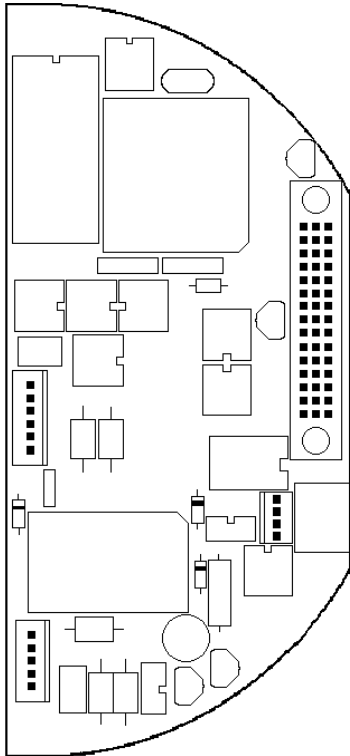




- **2 analogue inputs, 4-20mA, 0-5V or 1-5V**
- **12 bit conversion gives 0.1% resolution**
- **Fits inside IQ actuator for convenience**
- **Configured non-intrusively**
- **Inputs isolated from the 2 wire loop**
- **Fully Pakscan System compatible**
- **Ideal for adding analogue input capability at low cost**

The IQ Analogue board is specifically designed for use with the Rotork Pakscan 2 wire control system and the IQ actuator. It fits inside the IQ actuator and the analogue signals from two field transmitters may be connected to it. The measured signals, usually a process variable, are transmitted to the control room using the Pakscan 2 wire network.

The Analogue Inputs to the card are converted to digital values suitable for transmitting over the Pakscan network. A resolution of 12 bits is provided in order to maintain a 0.1% accuracy in the conversion.

The interval between reports of the values may be altered by the settings for the Deviation and Update Time on the card. Each channel is set independently. The minimum reporting time cannot be less than the time to scan the entire Pakscan loop, details of the scanning times can be found in the system publication S000E.

The IQ Analogue board requires that a standard IQ Pakscan field unit is also fitted to the IQ actuator, completing the maximum compliment of

2 option boards in the actuator. Each board is represented by an address on the Pakscan loop.

The analogue transmitters should be remotely powered whenever possible, leaving the actuator 24V dc supply free to power the 2 wire loop. However, if the supply from the actuator is used to power 4-20mA transmitters then the cable length must be below 15 metres to minimise common mode interference.

Configuration

The IQ Analogue board needs to be set for general Pakscan parameters such as Address and Loop Speed. In addition the input signal 0% value and 100% value should be calibrated for both input channels. The inputs need not both be the same as they are independently set. The voltage or current input option is programmed into the field unit and finally the deviation and update times are set for each channel.

Configuration is carried out using a Paktester or IQ Communicator. All of the parameters are held in non-volatile memory on the board and they are retained even when there is no power on the actuator.

Pakscan

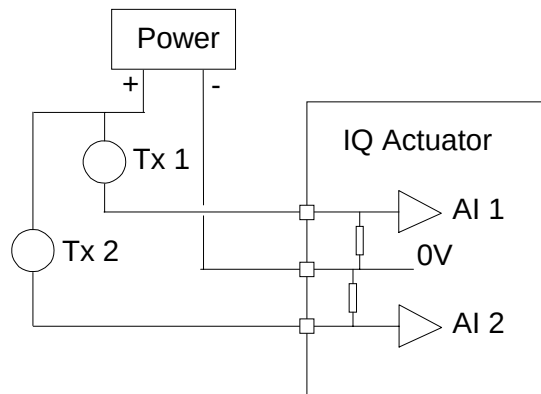
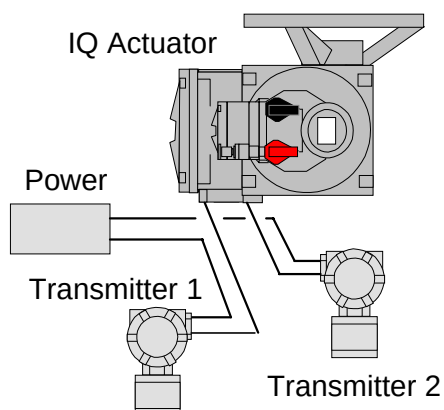
IQ Analogue Input Field Unit

rotork

Publication S164E

Date of issue: 4/99

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Configurable Parameters

Input Signal: current or voltage (each input independent)

Zero: set the input equivalent to 0% (each input independent)

Span: set the input equivalent to 100% (each input independent)

Deviation Threshold: the amount by which the value may change before it is reported over the network (each input independent).

Update Time: the maximum period between the reporting of the value irrespective of how much it has changed (each input independent).

Loop Speed: in the range 110 to 2400 baud

Address: for the card on the 2 wire loop

Specification

Input Signal: 0-5 volts, 1-5 volts or 4-20 mA dc

Input Impedance: 250 kohm for voltage inputs, 250 ohm for current inputs.

Conversion Resolution: 12 bits

Conversion Accuracy: 0.1% +/- 1 digit

Isolation: Both inputs share a common negative line.

Temperature range: -40°C to 70°C

Loading: the Analogue card represents one Pakscan node

Reported Data: Scaled and raw values reported at the master station for the selected address.

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As we are continually developing our products, their design is subject to change without notice.

The name Rotork is a registered trade mark

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