R95C 8-Port Analog In to ModBus® Hub Quick Start Guide

Features

This guide is designed to help you set up and install the R95C 8-Port Analog In to ModBus® Hub. For complete information on programming, performance, troubleshooting, dimensions, and accessories, please refer to the Instruction Manual at www.bannerengineering.com. Search for part number 233568 to view the Instruction Manual. Use of this document assumes familiarity with pertinent industry standards and practices.

Overview

When an analog input value is received by the R95C-8UI-MQ hub, the numerical representational value is represented via ModBus registers.

Analog Ranges

Voltage = 0 mV to 11,000 mV

Current = 0 µA to 24,000 µA

Mechanical Installation

Install the R95C to allow access for functional checks, maintenance, and service or replacement. Do not install the R95C in such a way to allow for intentional defeat.

Fasteners must be of sufficient strength to guard against breakage. The use of permanent fasteners or locking hardware is recommended to prevent the loosening or displacement of the device. The mounting hole (4.5 mm) in the R95C accepts M4 (#8) hardware.

CAUTION: Do not overtighten the R95C's mounting screw during installation. Overtightening can affect the performance of the R95C.

Status Indicators

The R95C 8-Port Analog In to ModBus® Hub has matching amber LED indicators on both sides for each analog in port to allow for installation needs and still provide adequate indication visibility. There is also an additional amber LED indicator on both sides of the converter, which is specific to the ModBus communication.

Power Indicator Green LED	
Indication	**Status**
Off	Power off
Solid Green	Power on

Modbus Communication Amber LED	
Indication	**Status**
Off	Modbus communications are not present
Flashing Amber (4 Hz)	Modbus communications are active
Solid Amber for 2 Seconds, Then to Off	Modbus communications are lost after connection
Solid Amber for 2 Seconds, Then to Flashing Amber (4 Hz)	Modbus communications momentarily lost, but then communication was reestablished

Analog In Amber LED	
Indication	**Status**
Off	Analog current value is less than setpoint SP1 OR analog value is greater than setpoint SP2
Solid Amber	Analog current value is between setpoint SP1 AND setpoint SP2
Default Current Values: • SP1 = 0.004 A • SP2 = 0.02 A	Default Voltage Values: • SP1 = 0 V • SP2 = 10 V

Specifications

Supply Voltage

12 V DC to 30 V DC at 400 mA maximum

Power Pass-Through Current

500 mA per port maximum

Analog Input Impedance

Current version: Approximately 250 ohms

Voltage version: Approximately 14.3K ohms

Original Instructions
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ПРОМЭЛЕКТРОНИКА/ sales@prom-elec.com

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Leakage Current Immunity

400 µA

Indicators

Green: Power

Amber: ModBus communications

Amber: Analog In status

Connections

(8) Integral 4-pin M12 female quick-disconnect connector

(1) Integral 5-pin M12 male quick-disconnect connector

Construction

Coupling Material: Nickel-plated brass

Connector Body: PVC translucent black

Vibration and Mechanical Shock

Meets IEC 60068-2-6 requirements (Vibration: 10 Hz to 55 Hz, 0.5 mm amplitude, 5 minutes sweep, 30 minutes dwell)

Meets IEC 60068-2-27 requirements (Shock: 15G 11 ms duration, half sine wave)

Certifications

Banner Engineering BV
Park Lane, Culliganlaan 2F bus 3
1831 Diegem, BELGIUM

Turck Banner LTD Blenheim House
Blenheim Court
Wickford, Essex SS11 8YT
GREAT BRITAIN

Product Identification

SNAP SIGNAL®

Environmental Rating

IP65, IP67, IP68

UL Type 1

Operating Conditions

Temperature: –40 °C to +70 °C (–40 °F to +158 °F)

90% at +70 °C maximum relative humidity (non-condensing)

Storage Temperature: –40 °C to +80 °C (–40 °F to +176 °F)

Required Overcurrent Protection

WARNING: Electrical connections must be made by qualified personnel in accordance with local and national electrical codes and regulations.

Overcurrent protection is required to be provided by end product application per the supplied table.

Overcurrent protection may be provided with external fusing or via Current Limiting, Class 2 Power Supply.

Supply wiring leads < 24 AWG shall not be spliced.

For additional product support, go to www.bannerengineering.com.

Supply Wiring (AWG)	Required Overcurrent Protection (A)	Supply Wiring (AWG)	Required Overcurrent Protection (A)
20	5.0	26	1.0
22	3.0	28	0.8
24	1.0	30	0.5

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