

Radar Level Transmitter (HART)

589125 (46931-10)

FESTO

LabVolt Series

Datasheet



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General Description

The Radar Level Transmitter is a level measurement device using electromagnetic waves to detect the level of liquid in the column of the Pressure, Flow, Level, and Temperature Process Training Systems. The Radar Level Transmitter includes a horn antenna to direct the signal and a transmitter supporting either the HART or FOUNDATION Fieldbus communication protocols. The device can be configured manually via its alphanumeric display and push-buttons, but as it is difficult to efficiently program the transmitter's advanced functions on the device's display, acquiring a Software Configurator (Model 46982) is required.

The Radar Level Transmitter is a noncontact sensor, in the industry it is usually used in corrosive environments. Changes in the density, conductivity, and composition of the process fluid do not affect this sensor.

Available Radar Level Transmitters:

- 46931-1: Radar Level Transmitter (HART)
- 46931-D: Radar Level Transmitter (FOUNDATION Fieldbus)

List of Manuals

Description

Manual number

Radar Level Transmitters (Workbook)	589760 (52200-00)
Radar Level Transmitters (Workbook (Instructor))	589762 (52200-10)

Table of Contents of the Manual(s)

Radar Level Transmitters (Workbook) (589760 (52200-00))

- 1 Fundamentals of Radar Level Transmitters

Specifications

Parameter	Value
Model	Micropilot FMR51
Communication Protocol	HART
Ratings	
Power Input	24 V dc
Operating Frequency	~26 GHz
Measured Variable	Level (via time-of-flight)
Accuracy	±2 mm
Sensor Operating Temperature	-40°C to 80°C (-40°F to 176°F)
Process Temperature	-196°C to 450°C (-321°F to 842°F)
Sensor Operating Pressure	Vacuum to 16000 kPa (Vacuum to 2320 psi)
Blocking Distance	200 mm (7.9 in)

Reflecting the commitment of Festo Didactic to high quality standards in product, design, development, production, installation, and service, our manufacturing and distribution facility has received the ISO 9001 certification.

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