

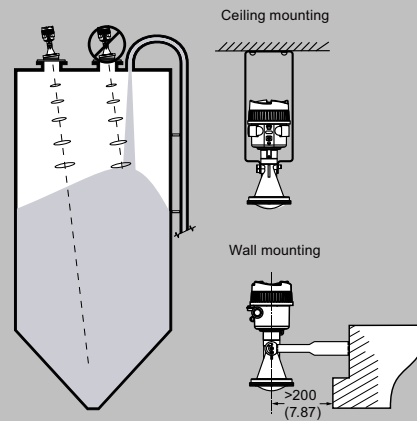
Overview



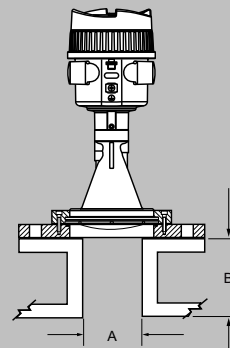
SITRANS LR550 polymeric horn antenna provides continuous monitoring of solids or liquids to a range of 120 m (394 ft). The lightweight design is suitable for open air applications and inventory measurement of basic materials in silos and vessels, or river level monitoring.

Configuration

Installation of SITRANS LR550



SITRANS LR550 nozzle mounting restrictions



Nozzle diameter "A"		Nozzle height "B"	
80 mm	3"	≤400 mm	≤ 15.8"
100 mm	4"	≤500 mm	≤ 19.7"
150 mm	6"	≤800 mm	≤ 31.5"

SITRANS LR550 Nozzle installation

SITRANS LR550

Selection and ordering data

SITRANS LR550 polymeric horn antenna Continuous, non-contact, 120 m (394 ft) range, for solids or liquids.										Article No.
										7ML755 • - • • • 0 • - • • • •
Click on the Article No. for the online configuration in the PIA Life Cycle Portal.										
Communications										
4 ... 20 mA, HART										0
Sealing material of the antenna/process connection										
PP / PP / -40 ... +80 °C (-40 ... +176 °F) ⁷⁾										0
PP / FKM / -40 ... +80 °C (-40 ... +176 °F) ⁶⁾										1
PP / EPDM / -40 ... +80 °C (-40 ... +176 °F) ⁶⁾										2
Process connection type and material										
Universal, plastic horn antenna / PP/PBT										D A
Without flange, with mounting bracket 300 mm / 316/316L										D C
Universal bolted flange 3" 150 lb, DN80 PN16 / PP-GF30										E C
Flange DN100 PN 6, flat face, / PP-GF30										F L
Flange DN100 PN16, flat face, / PP-GF30										F D
Flange DN150 PN16, flat face, / PP-GF30										F E
Flange DN200 PN16, flat face, / PP-GF30										F F
Flange DN250 PN16, flat face, / PP-GF30										F G
Flange 3" 150lb FF, PP-GF30										H C
Flange 4" 150lb FF, PP-GF30										H D
Flange 6" 150lb FF, PP-GF30										H E
Flange 8" 150lb FF, PP-GF30										H F
Flange DN100 10K FF, JIS / PP-GF30										J D
Flange DN150 10K FF, JIS / PP-GF30										J E
Purge (self-cleaning) connection										
No purge connection										0
With purge connection ⁵⁾⁹⁾¹⁰⁾										1
Enclosure										
Single compartment enclosure										4
Type of protection										
Non Ex - General purpose										A
Intrinsically safe Ex ia / IS (Class I, II, III, Division 1) ¹⁾										B
Non-incendive (Class I, Division 2) ²⁾										D
Dust Ignition proof, Ex t / DIP (Class II, Division 1) ¹⁾										M
Electrical connection										
M20										F
½" NPT										K
Local HMI										
None, with blind lid										0
Included, with blind lid										1
Included, with window lid										3

Selection and Ordering data	Order code
Further designs	
Please add "-Z" to Article No. and specify Order code(s).	
Test certificates	
Manufacturer's test certificate M to DIN 55350, Part 18 and to ISO 9000 - performance	C11
Tagging	
Stainless steel tag [69 mm x 50 mm (2.71 x 1.97 inch)]	
Tag (device parameters, max. 27 characters), plate, stainless steel 304/1.4301	Y15

Selection and Ordering data	Order code
Regional Ex Approval ³⁾	
NEPSI (China)	E27
ATEX (Europe) and IECEx (International)	E47
CSA (Canada) and FM (USA)	E48
ATEX (Europe), IECEx (International), CSA (Canada), and FM (USA)	E49
Process connection specials	
Non-return valve for purging air connection ⁸⁾	J01

Selection and ordering data (continued)

Selection and Ordering data	Order code
Operating instructions	
All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation	
Accessories	
Sun shield cover	A5E52107153
AW050 Bluetooth module kit, M20 (General purpose only)	A5E51857118
AW050 Bluetooth module kit, ½" NPT (General purpose only)	A5E52095588
Lightning Arrestor M20	7MF7903-7AB
Lightning Arrestor ½" NPT	7MF7903-7AC
Mounting bracket, 300 mm	A5E52885008
EPDM Aiming Gasket DN80	A5E52607563
EPDM Aiming Gasket DN100	A5E52607570
EPDM Aiming Gasket 3"	A5E52607582
EPDM Aiming Gasket 4"	A5E52607584
SIMATIC RTU3010C compact, remote data manager with alarming	6NH3112-0BA00-0XX0
SIMATIC RTU3030C compact, remote data manager with alarming	6NH3112-3BA00-0XX0
HART modem with USB interface	7MF4997-1DC
Intrinsically Safe barrier	7NG4124-1AA00
SITRANS RD100, loop powered display	7ML5741-.....-
SITRANS RD150, remote digital display for 4 to 20 mA and HART devices	7ML5742-.....-
SITRANS RD200, universal input display with Modbus conversion	7ML5740-.....-

Selection and Ordering data	Order code
SITRANS RD300, dual line display with totalizer and linearization curve and Modbus conversion	7ML5744-.....-
SITRANS LT500, a versatile, single and multi-vessel level monitor/controller for virtually any application in a wide range of industries.	7ML60..-.....-
For applicable back up point level switch - see point level measurement catalog	
Spare parts	
Electronic module, LR530, LR550, LR580, >DN50 / 2 inch, mA/HART	A5E53276249
LR500 lid with window, Non-Exd/XP	A5E53276250
LR500 no window, Non-Exd/XP	A5E53276252
HMI graphical display, with interconnection cable	A5E53276247

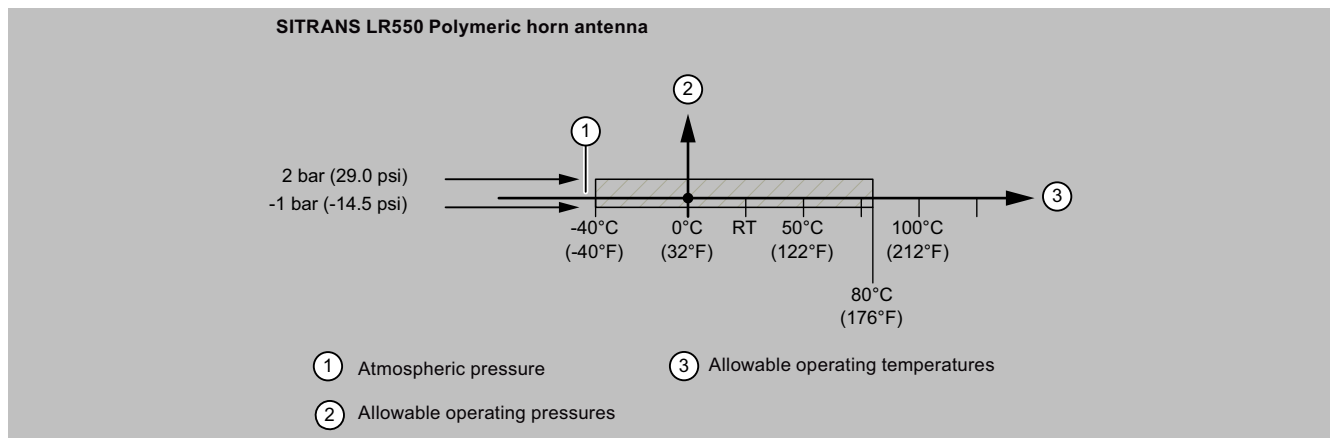
- 1) Available only with one -Z Regional hazardous Approval options.
- 2) Available only with -Z Regional hazardous Approval option E48.
- 3) Not available with Type of Protection option A.
- 4) Must be used with -Z option Y01.
- 5) If selecting Type of Protection options B, C, D, or M, then -Z option J01 must also be selected.
- 6) Not available with Process connection type and material options DA, DC, and EC.
- 7) Available only with Process connection type and material options DA, DC, and EC.
- 8) Available only with Purge connection option 1.
- 9) Not available with Process connection type and material options DA, DC, EC, and HC.
- 10) Only suitable for use with 15 psi or less process pressure applications.

SITRANS LR550

Technical specifications

SITRANS LR550	
Mode of operation	
Recommended measuring range	Beam angle 3°: 120 m (394 ft)
Medium conditions	
Process temperature	• PP lens, PP seal: -40 ... +80 °C (-40 ... +176 °F) • PP lens, FKM seal: -40 ... +80 °C (-40 ... +176 °F) • PP lens, EPDM: -40 ... +80 °C (-40 ... +176 °F)
Process pressure	2 bar max.
Design	
Flange material	PP-GF30
Wetted materials	
• Antenna lens	PP, FKM, or EPDM
• Antenna seal	FKM or EPDM
Wall and ceiling bracket	316/316L stainless steel
Process connections	• DN100 PN 6, flat face • DN100 PN16, flat face • DN150 PN16, flat face • DN200 PN16, flat face • DN250 PN16, flat face • 3" 150lb FF • 4" 150lb FF • 6" 150lb FF • 8" 150lb FF • DN100 10K FF, JIS • DN150 10K FF, JIS

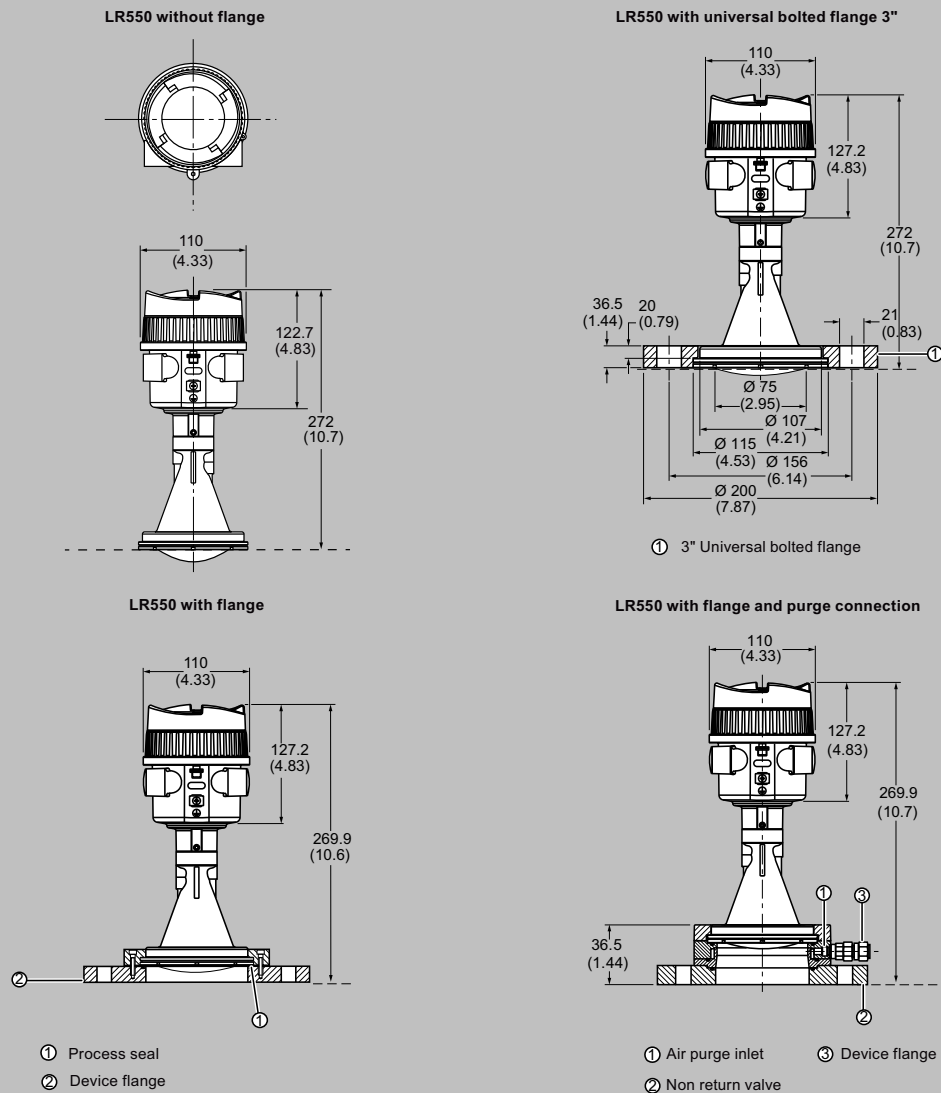
Characteristic curves



SITRANS LR550 Polymeric horn antenna, process pressure/temperature derating curve

Dimensional drawings

SITRANS LR550 Polymeric horn antenna



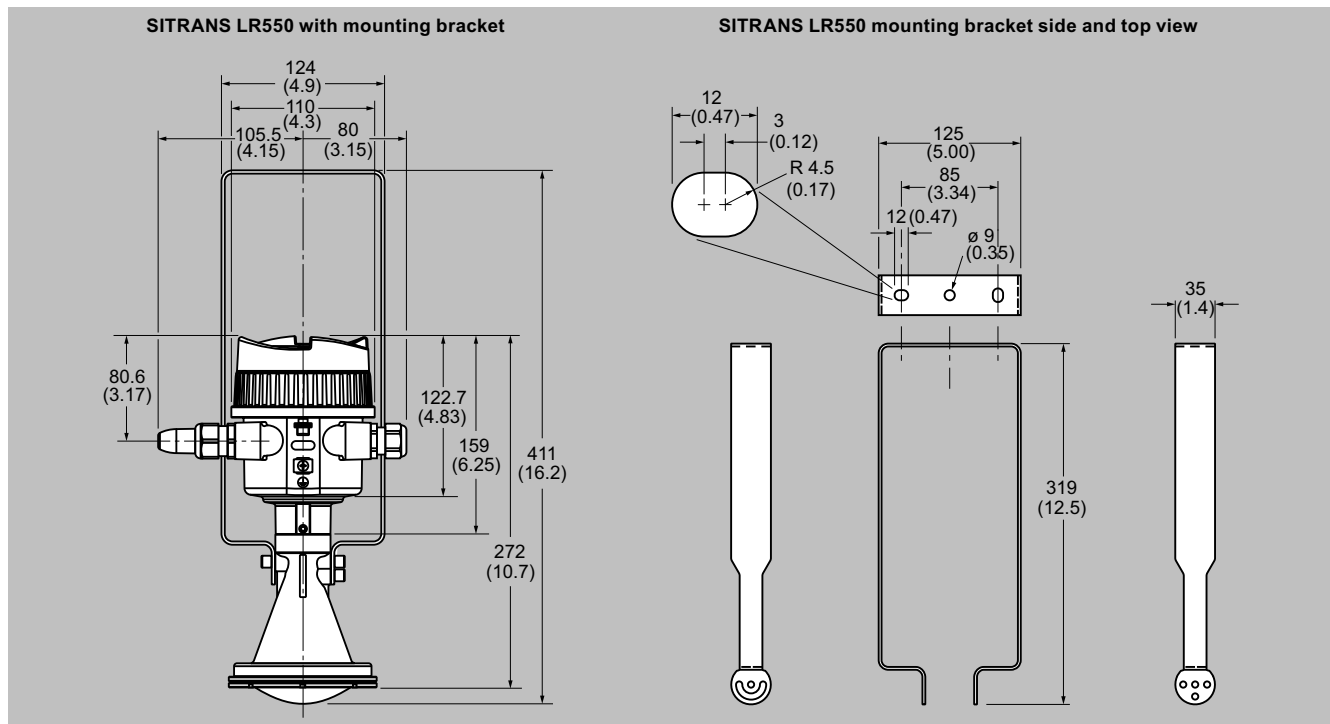
SITRANS LR550 Polymeric horn antenna, dimensions in mm (inch)

SITRANS LR550 with flange

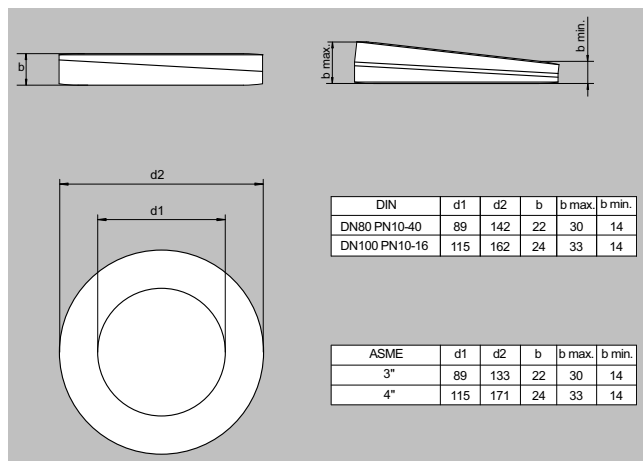
Flange	Flange O.D. [mm (inch)]	Bolt hole circle Ø [mm (inch)]	Bolt hole Ø [mm (inch)]	No. of bolt holes	Flange thickness [mm (inch)]
DN100 PN 6, flat face	210 (8.27)	170 (6.7)	18 (0.71)	4	20 (0.79)
DN100 PN16, flat face	220 (8.99)	180 (7.09)	18 (0.71)	8	
DN150 PN16, flat face	285 (11.22)	240 (9.49)	22 (0.87)	8	
DN200 PN16, flat face	340 (13.38)	295 (11.61)	22 (0.87)	12	
DN250 PN16, flat face	405 (15.94)	355 (13.98)	26 (1.02)	12	
3" 150lb FF	190.5 (7.5)	152.4 (6)	19.1 (0.75)	4	
4" 150lb FF	228.6 (9)	190.5 (7.5)	19.1 (0.75)	8	
6" 150lb FF	279.4 (11)	241.3 (9.5)	22.4 (0.88)	8	
8" 150lb FF	342.9 (13.5)	298.5 (11.75)	22.4 (0.88)	8	
DN100 10K FF, JIS	210 (8.27)	175 (6.89)	19 (0.75)	8	
DN150 10K FF, JIS	280 (11.02)	240 (9.49)	23 (0.9)	8	

SITRANS LR550

Dimensional drawings (continued)



SITRANS LR550 with mounting bracket, dimensions in mm (inch)



SITRANS LR550 EPDM aiming gasket