

Rosemount SCU 51

Supply and Communication Unit



The Rosemount SCU 51 Supply and Communication Unit is the connection hub for the Rosemount Tank Radar Gauges. The SCU is a self-contained unit with provisions for intrinsically safe connection to the Rosemount Tank Radar Gauges.

- All basic tank data from deck available on touch screen display
- Service and diagnostics of deck units available for easy trouble shooting
- Rosemount CMS with integrated High Level and Overfill alarm systems are independently measured and displayed on the Rosemount SCA 51
- Full separation of power, hardware, functionality and communication within a system with dual functionality
- Supplies intrinsically safe power to the Tank Radar Gauges
- A dual functionality SCU cabinet offers a redundant and reliable system.
- Configured with dual functionality the Rosemount SCU 51 can support both primary and secondary level gauging for a LNG carrier

Cabinet for Deck Communication

The Rosemount SCU 51 Supply and Communications Unit is the central cabinet for connection of the deck devices in a Rosemount CMS or Rosemount CTS system. All the information from the Tank Radar Gauges (TGUs) are processed in the SCU. The touch screen display provides a possibility to monitor tank data and perform service tasks. One Rosemount SCU cabinet can handle up to 34 tank radar gauges and several cabinets can be connected with each other expanding the scope of the system. The cabinet is installed indoors in a vented and non-hazardous location.

Standard Features

- Supply intrinsically safe power to the Tank Radar Gauges and connected devices
- Store configuration data for the Tank Radar Gauges and connected devices
- Collect and store real-time data from the Tank Radar Gauges and connected devices
- Transmit data to clients upon request through serial or Ethernet link
- 6.5" touch screen providing diagnostics, service and tank data monitoring functions to the operator
- Relay outputs for system failure indication

Optional Features

- High level and Overfill alarm systems are available as integrated systems built with the Rosemount Tank Radar Gauges with two or three independent channels
- Depending on configuration the embedded computers may be configured for redundancy, where two computers act as backup servers for each other
- Backup power redundancy through a built-in battery and charger

Integrated Level Alarm System

With the optional use of the Rosemount Tank Radar Gauges with two or three independent channels it is possible to use a SCU with dual level computers and thus get a compact and efficient installation. The alarms are indicated on the Rosemount SCA 51 alarm panel that can be installed either in the cabinet next to the touch screen display or separately in a convenient location.



Redundant Level System

The Rosemount CMS and Rosemount CTS can be installed with redundant level functions. In such installation the SCU is fitted with an additional computer making sure that the system remains functional even in the event of a breakdown of one component.

Touch Screen Display Functions

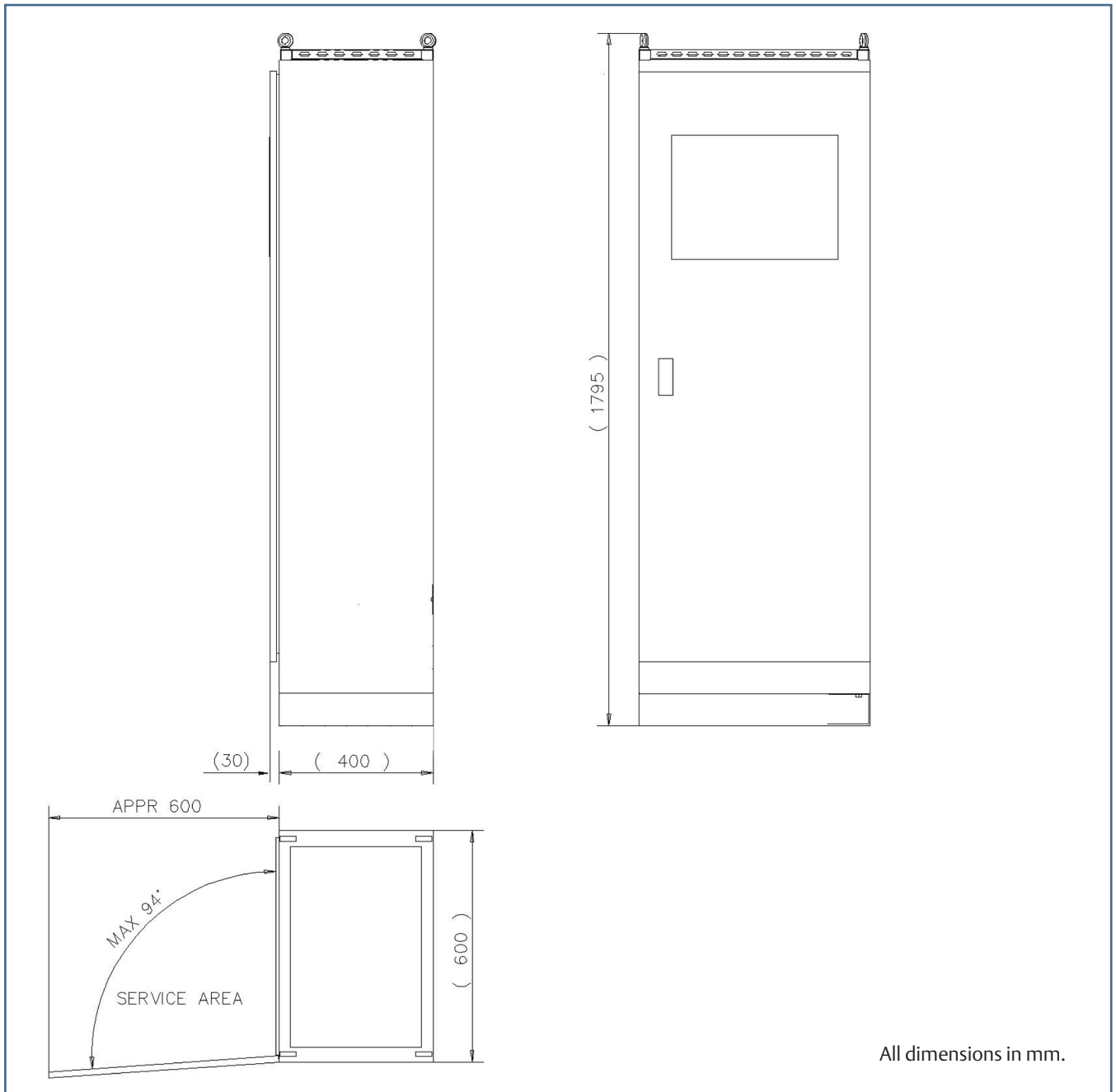
A touch screen display is provided for the level and the optional redundant level system. This means that systems with only one measuring channel in each Tank Radar Gauge have a single display installed in the SCU, while the dual channel, redundant level system, have two displays.

On each display it is possible to:

- Access all tank data such as Raw Level*, Vapor Pressure, Spot Temperatures and Average Temperatures (Liquid and Vapor). This can serve as a backup if Workstations are unavailable.
- View diagnostics information for connected devices
- Perform service actions such as replacing devices, store/re-store configuration database, tank scan, data logging etc.

*) CTS: Raw Level is uncorrected for trim, list and tank expansion.
 CMS: Raw Level ins corrected for trim and list
 CMS with MTM/Aperio: Raw Level is uncorrected for trim and list

Dimensional Drawings



Technical Specification

SCU 51	
General Specification	
Number of transmitter connections	2x17 interfaces for Tank Radar Gauges
Operator interface	6.5" touch screen display
Communication interface	Modbus over RS-485/RS-422 or Ethernet
Relay outputs	8 pcs (including System Failure Alarm)
Relay contact rating	250VAC , 5A max resistive load
Electrical Specification	
Supply system	AC or DC supply
AC Supply	115V or 230V
DC Supply	24V, Max 16A
Power consumption	Max 650VA, Continuous 450VAC
Mechanical Specification	
Weight	Max 125 kg
Environment Specification	
Ambient temperature	0 to 35 °C
Humidity	20% to 80% (non-condensing)
Ingress protection	IP22
Approvals	
Marine type approvals	ABS, BV, CCS, DNV-GL, KR, LR, NK, RINA
Explosion protection	Intrinsically safe associated apparatus: ATEX: II(1)G [Ex ia Ga] IIC IECEX: [Ex ia] IIC INMETRO: [Ex ia Ga] IIC

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