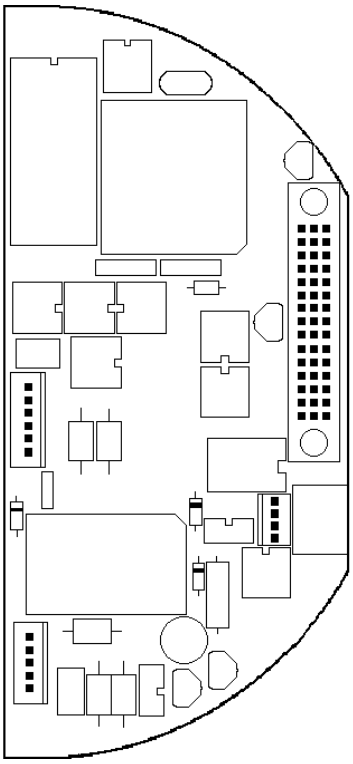
Pakscan
IQ Analogue Input Field Unit

Publication S164E
Date of issue: 4/99



- ***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.

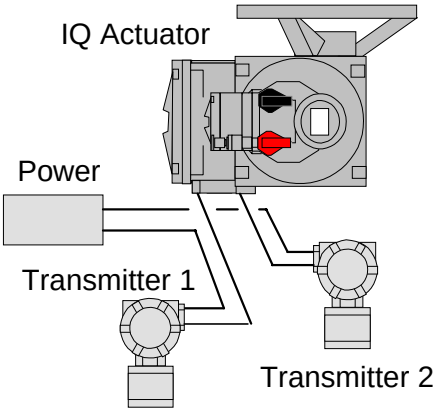
The analogue transmitters should be remotely powered whenever possible, leaving the actuator 24V dc supply free to power the 2 wire loop. However, if the supply from the actuator is used to power 4-20mA transmitters then the cable length must be below 15 metres to minimise common mode interference.

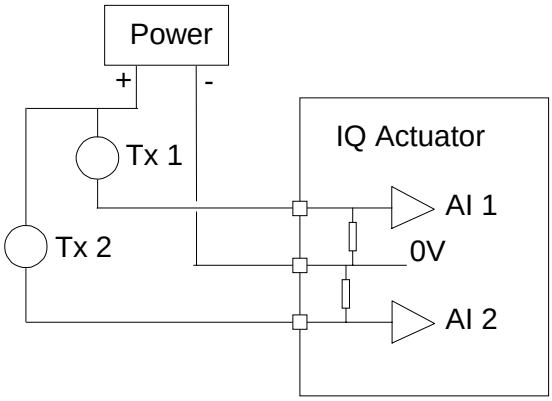
Configuration
The IQ Analogue board needs to be set for general Pakscan parameters such as Address and Loop Speed. In addition the input signal 0% value and 100% value should be calibrated for both input channels. The inputs need not both be the same as they are independently set. The voltage or current 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

Publication S164E
Date of issue: 4/99





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: -40^0C to 70^0C

Loading: the Analogue card represents one Pakscan node

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

UK head office
Rotork Controls Ltd
telephone Bath (01225) 733200
telefax (01225) 333467
e-mail mail@rotork.co.uk

USA head office
Rotork Controls Inc
telephone Rochester (716) 328 1550
telefax (716) 328 5848

website: www.rotork.com

	telephone	*telefax*
Australia Ballarat	(053) 381 566	(053) 381 570
Australia Brisbane	(07) 294 6139	(07) 294 6082
Australia Perth	(09) 314 1827	(09) 314 1837
Australia Sydney	(02) 567 2735	(02) 567 2739
Canada Calgary	(403) 569 9455	(403) 569 9414
Canada Edmonton	(403) 438 4042	(403) 449 6578
Canada Montreal	(514) 355 3003	(514) 355 0024
Canada Sarnia	(519) 337 9190	(519) 337 0017
Canada Toronto	(905) 602 5665	(905) 602 5669
China Beijing	(01) 513 7550	(01) 524 0003
China Shanghai	(021) 219 8185	(021) 219 7311
France Paris	(01) 4835 4499	(01) 4835 4254
Germany Hilden	(02103) 54098	(02103) 54090
Hong Kong & S.China	2 520 2390	2 528 9746
India Madras	(044) 625 7107	(044) 625 7108
Italy Milan	(02) 824 1001	(02) 892 0030

	telephone	*telefax*
Korea (South) Seoul	(02) 565 4803	(02) 565 4802
Malaysia Kuala Lumpar	(03) 244 6418	(03) 244 6416
Netherlands Rotterdam	(010) 414 6911	(010) 414 4750
Russia Moscow	(095) 275 0003	(095) 274 0044
Saudi Arabia Al Khobar	(03) 857 9956	(03) 857 7170
Singapore	457 1233	457 6011
Spain Vizcaya	(94) 676 4244	(94) 676 4864
USA Chicago	(815) 436 1710	(815) 436 1789
USA Houston	(713) 782 5888	(713) 782 8524
USA New York City	(201) 646 9596	(201) 646 9288
USA Philadelphia	(609) 233 1926	(609) 233 9012
USA North East	(716) 377 9804	(716) 328 5848
Venezuela Barcelona	(08) 176 1460	(08) 176 1524
Venezuela Caracas	(02) 263 6533	(014) 250 822
Venezuela Maracaibo	(061) 77233	(014) 250 820