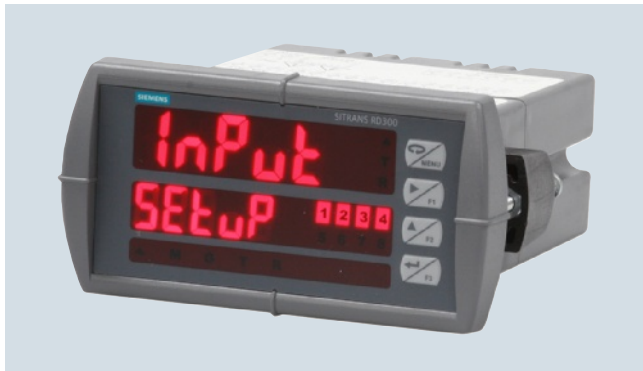


## Supplementary Components

### Displays

#### SITRANS RD300

##### Overview



The SITRANS RD300 is a panel mount remote digital display for process instrumentation and acts as a multi-purpose, easy to use, rate/totalizer ideal for flow rate, total, and control applications.

##### Benefits

- Easy setup and programming via front panel buttons or remotely using RD software
- Display readable in sunlight
- Input: accepts current and voltage
- Single or dual 24 V DC transmitter power supply
- Serial communication using built in protocol or Modbus RTU
- Supports up to 8 relays and 8 digital I/O for process control and alarming
- 32-point linearization, square root or exponential linearization
- Multi-pump alternation control
- Supports total, grand total or non-resettable grand total
- 9-digit totalizer with total overflow feature
- Large dual-line 6-digit display
- Configure, monitor, and datalog from a PC
- Dual-input option with math functions: addition, difference, average, multiplication, division, minimum, maximum, weighted average, ratio, concentration

##### Application

The RD300 is a remote display for level, flow, pressure, weighing, and other process instruments. This display also acts as a multi-purpose, easy to use rate/totalizer ideal for flow rate, total, and control applications.

Data can be remotely collected, logged and presented on your local computer using the free downloadable RD software.

The display accepts a single or dual input of current and voltage. This makes the RD300 an ideal fit for use with most field instruments.

The RD300 can be set up as a standard panel mount, or combined with optional enclosures to allow it to house up to 6 displays.

##### Key Applications

Tank farms, pump alternation control, local or remote display of level, flow, pressure and weighing instrument values, PC monitoring and data logging with RD software.

##### Technical specifications

<b>Mode of operation</b>	
Measuring principle	Analog to digital conversion
Measuring points	1 or 2 instruments
<b>Input</b>	
Measuring range	
• Current	• 4 ... 20 mA, 0 ... 20 mA
• Voltage	• 0 ... 10 V DC, 1 ... 5 V, 0 ... 5 V
<b>Output signal</b>	
Output	• 4 ... 20 mA (optional) • Modbus RTU
Relays	2 or 4 SPDT (Form C) internal and/or 4 SPST (Form A) external; rated 3 A at 30 VDC and 125/250 VAC resistive load; 1/14 HP (50 W) at 125/250 V AC for inductive loads (optional)
Communications	• RS 232 with Modbus RTU • RS 422/485 with Modbus RTU
<b>Accuracy</b>	
4 ... 20 mA optional output	± 0.1 % FS ± 0.004 mA
Process input	± 0.05 % of span ± 1 count, square root: 10 ... 100 % FS
<b>Rated operating conditions</b>	
Ambient conditions	
Storage temperature range	-40 ... +85 °C (-40 ... +185 °F)
Operating temperature range	-40 ... +65 °C (-40 ... +149 °F)
<b>Design</b>	
Weight	269 g (9.5 oz) (including options)
Material (enclosure)	• 1/8 DIN, high impact plastic, UL94V-0, color: gray  • Optional plastic, steel and stainless steel (Type 304, EN 1.4301) NEMA 4 enclosures
Degree of protection	Type 4X, NEMA 4X, IP65 (front cover); panel gasket provided
<b>Electrical connection</b>	
mA output signal	2-core copper conductor, twisted, shielded, 0.82 ... 3.30 mm <sup>2</sup> (18 ... 12 AWG), Belden 8 760 or equivalent is acceptable
Electrical connection and relay connection	Copper conductor according to local requirements, rated 3 A at 250 V AC
<b>Power supply</b>	
Input voltage option	85 ... 265 V AC, 50/60 Hz; 90 ... 265 V DC, 20 W max. or jumper selectable 12/24 V DC ± 10 %, 15 W max.
Transmitter power supply	Terminals P+ & P-: 24 V DC ± 10 %, 12/24 V DC powered models selectable for 24, 10, or 5 V DC supply (internal jumper J4), 85 ... 265 V AC models rated at 200 mA max., 12/24 V DC powered models rated at 100 mA max., at 50 mA max. for 5 or 10 V DC supply.
External loop power supply	35 V DC max.
Output loop resistance	• 24 V DC, 10 ... 700 Ω max. • 35 V DC (external), 100 ... 1 200 Ω max.

Displays and controls	
Main Display	0.6 inch (15 mm) high, red LEDs
Second display	0.46 inch (12 mm) high, red LEDs, 6-digits: each (-99 999 ... 999 999)
Memory	<ul style="list-style-type: none"> <li>• Non-volatile</li> <li>• Stores settings for minimum of 10 years if power is lost</li> </ul>
Programming	<ul style="list-style-type: none"> <li>• Primary: front panel</li> <li>• Secondary: meter copy or PC with SITRANS RD software</li> </ul>
Certificates and approvals	
CE, UL, cUL	
Options	
Enclosures	Plastic, steel and stainless steel (Type 304, EN 1.4301) NEMA 4 and 4X enclosures

Selection and Ordering data	Article No.
<b>SITRANS RD300</b>	<b>7ML5744-</b>
Dual line Remote digital display compatible with PI instruments	<b>0 A</b>
<a href="#">Click on the Article No. for the online configuration in the PIA Life Cycle Portal.</a>	
Input voltage	
85 ... 265 V AC, 50/60 Hz; 90 ... 265 V DC, 20 W max.	<b>1</b>
12 ... 36 V DC; 12 ... 24 V AC, 6 W max.	<b>2</b>
Output	
None	<b>A</b>
2 Relays	<b>B</b>
4 Relays	<b>C</b>
4 ... 20 mA output	<b>D</b>
2 Relays and 4 ... 20 mA output	<b>E</b>
4 Relays and 4 ... 20 mA output	<b>F</b>
Type	
Single input process and flow rate/totalizer Mtr	<b>A</b>
Dual input process Mtr	<b>B</b>
Display	
Standard	<b>0</b>
SunBright	<b>1</b>
Approvals	
UL & C-UL & CE	<b>0</b>

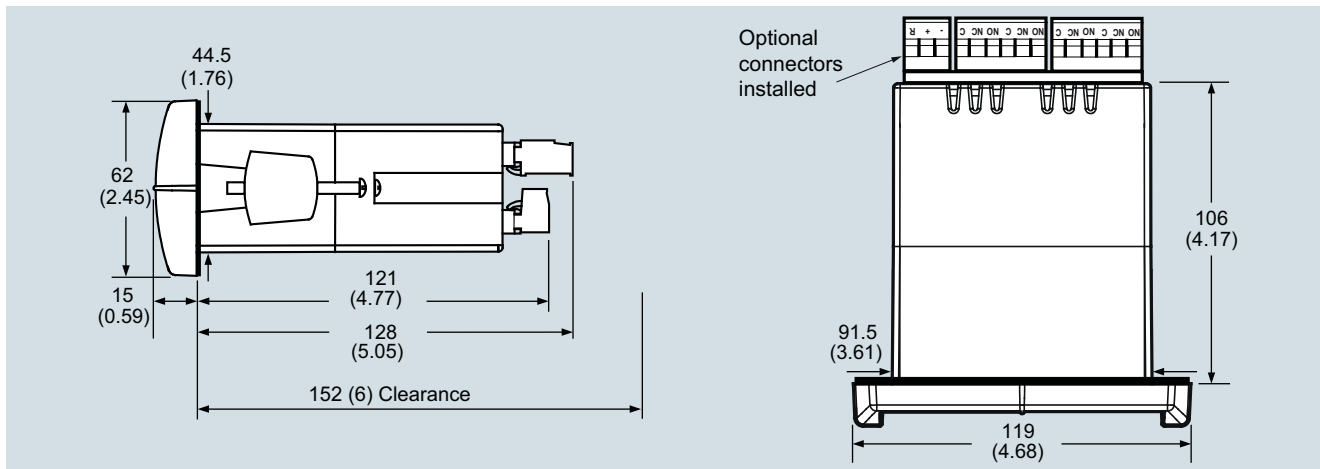
Selection and Ordering data	Article No.
<u>Operating Instructions</u>	
Single input process and flow rate/totalizer Mtr	
English	<b>A5E31917845</b>
French	<b>A5E31948924</b>
German	<b>A5E31948919</b>
Dual input process Mtr	
English	<b>A5E33481367</b>
German	<b>A5E33481387</b>
Note: The operating instructions should be ordered as a separate line on the order. This device is shipped with the Siemens Level and Weighing manual DVD containing Quick Starts and Operating Instructions.	
<u>Other Operating Instructions</u>	
SITRANS RD DIN-Rail Mounting Kit, English	<b>A5E31979181</b>
SITRANS RD DIN-Rail Mounting Kit, German	<b>A5E31979184</b>
SITRANS RD Expansion Modules, English	<b>A5E31979173</b>
SITRANS RD Expansion Modules, German	<b>A5E31979176</b>
SITRANS RD Serial Communications Accessories, English	<b>A5E31979195</b>
SITRANS RD Serial Communications Accessories, German	<b>A5E31979197</b>
<u>Accessories</u>	
DIN-Rail Mounting Kit	<b>7ML1930-6AB</b>
4 Relays Expansion Module	<b>7ML1930-6AC</b>
4 Digital I/O Module	<b>7ML1930-6AD</b>
Dual output 4 ... 20mA expansion module for dual input meter	<b>7ML1930-6AP</b>
Meter Copy Cable	<b>7ML1930-6AE</b>
RS 232 Serial Adapter	<b>7ML1930-6AF</b>
RS 422/485 Serial Adapter	<b>7ML1930-6AG</b>
RD300 USB Serial Adapter	<b>7ML1930-6AJ</b>
USB to RS 232 Converter	<b>7ML1930-6AK</b>
Shubber	<b>7ML1930-6AL</b>
<u>Plastic enclosure</u>	
For 1 meter	<b>7ML1930-6AM</b>
For 2 meters	<b>7ML1930-6AN</b>
For 4 meters	<b>7ML1930-1CK</b>
For 5 meters	<b>7ML1930-1CL</b>
For 6 meters	<b>7ML1930-1CM</b>

## Supplementary Components

### Displays

#### SITRANS RD300

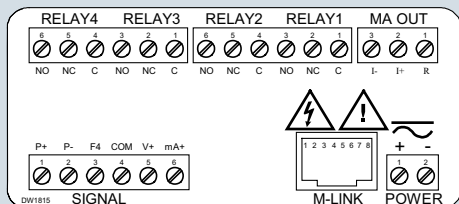
#### Dimensional drawings



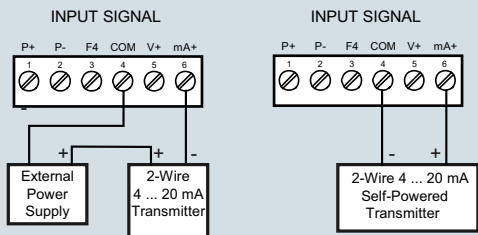
SITRANS RD300, dimensions in mm (inch)

Schematics

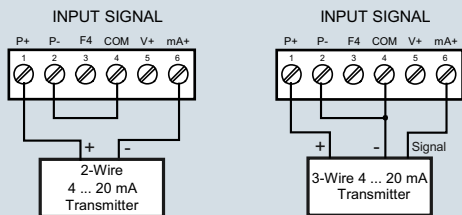
Connector labeling for fully loaded single input meter



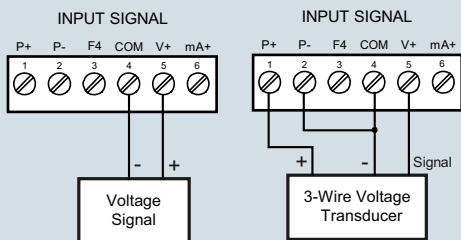
Transmitter powered by external supply or self-powered



Transmitter powered by internal supply



Voltage Input Connections



SITRANS RD300 connections