

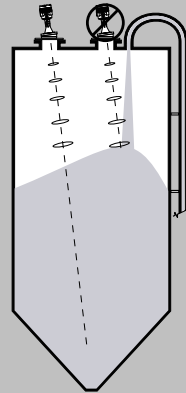
Overview



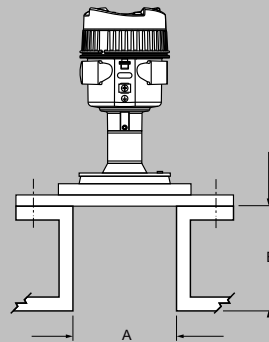
SITRANS LR580 lens antenna provides continuous monitoring of solids or liquids to a range of 120 m (394 ft). The design includes an aimer feature as well as integrated air purge connection for inventory measurement applications in silos. It is also well suited to high temperature applications in the cement and power industries.

Configuration

Installation of SITRANS LR580



SITRANS LR580 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 LR580 Nozzle installation

SITRANS LR580

Selection and ordering data

SITRANS LR580 Flanged lens antenna Continuous, non-contact, 120 m (394 ft) range, for solids or liquids.										Article No.
										7ML758 • - • • • • 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										
PEEK / FKM / -40 ... +150 °C (-40 ... +302 °F)										0
PEEK / FKM / -40 ... +200 °C (-40 ... +392 °F)										1
PEEK / FFKM / -15 ... +250 °C (5 ... +482 °F)										2
Process connection type and material										
<u>Flanges</u>										
DN80 PN16, flat face, 316/316L										P C
DN100 PN16, flat face, 316/316L										P D
DN150 PN16, flat face, 316/316L										P E
3" 150lb, FF, 316/316L										Q C
4" 150lb, FF, 316/316L										Q D
6" 150lb, FF, 316/316L										Q E
DN80 10K, FF, JIS / 316/316L										R C
DN100 10K, FF, JIS / 316/316L										R D
DN150 10K, FF, JIS / 316/316L										R E
<u>Aiming flanges</u>										
Universal DN100/4", 316/316L										E D
Universal DN150/6", 316/316L										E E
Second line of defense (SLOD) gas tight seal										
SLOD not included										0
SLOD included										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⁾⁴⁾										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
Inspection certificate EN 10204-3.1, material	C12
Inspection certificate EN 10204-3.1, material with NACE MR0175 and MR0103	C13
Test report EN 10204-2.2, material	C14
Test report EN 10204-3.1, PMI test - XRF (X-Ray Fluorescence)	C15

Selection and Ordering data	Order code
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
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	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
SITRANS RD100, loop powered display	7ML5741-.....

Selection and Ordering data	Order code
SITRANS RD150, remote digital display for 4 to 20 mA and HART devices	7ML5742-.....
SITRANS RD200, universal input display with Modbus conversion	7ML5740-.....
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) Available only with Second line of defense gas tight seal option 1.

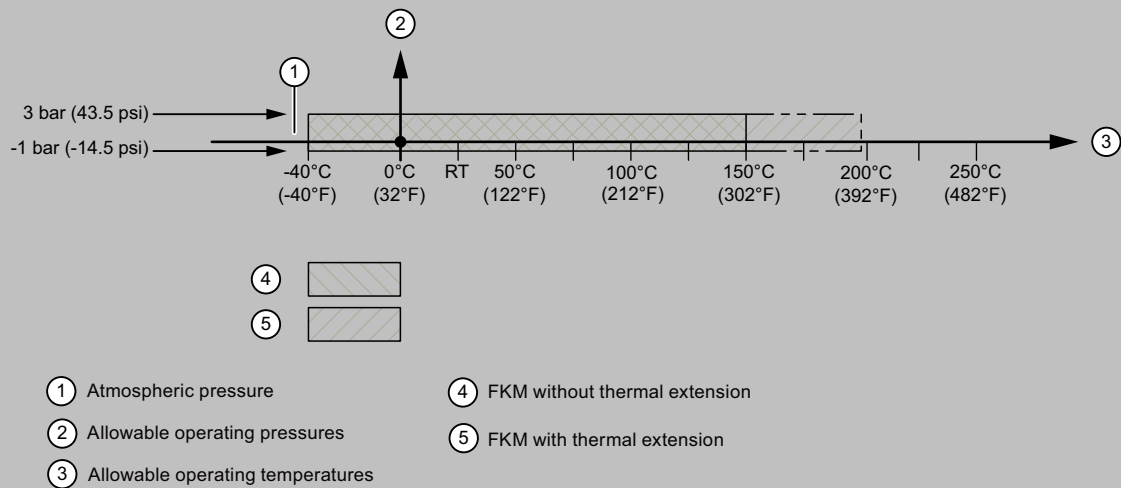
SITRANS LR580

Technical specifications

SITRANS LR580	
Mode of operation	
Recommended measuring range	Beam angle 3°: 120 m (394 ft)
Medium conditions	
Process temperature	• PEEK/FKM: -40 ... +150 °C (-40 ... +302 °F) • PEEK/FKM, thermal extension: -40 ... +200 °C (-40 ... +392 °F) • PEEK/FFKM, thermal extension: -15 ... +250 °C (5 ... +392 °F)
Process pressure	-1 ... 3 bar max.
Design	
Flange material	316/316L
Wetted materials	
• Antenna lens	PEEK
• Antenna seal	FKM/FFKM (Perlast G75B)
Process connections	• DN80 PN16, flat face • DN100 PN16, flat face • DN150 PN16, flat face • 3" 150 lb, flat face • 4" 150 lb, flat face • 6" 150 lb, flat face • DN80 10K, flat face, JIS • DN100 10K, flat face, JIS • DN150 10K, flat face, JIS • Aiming flange universal DN100/4" • Aiming flange universal DN150/6"
EPDM aiming gasket	
Maximum adjustment	8°

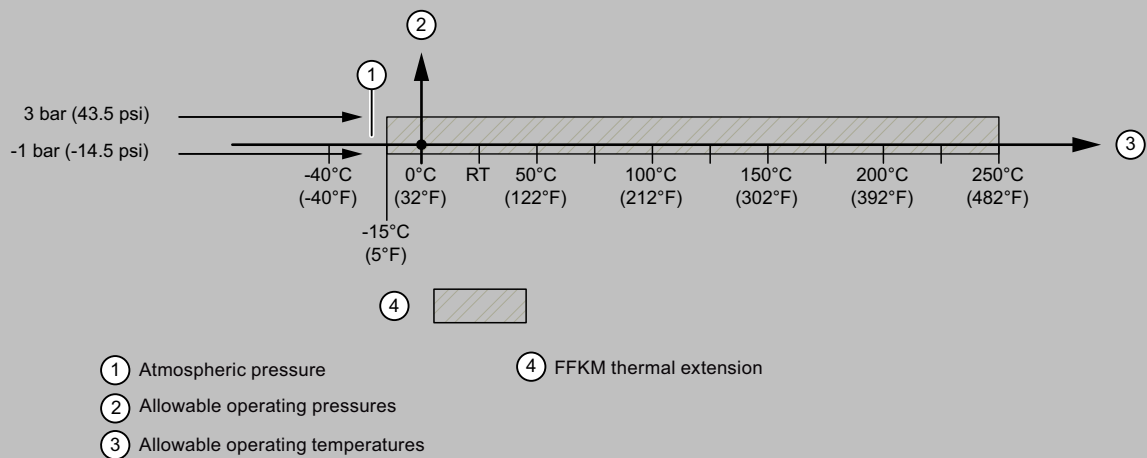
Characteristic curves

SITRANS LR580 Flanged lens antenna, seal options 0 and 1



SITRANS LR580 Flanged lens antenna, process pressure/temperature derating curve, seal options 0 and 1

SITRANS LR580 Flanged lens antenna, seal option 2

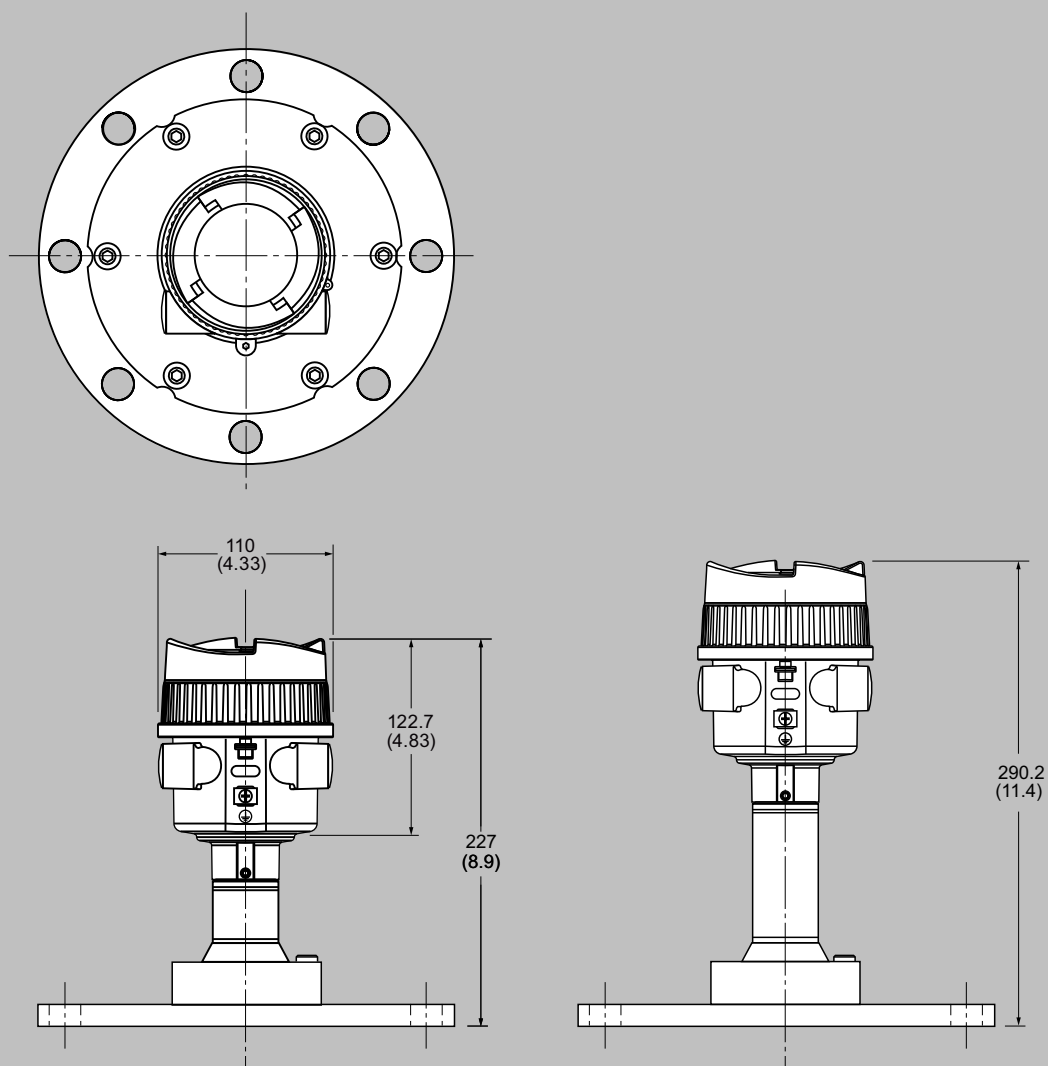


SITRANS LR580 Flanged lens antenna, process pressure/temperature derating curve, seal option 2

SITRANS LR580

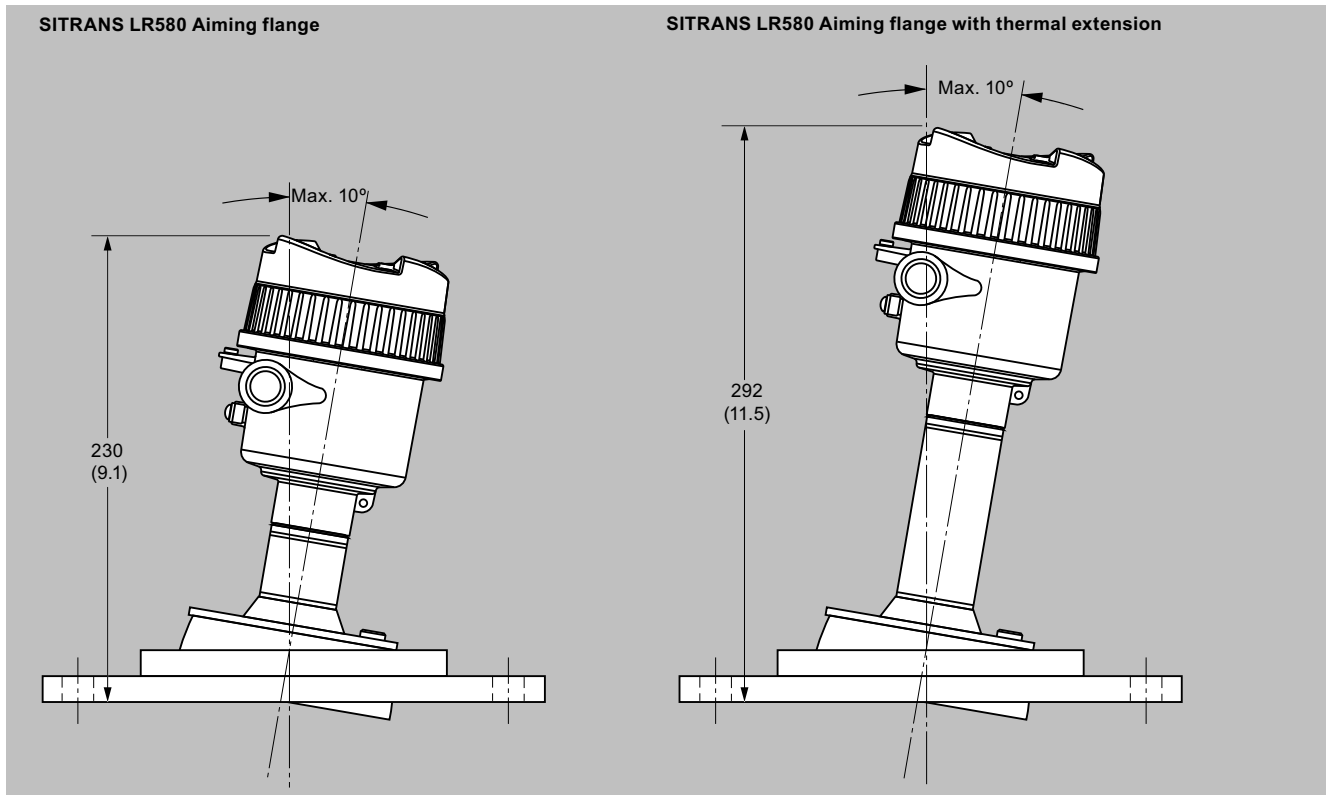
Dimensional drawings

SITRANS LR580 Flat face flanges



SITRANS LR580 Flat face flanges, dimensions in mm (inch)

Dimensional drawings (continued)



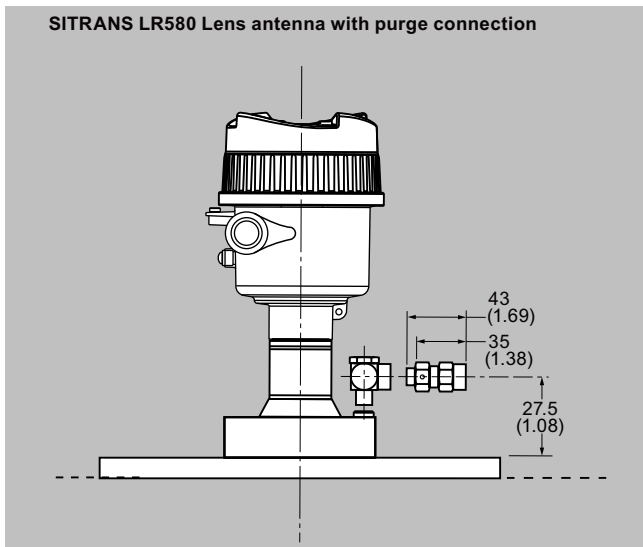
SITRANS LR580 Aiming flanges, dimensions in mm (inch)

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)]
DN80 PN16, flat face	200 (7.87)	160 (6.93)	18 (0.06)	8	11.5 (0.04)
DN100 PN16, flat face	220 (8.66)	180 (7.09)	18 (0.06)	8	
DN150 PN16, flat face	285 (11.22)	240 (9.45)	22 (0.07)	8	
3" 150lb flat face	190.5 (7.5)	152.4 (6)	19.1 (0.06)	4	
4" 150lb flat face	228.6 (9)	190.5 (7.5)	19.1 (0.06)	8	
6" 150lb flat face	279.4 (11)	241.3 (9.5)	22.4 (0.07)	8	
DN80 10K, flat face, JIS	185 (7.28)	150 (5.9)	19 (0.06)	8	
DN100 10K, flat face, JIS	210 (8.27)	175 (6.89)	19 (0.06)	8	
DN150 10K, flat face, JIS	280 (11.02)	240 (9.45)	23 (0.07)	8	
Aiming flange universal DN100/4"	228.6 (9)	175 ... 191	19.1 (0.06)	8	
Aiming flange universal DN150/6"	285 (11.22)	241 (9.49)	24 (0.08)	8	

SITRANS LR580

Dimensional drawings (continued)

SITRANS LR580 Lens antenna with purge connection



SITRANS LR580 Lens Antenna with purge connection, dimensions in mm (inch)