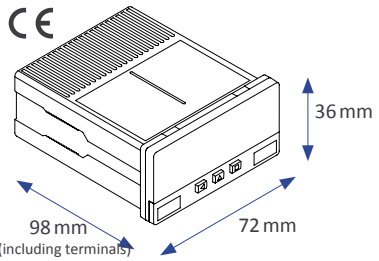
S40-RTU Display for Modbus RTU

Display for Modbus RTU protocol with 4 digits and 14 mm digit height in red or green color. Compact 72 x 48 mm size, for panel mount. Configurable 16 bit or 32 bit registers. Reading range from 9999 to -1999. Decimal point. Two configurable working modes with different alarm controls: 'Full slave' and 'Process slave'. 'Watchdog' function, 'Bus activity' function, 'Fast access' menu, 'On power up' function. Universal high and low AC and DC power options. Optional retransmission and control modules with relays, analog outputs and serial outputs.

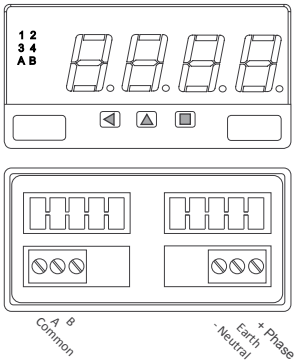
Technical specifications

Digits	4
Reading	9999 / -1999
Decimal point	X.X.X.X
Led color	red or green
Digit height	14 mm
Protocol	Modbus RTU
Bus	RS-485
Function	Modbus RTU slave
Speed	from 38.400 bps to 600 bps (19.200 bps by default)
Data format	8n1, 8e1, 8o1, 8n2
Address	1 to 247
Bus terminators	not included
Watchdog	configurable from 1 to 120 seconds
Functions supported	6 - Write single register 16 - Write multiple registers 3 - Read registers 5 - Write single coil 15 - Write multiple coils 1 - Read coils
Power 'H'	85 to 265 Vac/dc (isolated 3500 Veff)
Power 'L'	11 to 60 Vdc and 24/48 Vac (isolated 2000 Veff)
Retransmission and control options	relays, analog output, serial communications, ...
Consumption	<1.5 W (meter only) <4.0 W (meter with options)
Protection	IP54 standard (optional IP65)
Connections	plug-in screw terminal
Weight	<150 grams
Mounting	panel
Front size	72 x 36 mm
Panel cut-out	69 x 32.5 mm
Deep	98 mm (including terminals)
Operating temperature	0 to 50 ºC

Dimensions and connections



Detail of the plug-in screw terminal. The instrument is provided will all male and female terminals needed.



Order reference

Model	Power	Option 1	Option 2	Others
S40 - RTU -	H -	-	-	-

Power	
-H	*(85-265 Vac/dc)*
-L	*(11/60 Vdc, 24 Vac, 48 Vac)*

Option 1	
- R1	*(1 relay)*
- AO	*(analog output)*
- RTU	*(Modbus RTU)*
- S4	*(RS-485)*
- S2	*(RS-232)*
-	*(empty)*

Others	
- 65	*(front IP65)*
- G	*(green led)*

** Relays R1 with contacts (NC / NO / Common), max. 250 Vac 8 A*
** Special options with 4 relays.*
** Analog outputs and serial outputs, isolated.*

Functions included

'Full slave' / 'Process slave' . . 'Full slave' allows for remote control of the alarms by writing to registers or coils. 'Process slave' allows for local control of alarms, based on local alarm configuration and actual display value.

'**Watchdog**' function. . . . . generates error after predefined time without communication with the master. Alarm can be linked to the watchdog function.

'**Bus activity**' function . . . . . detects electrical activity on the bus. Useful for troubleshooting.

'**Fast access**' menu . . . . . specific menu entries can be associated to key UP ('▲'), such as display address, or alarm setpoints.

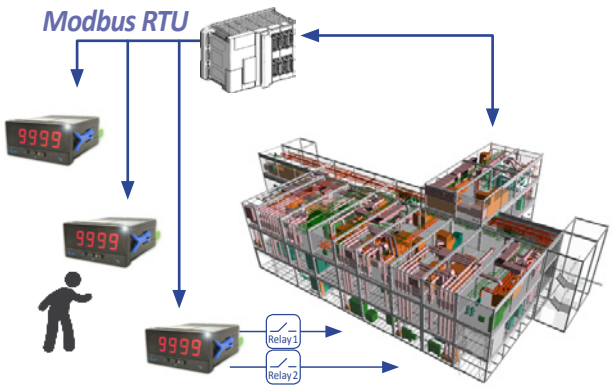
'**On power-up**' function . . . . . configurable delay at start-up, and configurable state of alarms at start-up.

Brightness . . . . . 5 levels of brightness intensity.

Password . . . . . blocks access to configuration menu.

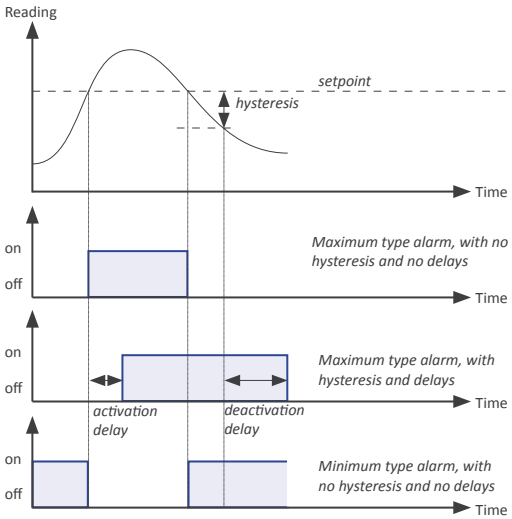
Application example

Factory signals are concentrated into a PLC who receives and manages factory processes. Critical information can be numerically communicated to local operators via Modbus RTU repeaters S40-RTU. Local displayed values are of valuable help to the operator, who can review in a single and fast visual check the main critical parameters of the system.



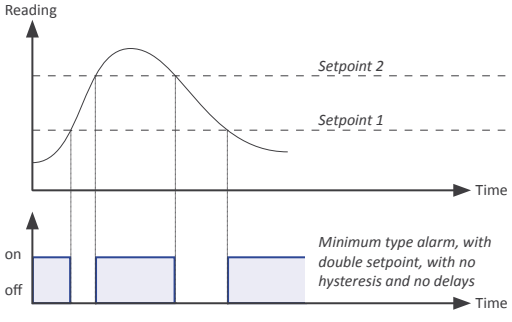
Alarms example

Process alarms with one setpoint, configurable deactivation hysteresis, independent activation and deactivation delays.



Double setpoint alarms

Process alarms with double setpoint, configurable as maximum or minimum, allow to create activation or deactivation windows..



Other options and accessories

Options for S Series of instruments and mounting accessories for 72 x 36 mm housings of S Series.

Green leds

72 x 72 mm adapter

Web documentation

S40-RTU user's manual	www.fema.es/docs/3724_S40-RTU_manual_i.pdf
S40-RTU datasheet	www.fema.es/docs/3726_S40-RTU_datasheet_i.pdf

Reading distances

Reading distances and series of product for panel meters with digit height starting at 10 mm and up to 100 mm.

Digit height (mm)	10	14	20	60	100
Reading distance	4 m	5 m	8 m	20 m	40 m
Series	L35	Series M Series S	Series K	BDF-24	BDF-44

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