SIEMENS

Datasheet for

SITRANS Probe LU240 Ultrasonic level transmitter ideal for level, volume, and volume flow measurements. It works with liquids, slurries, and bulk materials up to 12 m (40 ft).

Ordering data: **7ML51101EF074AF3**

General

Manufacturer	Siemens
Supplier	Siemens
Product designation	Ultrasonic level meter
Brand name	SITRANS Probe LU240
Type designation	SITRANS Probe LU240 Ultrasonic level transmitter ideal for level, volume, and volume flow measurements. It works with liquids, slurries, and bulk materials up to 12 m (40 ft).
Net weight	1.25 kg
Slogan	The ultrasonic level transmitter for all level, volume and volume flow demands and every challenging environment.

Mode of operation and application

Measuring principle	ultrasonic
Operating frequency of the sensor	54 kHz
Beam angle	10 Degree

Input

Measurand	Level, Volume, Volume flow

Measuring range

Measuring range	0.2 m...6 m
Measuring range	-40 °C...+85 °C
Temperature compensation	
Temperature compensation, minimum	-40 °C
Temperature compensation, maximum	85 °C

Output

Current output

Number of outputs	1
Signal range	4 ... 20 mA
Failure signal (minimum)	3.55 mA
Failure signal (maximum)	22.8 mA

Operating conditions

Medium temperature	-40 °C...+85 °C
Degree of pollution	Pollution degree 4
Standard for the degree of pollution	IEC 61010-1
Overvoltage class	Installation category I
Standard for the overvoltage class	IEC 61010-1

Pressure

Operating pressure, relative	-0.2 bar...0.5 bar

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Environmental conditions

Ambient temperature during operation	-40 °C...+80 °C
Ambient temperature during storage	-40 °C...+85 °C
Ambient temperature during transport	-40 °C...+85 °C
Installation altitude MSL (maximum)	5,000 m
Relative humidity during operation	0
Relative humidity during operation (maximum)	100

Degree of protection

IP rating	IP66, IP68

Electromagnetic compatibility EMC

Standard for EMC	EN 55011, IEC 61326-1

Structural Design

Mechanical design

Design of the device	compact version, sensor integrated

Process connection

Design	male thread
Standard	ISO 228
Nominal size	G 2"

Material

Process connection

Material	Ethylene tetrafluoroethylene (ETFE)

Enclosure

Material	Polybutylene terephthalate (PBT), Polycarbonate (PC)
Material of the lid	Polybutylene terephthalate (PBT), polycarbonate (PC)

Sensor

Material of the sensor	ethylene tetrafluoroethylene (ETFE)
Material of the active surface of the ultrasonic transmitter	Ethylene tetrafluoroethylene (ETFE)

Cable entry & cable gland

Material of the cable entry	polyamide (PA)

Electrical connections

Connection technology	2-wire technology
Potential insulation	galvanic
Potential insulation	to all inputs, to all outputs, to all supplies
Number of cable entries	2
Design of the cable entry	M20 x 1.5
Number of conductors of the connection cable	2

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Display and operating controls

Display	with display
Design of the display	alphanumeric, LCD
Number of digits of the display	5
Operating controls	Pushbutton
Number of controls	4

Power supply

Electrical

Type of power supply	External
Voltage type	DC
Nominal voltage, DC	24 V
Supply voltage, DC	10.5 V...30 V

Communication

Protocol	HART
Protocol version	Version 7
Programming	SIMATIC PDM Software

Certificates and approvals

Verification of suitability	CE, CSA us/c, EAC, KC, RCM

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