

rotork[®]

Controls

Pakscan P3 *Wireless*

IQ and IQT *Pro* Actuator Configuration Settings



Established Leaders in Actuation Technology

Bus System Option Pakscan Wireless

Setting instructions for actuators including an optional Pakscan Wireless actuator module – check wiring diagram for inclusion. For commissioning instructions see publication PUB059-004.

Actuator Control Configuration:

The Pakscan Wireless Actuator Module may be fitted with or without a standard Pakscan Wired Field Control Unit (FCU). When fitted with a Pakscan wired FCU, the Wireless module will be for monitoring purposes only; control will be via the Pakscan wired FCU.

When fitted with only the Wireless module, it is possible to have control and monitoring via wireless **or** control via the digital inputs and monitoring **only** via wireless.



For either Pakscan wired or wireless control, the Remote Control Source [Od] must be set to [oP].

If the actuator is to be hard wired controlled, but monitored by Pakscan Wireless, then [Od] must be set to [rE].

For full details of menu [Od] see publication PUB002-003 (IQ) and PUB002-004 (IQT).

Wireless Configuration:

The Wireless configuration settings are made by navigating to the network setting section.

If wired FCU and wireless modules are fitted:

Begin by going to the standard Pakscan configuration settings as referred to in the standard installation manual, the first menu item displayed will be [PA]. Set appropriate values for [PA] (FCU Address), [Pb] (network Baud rate) and [PF] (Auxiliary Input Mask). These three settings are **applicable to the wired FCU card only**.

PRESS THE → KEY to display: [CA] Wireless Address (see below)

If a wireless module is fitted ONLY:

At the location of the standard Pakscan configuration menus the [PF] (Auxiliary Input Mask) will be displayed, in this case the setting will apply to the wireless card.



For full details of menu [PF] see publication PUB002-003 (IQ) and PUB002-004 (IQT).

PRESS THE → KEY to display: [CA] Wireless Address



Use the + or – keys to display the required Wireless Actuator module address. The address range is 001 to 300. The default value is 300. The address chosen must be within the range set by the Master Station, i.e. wireless address must be greater than or equal to the Master Station setting for 'lowest address for wireless'. It must also be less than the sum of the Master Station settings for 'lowest address for wireless' and 'number of wireless actuators'.

If a wired FCU card is fitted the address of the wireless actuator module must be equal to the wired FCU card plus the Master station setting for 'lowest address for wireless'.

No two devices (Wired OR Wireless) on one Master Station can have the same address.

PRESS THE ← KEY

The displayed option will flash (stored) indicating that it has been set.



Bus System Option Pakscan Wireless

PRESS THE → KEY to display: [CP] Pan ID



The PAN ID is the Personal Area Network Identification number of the network that the actuator module is to attach to. For a device to connect to a Master station it must have the same PAN ID as the Master station. The default value is DA 15, this should not be used in general. Use the + or – keys to display the required PAN ID. The range of values is Hex 00 00 to Hex FF FF. Ensure that all devices intended to connect to the master station contain the same PAN ID.

PRESS THE ← KEY

The displayed option will flash (stored) indicating that it has been set.

PRESS THE → KEY to display: [CC] Channel



The range of frequencies over which the Pakscan wireless network communicates are split into channels. The channel chosen for a particular site may be determined by any existing sources of radio present at the site that are within the band. If, for example, the existing radio sources are low in the frequency range, the channel chosen will be in the high range to avoid possible interference. Some countries do not accept all frequencies within the 2.4 GHz band, therefore the default channel value is Hex 16 Dec 022, which transmits at globally accepted frequencies. Using the + or – keys display the required Channel. This most suitable channel for a site will have been found in the wireless Survey. The range of values is Hex 0b : Dec 011 to Hex 19 : Dec 025. Ensure that all devices intended to connect to the master station contain the same Channel number.

PRESS THE ← KEY

The displayed option will flash (stored) indicating that it has been set.

PRESS THE → KEY to display: [CE] AES Key1



Pakscan Wireless employs the Advanced Encryption Standard (AES) as a method of protecting the command messages to the actuators. The AES key must be the same between all devices on the network and the Master Station. To protect commands, the AES key should be kept secret.

The AES key is spread over 8 menu items each displaying a 2 byte part of the key. Using the + or – keys display the required AES Key. The range of values for each section is Hex 00 00 to Hex FF FF.

PRESS THE ← KEY

The displayed option will flash (stored) indicating that it has been set.

PRESS THE → KEY to display: [CE] AES Key2



This will allow you to set AES Key 2. Follow the same procedure to set AES Key 3 to AES Key 8.

Example:

AES key: 0F 15 71 C9 47 D9 E8 59 0C B7 AD D6 AF 7F 67 98

This would be entered into the 8 menu items as follows.

AES Key 1		AES Key 2		AES Key 3		AES Key 4		AES Key 5		AES Key 6		AES Key 7		AES Key 8	
0F	15	71	C9	47	D9	E8	59	0C	B7	AD	D6	AF	7F	67	98

Dimensions, Weights and Mounting

For Wireless module dimensions refer to publication PUB059-001.

Wireless module weight is approximately 1,900g.

For actuator weights, refer to publication PUB002-003 (IQ) and PUB002-004 (IQT).

For Wireless module actuator mounting instructions refer to publication PUB059-004.



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