 54 mm ... 63,5 mm