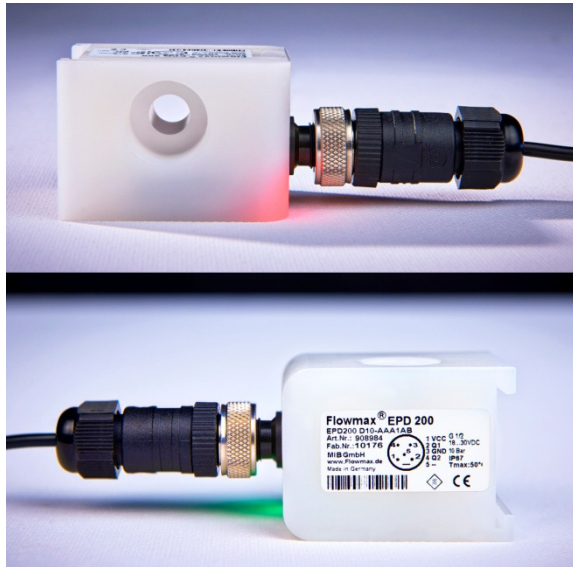


# Ultrasonic Empty Pipe Detection

Flowmax® EPD 200



Flowmax EPD 200 is an empty pipe detection for use in conductive and nonconductive liquids. It is suitable as a pump protection against dry running, as a signal transmitter for 3-way-valves for switching barrels, as liquids watchman or limit switches.

Based on the ultrasonic technology Flowmax EPD 200 is able to measure conductive and nonconductive liquids contactfree. Flowmax EPD 200 has no moving parts and is absolutely free of wear.

All parts having contact to the medium are PE-HD. Flowmax EPD 200 can be used by DI-water to alkaline, toxic and/or aggressive media.

The switching output is simultaneously as npn- (0V) und pnp- (24V) output.

Additionally the state is signaled by colored LEDs: green = pipe full, red = empty pipe

The process line is adapted via the device-side inner thread G1/2, for example suitably constructed with tube nozzle.

SI 003E/EPD200/04.17

## Housing

Material	PE-HD (Polyethylene), others on request
Protection class	IP67
Medium temperature [°C]	-10°...50°C
Nominal diameter [DN]	6, 10
Nominal pressure max. [bar]	10
Process connection	inner thread G½
Dimensions L/W/H [mm]	55/36/42
Weight	130 g

## Electronics

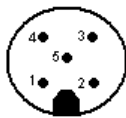
Power supply	24VDC, ca. 1W
Electrical connection	M12-plug, 5-pin
Display	1 LED green for pipe full 1 LED red for empty pipe
Outputs	2 digital outputs, simultaneously pnp- and npn-output

Fixing 35mm-DIN rail or directly in the tube hanging without load design

## Behavior of outputs

	LED green	LED red	Out 1 (pnp)	Out 2 (nnp)
pipe full	on	off	Vcc	GND
empty pipe	off	on	high resistance	high resistance

## PIN assignment



Pin code: Connection plug

PIN	Function	Description
1	L+	Power supply: 18...30 VDC
2	Q1	Switching output Q1, pnp-transistor, closes at full pipe against Vcc
3	GND	Ground 0V
4	Q2	Switching output Q2, npn-transistor, closes at full pipe against GND
5	--	Not used

## Further information:

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Technical subjects to be changed!