

## Modbus Junction Box MJB-2<sup>™</sup>

For Modbus RS-485 (ASCII or RTU)

### DATA SHEET

#### FEATURE SUMMARY

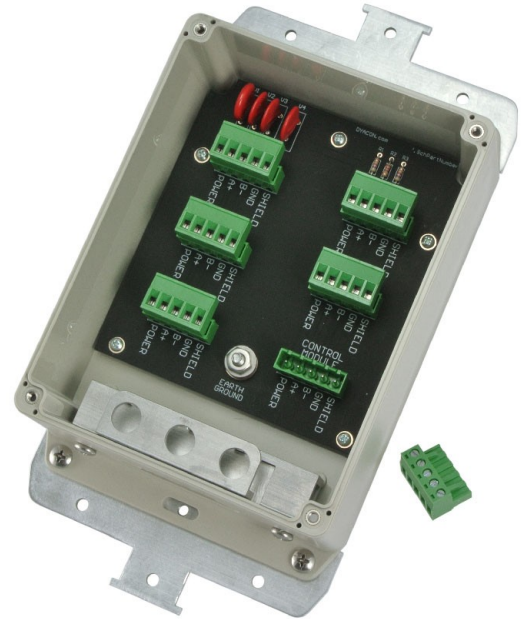
- Pull and termination resistors
- Transient voltage protection
- Pluggable terminal blocks
- Unique Cable Lock
- Made in USA.

#### DESCRIPTION

**Dyacon Modbus Junction Box MJB-2<sup>™</sup>** provides a convenient method to expand sensor capacity for Dyacon weather station controllers or to simplify installations.

**MJB-2<sup>™</sup>** can also be used with other RS-485 networks.

**MJB-2<sup>™</sup>** is a passive junction box that provides parallel connections for five slave devices and one master. Data and power are connected in parallel. Biasing, termination, and transient protection are included.



#### KEY FEATURES

**Construction:** Polycarbonate enclosure and aluminum mounting brackets.

**Connection:** 5.08 mm pitch pluggable terminal blocks with screw clamp.

Pass-through supply voltage for 12 V and 24 V.

Pass-through data.

**Mounting:** Pole or flat surface.

**Cable Pass-through:** Dyacon EZ Cable Lock allows for easy connection of terminated cables.

#### APPLICATION

**Modbus Junction Box MJB-2<sup>™</sup>** is typically used two in different situations with Dyacon weather stations.

1) Indoor or remote weather station controller.

In this configuration, the junction box is mounted on the same structure as the sensors. All of the sensors connect to the junction box. A single cable is then routed to the Dyacon CM-1 weather station controller which may be located in a protected environment.

2) Sensor expansion.

Dyacon digital sensors are Modbus RTU slave devices. The Dyacon CM-1 only has two Modbus ports, but can address and read more. MJB-1 can be used to connect up to five Dyacon digital sensors.

## ELECTRICAL

Power Input	5 VDC to 24 VDC
Current	Passive load and varistor leakage. 1.7 $\mu$ A at 12 VDC, 0.75 mA at 24 VDC
Circuit Protection	Varistor transient suppression for power and data.
Termination	Bias and load resistors optimized for 5 V. 4.7 k $\Omega$ – 120 $\Omega$ – 4.7 k $\Omega$



## ENVIRONMENTAL

Operating Temperature	-40°C to 80°C
Storage Temperature	-40°C to 80°C
Humidity	0% to 99%, non-condensing

## MECHANICAL

Material	Polycarbonate enclosure. Aluminum mounting brackets.
Overall (WxDxH)	25.7 cm x 12.8 cm x 7.8 cm (10.1" x 5.1" x 3.1")
Total Weight	.7 kg (1.5 lb)
Cable Clamp	Dyacon EZ Cable Lock. Anodized aluminum and EPDM foam.

## DATA

RS-485	Half-duplex, parallel-connection pass-through. No active circuitry.
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## COMPATIBILITY

Dyacon Controllers	CM-1
Dyacon Sensors	WSD-1, TPH-1, GT-1, PM-1

