

# BASE MODULE

## Wireless I/O Controller



Jabeco's complete management system to optimise the use of water resources



- **Configuration:**
  - Each input channel is mapped to an address and port in the wireless network.
  - On-site configuration via serial interface.
  - Remote configuration via wireless interface.
- **Functionality:**
  - Hard reset facility.
  - Signal surge protection on input channels.
  - Signal strength for every connection can be monitored through the software interface.
- **LED Indicators:**
  - Power On.
  - Signal Strength.
  - Per channel Input Active: Green.
  - Communication Input Fault: Red.
  - Input active flashing Red: allocated FM battery low.
- **Options:**
  - Expandable in groups of 8 input channels.
  - Maximum 32 Input channels.
  - Base Module can communicate with Jabeco network PC.

### PRODUCT INFORMATION

The Base Module is used to provide wireless control from an existing wired-in irrigation controller. It replaces communication cables of existing infrastructure by converting existing units into wireless controllers. The Base Module interfaces with the inputs and outputs from the controller, and provides wireless communication to JIO's and FM's, which interface with field devices.

### SPECIFICATIONS

#### POWER

- Requires a connection to 220VAC mains.
- Max 10W power consumption.

#### COMMUNICATION

- **Frequency:** 433MHz or 868MHz, on factory order.
- **RF Power:** 10mW max.
- **RF Connector:** F-Type.
- **Antenna:**
  - Dipole, standard ex-factory.
  - Optional: Single element Yagi.
- **Reach:** Dipole: + 3Km with good LOS.  
Yagi: up to 10Km with good LOS.

#### SERIAL COMMS INTERFACE

- RS-232 (DB9 Connector).
- **Baud rate:** 9600 bps.

#### INPUTS

- 0-30VDC.
- 0-24VAC.
- Internal 5VDC available for dry contact inputs.
- Common ground (internal 0V).

#### PHYSICAL

- **Weight:** approx. 2kg.
- **Dimensions:** 250mm x 200mm x 180mm.

#### ENVIRONMENTAL

- **Operating ambient:** -20°C to 50°C.
- IP 56 housing.
- Designed for typical pump house conditions.

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### ORDER INFORMATION

Part No	Description	Packing list
JB-BA-00-40	Stand Alone Base Module – 433MHz	Base module unit only. Antenna, Field module, JIO and Water Level Probe not included.
JB-BA-00-80	Stand Alone Base Module – 868MHz	

### OPERATION

- **Sending wireless signals:**

The Base Module receives input signals from the outputs of the existing controller, and relays it as a radio signal. Every input into the Base Module is allocated to a specific address and port within the wireless network, so that it can actuate a specific device in the infrastructure.

- **Verifying communications:**

Every signal sent to a specific FM is acknowledged back to the Base Module. Should acknowledgement not occur, the signal will be resent two more times. In the event that there is no acknowledgement from the FM after three communication attempts, the respective channel on the Base Module will light up with a red alarm light to indicate a fault with the unit output in the field.

- **Vital signs check:**

If the Base Module sends a signal and a flickering red light appears on the module's display for that station, it indicates that the corresponding FM's battery is low.

### APPLICATION NOTES

