RC SYSTEMS

RC Systems has engineered and manufactured industrial electronic products for the instrumentation industry since 1979. As critical alarm monitoring experts, we specialize in interfacing various sensors and analyzer devices to our alarm and display products. Our products are known for their reliability, performance, and ease of use for applications where maintenance and safety are crucial. Some of these applications include fixed and temporary ambient gas detection as well as numerous other multi signal monitoring applications. In addition, we provide various solutions for hard wire or wireless systems. Our wireless monitoring ability/ strategy continues to provide recognized solutions for countless customers worldwide.

ST-60A Analog to Modbus® RS-485 Serial Interface Converter

The RC Systems ST-60A is an analog to RS-485 Modbus® protocol converter. It accepts voltage and current inputs and then scales the signal into the appropriate range. Six engineering units and sixteen channel identification characters may also be transmitted. In addition, HIGH - WARN and FAULT discrete alarm values are available. ST-60A's are easily configured using a PC or a special hand held battery powered programmer. A total of 128 ST-60A's may be connected to the same twisted pair cable.

Shown Above: ST-60A

FEATURES

- Accepts analog voltage or current inputs and transmits RS-485 data to a Modbus® Master device.

- The protocol is Modbus® RTU; supporting function codes 2 through 6.

- As many as 128 ST-60A converters may be multi-dropped onto the same twisted pair data highway.

- Transmitted data includes the analog value scaled for range and engineering units, discrete HIGH -WARN and FAULT alarm values, and a 16 character identification descriptor.

- Available in general purpose high density DIN rail mount housing or an explosion-proof instrument enclosure.

- Alarm controllers and displays are also available.

- Packaged in high density DIN rail mount enclosures.

- Non-volatile RAM retains all configuration data indefinitely.

- More information available with Modbus® over traditional 4-20mA loops.

- No determination must be made concerning alarms, range or location when accepting data.

- Wiring may be daisy chained unlike traditional systems requiring 2 wires per signal.

- Requires 12 or 24 VDC power.

SPECIFICATIONS

ANALOG INPUTS
4-20mA into 100 ohms input impedance. Any input voltage between 0-100mV and 0-5 volts may be selected by adjusting reference voltage with 25 turn potentiometer

ANALOG TO DIGITAL CONVERTER
10 bit successive approximation

SERIAL PORT
RS-485 half or full duplex. Protocol is Modbus® RTU

ACCURACY
±.1% of full scale ± 1 count

AMBIENT TEMPERATURE RANGE
-20-60 degrees C

TEMPERATURE DRIFT
Less than .1% per degree C over ambient temperature range

POWER SUPPLY
19 - 30VDC (24VDC nominal) at less than 50mA
10 - 18VDC (12VDC nominal) available by special order

HOUSING
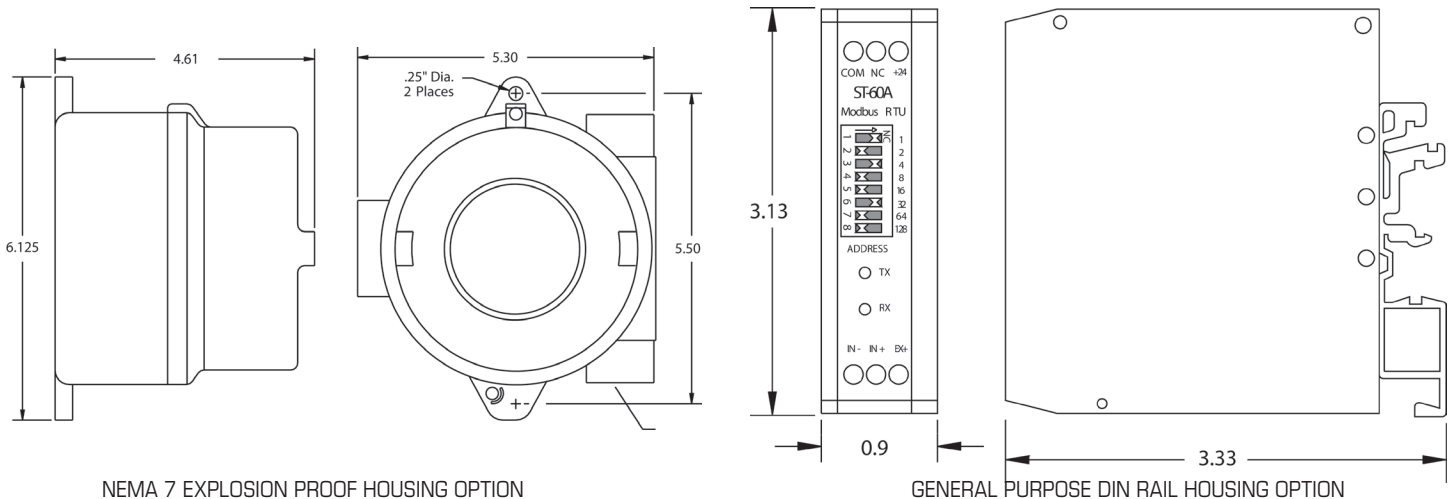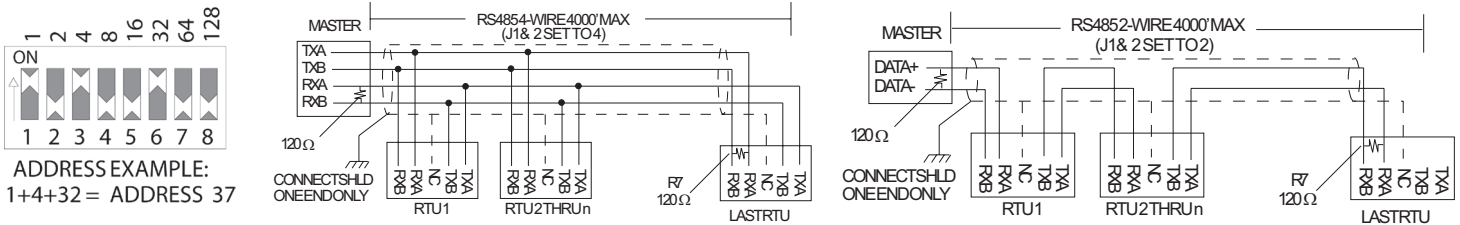DIN rail fire retardant plastic or NEMA 7 explosion-proof

ST-60A INPUTS BY MODEL

60-61   ST-60A DN DIN rail mounted converter

`   Instrument enclosure suitable for Class 1, Groups B,C,D; Class 2, Groups E,F,G. Also meets NEMA 4 with included 'O' ring

ST-60A OPTIONS

60-68   Universal hand held programmer. Allows ST- 60A multidrop networks be configured using a battery powered portable device

60-69   PC programming kit. Includes software, cable and RS-232 to RS-485 Converter to allow ST-60A multidrop networks be configured from any PC

TYPICAL WIRING INSTALLATIONS

NEMA 7 EXPLOSION PROOF HOUSING OPTION

GENERAL PURPOSE DIN RAIL HOUSING OPTION

ALL DIMENSIONS IN INCHES