# Sure Cross Product Models Keys



# Sure Cross® Product Model Keys

The following model numbers are for the standard Sure Cross<sup>®</sup> product models. Custom products are available and are designated with a 6-digit number following the standard model number, such as **DXM700-B1R1-123456**. For more information about ordering a product customized for your specific needs, contact Banner Engineering Corp.

# DXM Models

### Cellular Communication

DXM Controllers accept Banner LTE cellular modems only.

Order cellular modems separately as accessories under the following part numbers:

- SXI-LTE-001—Verizon LTE
- SXI-CATM1VZW-001—Verizon LTE Cat-M1
- SXI-CATM1ATT-001—AT&T LTE Cat-M1

# DXM100 Models



- B1 = Modbus controller for data aggregation of sensors and wireless networks Power: 12-30 V DC / Solar / Battery Comms: RS-485, CAN, RS-232 w/flow or secondary RS-485 Inputs: Four universal Outputs: Four NMOS, two analog (0–10 V or 4–20 mA) Power Out: Two selected 5 V or 16 V switched power, one 5 V courtesy power
- B2 = Smart valve control, SDI-12 data collection Power: 12-30 V DC / Solar / Battery Comms: RS-485, one SDI-12 sensor interface Inputs: Four universal Outputs: Four NMOS, two 0-10 V analog, two DC Latching Power Out: Two adjustable 5 V to 24 V switched power, one SDI switched power, and one 5 V courtesy power
- S1 = Modbus slave I/O device for MultiHop wireless networks or wired networks Power: 12-30 V DC / Solar / Battery Comms: RS-485 Inputs: Four universal Outputs: Four NMOS, two analog (0–10 V or 4–20 mA) Power Out: Two selectable 5 V or 16 V switched power, one 5 V courtesy power
- S2 = Modbus slave device for valve control, SDI-12 data collection for MultiHop wireless networks or wired networks Power: 12–30 V DC / Solar / Battery Comms: RS-485, one SDI-12 sensor interface Inputs: Four universal Outputs: Four NMOS, two 0–10 V analog, two DC Latching Power Out: Two adjustable 5 V to 24 V switched power, one SDI switched power, and one 5 V courtesy power

Radio Configuration

#### Blank = None

R1 = 900 MHz, 1 W PE5 Performance Radio (North America)

- R2 = 900 MHz, 1 W HE5 MultiHop Data Radio (North America)
- R3 = 2.4 GHz, 65 mW PE5 Performance Radio (Worldwide)

R4 = 2.4 GHz, 65 mW HE5 MultiHop Data Radio (Worldwide)

- R5 = 900 MHz, 65 mW HE5L MultiHop Data Radio (Used for M-GAGE networks)
- R8 = 900 MHz, Performance Radios approved for Australia/New Zealand

R9 = 900 MHz, MultiHop Radio approved for Australia/New Zealand

For S1 and S2 models, only order the R2, R4, R5, and R9 radio configurations.



Custom products are available and are designated with a 6-digit number following the standard model number, such as DXM100-B1R1-123456. For more information about ordering a product customized for your specific needs, contact Banner Engineering Corp.



#### DXM150 Models



- B1 = Modbus controller designed for applications with high I/O count, isolated inputs or integrated relays Power: 12-30 V DC / Solar / Battery Comms: RS-485 and RS-232 / CAN or secondary RS-485 Inputs: Two isolated discrete, eight universal Outputs: Two relay, four NMOS, two Analog Power Out: Two jumper selectable between 2.7 V or battery, 4.2 V or incoming power
- B2 = Modbus controller for high I/O count applications Power: 12-30 V DC / Solar / Battery Comms: RS-485 and RS-232 w/flow control or secondary RS-485 Inputs: Two isolated discrete, eight universal Outputs: Eight PNP/NPN selectable, two analog Power Out: Two courtesy power out; two jumper selectable between 2.7 V or battery, 4.2 V or incoming power
- S1 = Modbus slave with high I/O count for MultiHop wireless networks or wired networks Power: 12-30 V DC / Solar / Battery Comms: RS-485 Inputs: Two isolated discrete, eight universal Outputs: Two relay, four NMOS, two analog Power Out: Two jumper selectable between 2.7 V or battery, 4.2 V or incoming power
- S2 = Modbus slave with high I/O count for MultiHop wireless networks or wired networks Power: 12-30 V DC / Solar / Battery Comms: RS-485 Inputs: Two isolated discrete, eight universal Outputs: Eight PNP/NPN selectable, two analog Power Out: Two courtesy power out; two jumper selectable between 2.7 V or battery, 4.2 V or incoming power

# **R1**

Radio Configuration

- Blank = None
- R1 = 900 MHz, 1 W PE5 Performance Radio (North America)
- R2 = 900 MHz, 1W HE5 MultiHop Data Radio (North America)
- R3 = 2.4 GHz, 65 mW PE5 Performance Radio (Worldwide)
- R4 = 2.4 GHz, 65 mW HE5 MultiHop Data Radio (Worldwide)
- R5 = 900 MHz, 65 mW HE5L MultiHop Data Radio (Used for M-GAGE networks)
- R8 = 900 MHz, Performance Radios approved for Australia/New Zealand R9 = 900 MHz, MultiHop Radio approved for Australia/New Zealand
  - For S1 and S2 models, only order the R2, R4, R5, and R9 radio configurations.



Custom products are available and are designated with a 6-digit number following the standard model number, such as DXM150-B1R1-123456. For more information about ordering a product customized for your specific needs, contact Banner Engineering Corp.

# DXM700 Models



following the standard model number, such as DXM700-B1R1-123456. For more information about ordering a product customized for your specific needs, contact Banner Engineering Corp.



### DXM1000 Models



#### DXM1500 Models



# Wireless Q45 Sensor Nodes

Wireless Q45 Photoelectric Sensor Nodes



specific needs, contact Banner Engineering Corp.

Wireless Q45Vxx Vibration Monitoring Sensor Nodes



Wireless Q45PS Pressure Monitoring All-in-One Sensor Nodes



Custom products are available and are designated with a 6-digit number following the standard model number. For more information about ordering a product customized for your specific needs, contact Banner Engineering Corp.

Engineering Corp.

Wireless Q45U Universal 1-Wire and Ultrasonic Sensor Nodes



# Performance and MultiHop Models

# Performance Pressure Sensing Models



Performance Condition (Vibration and Current) Monitoring Models



#### Performance Models



#### P – Serial RS485/RS232

P1 - FlexPower, 2 Discrete IN, 2 Discrete OUT, 2 Analog IN, Boost Voltage

- P2 4 Discrete IN, 4 Discrete OUT, 2 Analog IN, 2 Analog OUT
- P3 FlexPower, Thermocouple
- P4 FlexPower, RTD
- P5 FlexPower, 2 Disc IN, 2 Disc OUT, 4 Analog IN
- P6 Serial interface
- P7 FlexPower, 12 NPN Discrete IO
- P8 12 PNP Discrete IO
- P12 FlexPower, SDI-12, Bridge, Counter, Disc, Analog
- P14 1 Configurable Discrete IN, 1 Configurable Analog IN, 1 Thermistor, 1 Async Counter, 1 SP
- P15 2 Selectable Discrete IN, 2 0–10V Analog IN, 2 AC/DC Relay (SPDT), 2 PNP Disc OUT, 2 0–10V Analog OUT
- P16 2 Configurable Disctete IN, 2 High-Speed Async Counters, 4 NMOS OUT
- PM2 Pre-mapped, 4 Discrete OUT, 2 Analog IN, 2 Analog OUT

PM8 – Pre-mapped, 12 Discrete IO

PM8L - Pre-mapped, 12 Discrete IO, No LCD

PB1 – Board Module, FlexPower, 2 Discrete IN, 2 Discrete OUT, 2 Analog IN

PB2 - Board Module, 2 Discrete IN, 2 Discrete OUT, 2 Analog IN, 2 Analog OUT

DCLATCH - 1 Discrete IN, 1 Event Counter, 1 DC Latching (H-Bridge) OUT



Custom products are available and are designated with a 6-digit number following the standard model number. For more information about ordering a product customized for your specific needs, contact Banner Engineering Corp.

Not all model combinations are available.

Models listed with an L (Housing/Option) are basic units that may not include all listed options in the I/O column.

#### MultiHop Models





### Accessories

#### DX85 Models



IO Custom products are available and are designated with a 6-digit number following the standard model number. For more information about ordering a product customized for your specific needs, contact Banner Engineering Corp.

#### **Battery Supply Modules**



