

Overview



The SITRANS RD150 is a remote display for 4 to 20 mA and HART devices.

Benefits

- Ease of use through 4 button menu driven display
- Backlit display
- HART communications
- Flexible mounting options
- Plastic, stainless steel or aluminum housings up to IP68
- Full configuration of connected sensors with optional USB Communicator and PC
- Support for multiple HART sensors with HART Multi-drop

Application

The versatile SITRANS RD150 can be installed remotely from your instrument, providing 4/20 mA or multiple HART variable readings in a safe and convenient location. Easy to use, 4 button, menu driven, display for configuration of HART instruments via standard HART commands and full configuration of connected instruments via USB and computer.

- Key Applications: remotely displays process variables in level, flow, pressure, temperature, and weighing applications, in a 4 to 20 mA HART loop.

Supplementary components

Displays

SITRANS RD150

Selection and ordering data

SITRANS RD150 Display		Article No.	
Remote digital display with configuration for process instruments. HART or 4 to 20 mA loop display, metal and plastic field mount enclosures.		7MLS742- ● ● ● ● ● - ● ● ● ●	
Click on the Article No. for the online configuration in the PIA Life Cycle Portal.			
Approvals			
For Ex-free area	0	A	
ATEX II 1G, 2G Ex ia IIC T6 Ga, Gb ⁴⁾	0	C	
ATEX II 2G Ex db IIC T6 Gb ⁹⁾	0	F	
IEC Ex ia IIC T6 Ga, Gb ⁴⁾	0	J	
IEC Ex db IIC T6 Gb ⁹⁾ ¹⁰⁾	0	M	
cCSA _{US} (IS) Class I, Div. 1, Groups A, B, C, D ¹²⁾	0	N	
cCSA _{US} (XP) Class I, Div. 1, Groups A, B, C, D ⁹⁾ ¹¹⁾	0	R	
Electronics			
Two-wire 4 ... 20 mA/HART		A	
Two-wire 4 ... 20 mA without HART		B	
Housing			
Plastic ¹⁾ ⁴⁾ ⁶⁾			0
Aluminum ²⁾ ⁴⁾ ⁷⁾			1
Stainless steel (precision casting) ²⁾ ⁴⁾ ⁷⁾			2
For panel mounting (72 x 72 mm) ³⁾ ⁵⁾ ⁸⁾			3
Housing protection			
IP66/IP67 NEMA 4X			0
IP66/IP68 NEMA 6P (0.2 bar)			1
IP40 NEMA 2			2
IP40 Type 1			3
Cable entry			
M20 x 1.5/Cable gland PA black (ø5 ... 9 mm), standard			0
M20 x 1.5/Cable gland brass nickel plated (ø6 ... 12 mm)			1
M20 x 1.5/Blind plug			2
M20 x 1.5/Threaded fitting brass nickel-plated; for shielded cable (ø9 ... 13 mm)			3
½" NPT/Blind plug			4
½" NPT/Cable gland PA black (ø5 ... 9 mm)			5
½" NPT/Threaded fitting brass nickel plated (ø6 ... 12 mm)			6
½" NPT/Threaded fitting brass nickel plated; for shielded cable (ø9 ... 13 mm)			7
Without			8
Display			
Without			A
Mounted			B
Mounting			
For wall mounting with aluminum or stainless steel housing			A
For carrier rail and wall mounting with plastic housing			B
For carrier rail with aluminum or stainless steel housing			C
For tube mounting (29 ... 60 mm) incl. mounting material			D
For panel mounting			E
Certificates			
None			0
3.1 Certificate/Instrument with test data			1
Quality and Test plan			2

Selection and ordering data	Article No.
Operating Instructions	
All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation	
Accessories	
USB communicator	A5E35192015
SITRANS LG/SITRANS RD150 sensor display module	A5E34143449

¹⁾ Available only with Housing protection option 0.

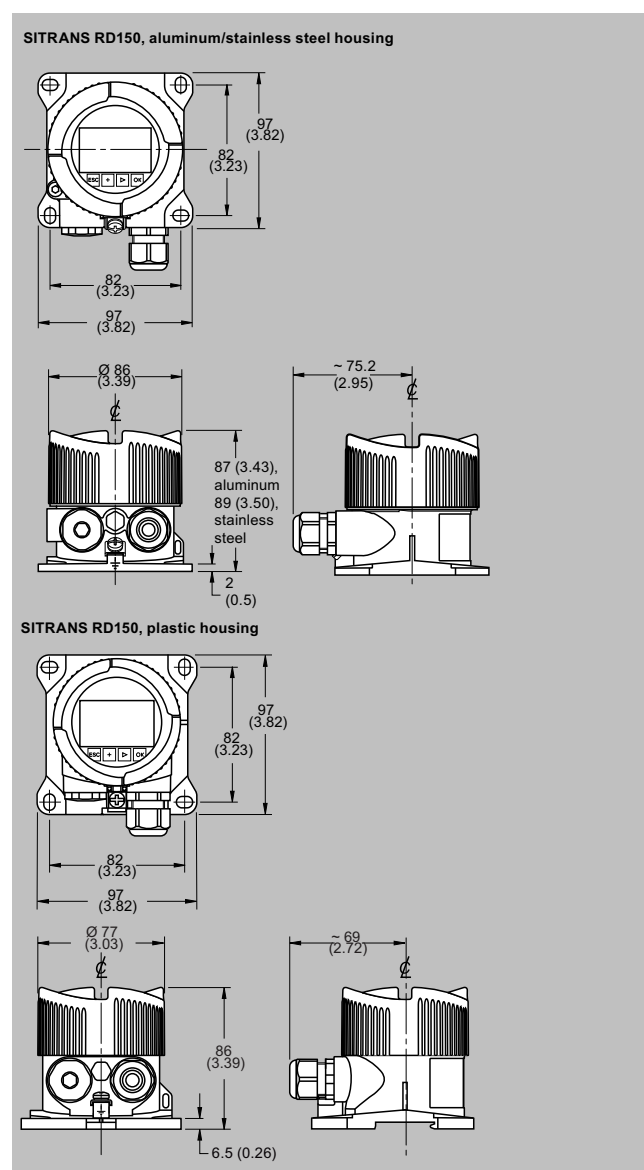
Selection and ordering data (continued)

- 2) Available only with Housing protection option 1.
- 3) Available only with Housing protection option 2.
- 4) Available only with Cable entry options 0, 2, 4, and 5.
- 5) Available only without Cable entry option 8.
- 6) Available only with Carrier rail and Tube mount Mounting options.
- 7) Available only with Wall mount, Carrier rail with aluminum or stainless steel housing, and Tube mount Mounting options.
- 8) Available only with Panel mounting option.
- 9) Available only with Housing options 1 and 2.
- 10) Available only with Cable entry options 2, 3, 4, and 7.
- 11) Available only with Cable entry options 2, 3, 4, 6, and 7.
- 12) Not available with Cable entry option 1.

Technical specifications

SITRANS RD150	
Mode of operation	
Measuring principle	Analog to digital conversion
Measuring range	3.5 ... 22.5 mA
Measuring points	HART multi-drop support
Accuracy	± 0.1 % of 20 mA
Rated operating conditions	
Without display and adjustment module	-40 ... +80 °C (-40 ... +176 °F)
With display and adjustment module	-20 ... +70 °C (-4 ... +158 °F)
Storage temperature	-40 ... +80 °C (-40 ... +176 °F)
Design	
Weight	
• Plastic housing	0.35 kg (0.772 lb)
• Aluminum housing	0.7 kg (1.543 lb)
• Stainless steel housing	2.0 kg (4.409 lb)
Material (enclosure)	
• Plastic housing	Plastic PBT (Polyester)
• Aluminum housing	Aluminum die-casting AISi10Mg, powder-coated (basis: Polyester)
• Stainless steel housing	316L precision casting, blasted
Degree of protection	
• Plastic housing	IEC 60529 IP66/IP 67, NEMA Type 4X
• Housing for panel mounting (mounted)	IEC 60529 IP40, NEMA Type 1
• Aluminum/stainless steel housing	IEC 60529 IP66/IP68 (0.2 bar), NEMA Type 6P
Power supply	
External loop power supply	35 V DC max.
Display	
Number of digits	5
Digit size	7 x 13 mm (0.28 x 0.51 inch)
Certificates and approvals	
	See the online PIA configuration tool for details.
Options	
Mounting	<ul style="list-style-type: none"> • Panel Mounting • Carrier rail mounting • Pipe mounting

Dimensional drawings

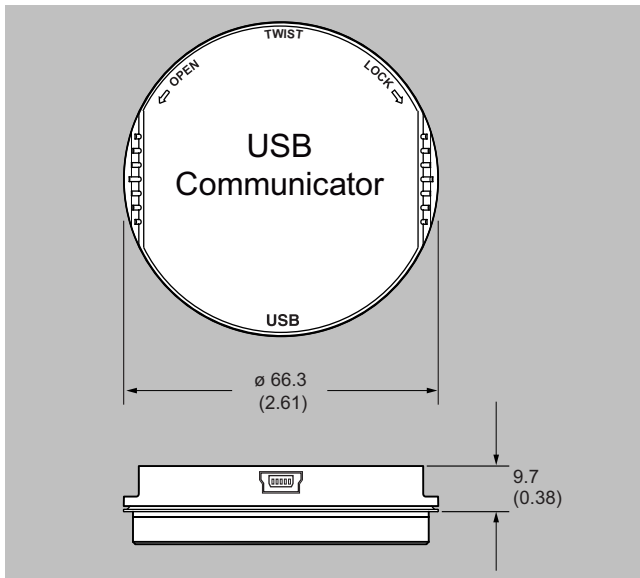


Supplementary components

Displays

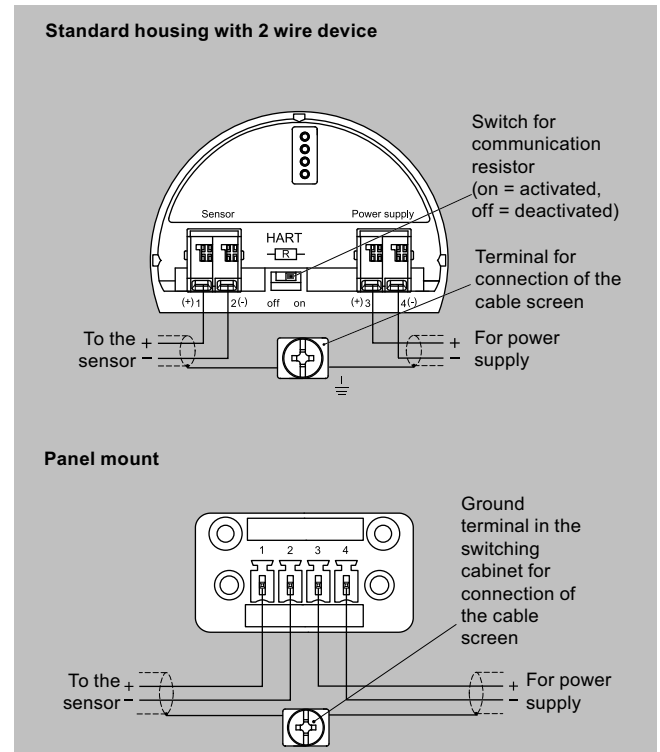
SITRANS RD150

Dimensional drawings (continued)



USB Communicator, dimensions in mm (inch)

Circuit diagrams



SITRANS RD150 connections