

SlideControl

Flow monitoring
on air slides



Use

Powdery products are transported in air slides in many industries. Until now it was not possible to continuously get information about the flow.

With SlideControl there is now a sensor available, which monitors the material flow in the slide without any contact.

SlideControl is characterized by the opportunity of an easy and retrofit installation on the air slide.



Function

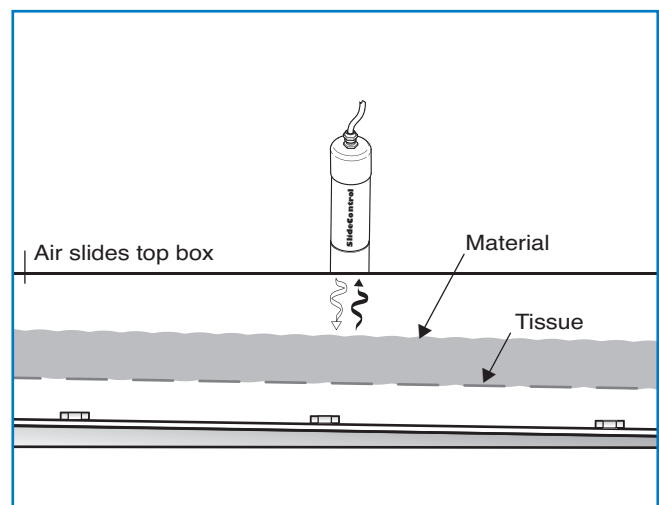
By using microwaves SlideControl measures the distance between the flowing material surface and the sensor and thus the filling height of the flowing material on the tissue.

This filling height is provided as 4 ... 20 mA signal. If it comes to a standstill or demolition of the conveying, the output signal immediately drops to 4 mA, even if the material is still in the slide.

When using the appropriate correction factors, a signal for the flow rate can be generated.

The velocity of the material flow is assumed to be constant.

Parameters as the slide wide or the density of the material are typed into the transmitter by software.



System

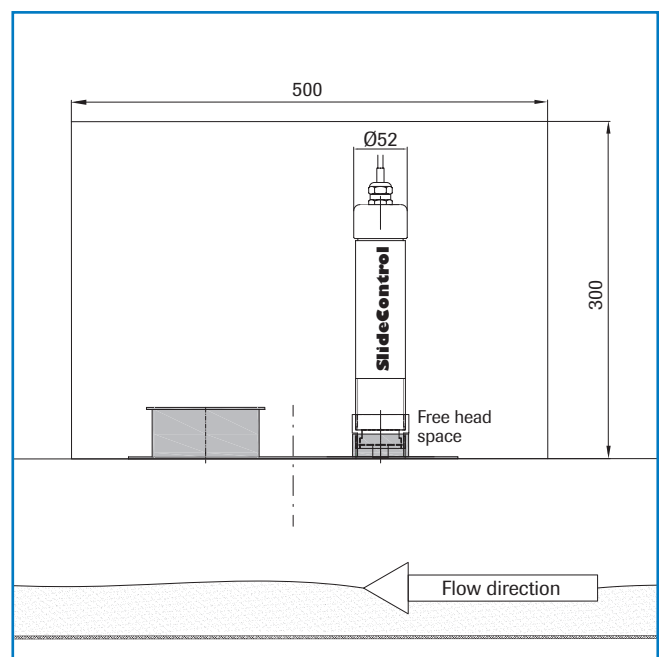
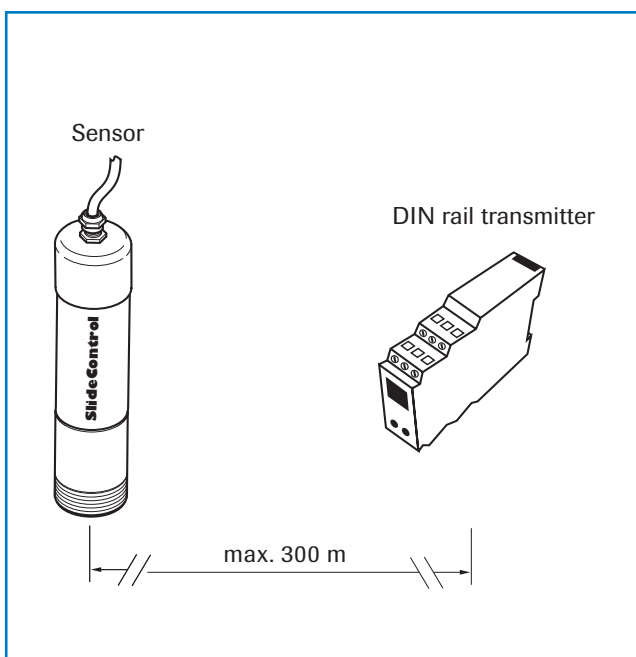
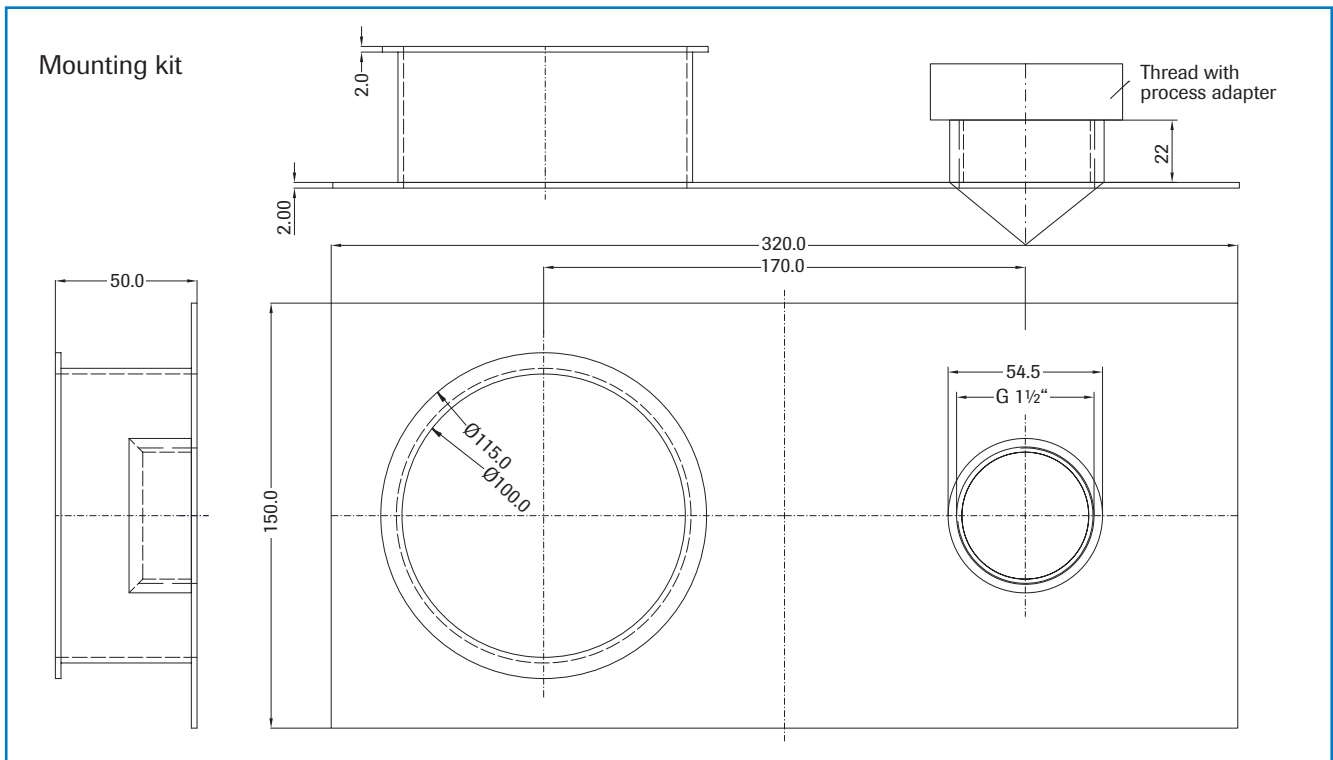
SlideControl consists of a sensor, the associated transmitter and a mounting kit.

The maximum distance between sensor and transmitter may be up to 300 m.

The sensor doesn't need any additional auxiliary power supply. It is powered by the transmitter.

The associated transmitter is available as DIN rail version or in a field-enclosure with display.

The mechanic installation occurs through the mounting plate, which has a 1 ½" process connection for the sensor and a second closable opening for inspection and calibration purposes.





Technical data

Sensor	
Housing material	Stainless steel 1.4571
Protection type	IP 65
Process temperature	-20 ... +80 °C -20 ... +220 °C (with process-adapter)
Ambient temperature	-20 ... +60 °C
Working pressure	Max. 1 bar
Power supply	18...24 V DC / AC powered by transmitter
Measuring frequency	24.125 GHz; ± 100 MHz
Transmitting power	Max. 5 mW
Weight	1.0 kg
Dimensions	Enclosure: length of 216 mm / diameter of 52 mm Thread: length of 30 mm / diameter of G 1½"

Transmitter (DIN Rail)	
Power supply	24 V DC ± 10 %
Power consumption	20 W / 24 VA
Protection type	IP 40 to EN 60 529
Ambient operating temperature	-10 ... +45 °C
Dimensions	23 x 90 x 118.8 mm (W x H x D)
Weight	Approx. 172 g
Screw terminals	0.2 ... 2.5 mm ² [AWG 24 - 14]
Current output signal	4 ... 20 mA (0 ... 20 mA), load < 500 Ω
Alarm output	Relay with switchover contact Max. 250 V AC, 1 A
Digital interface	ModBus RTU, RS 485, RS 232C
Data storage	Flash memory

