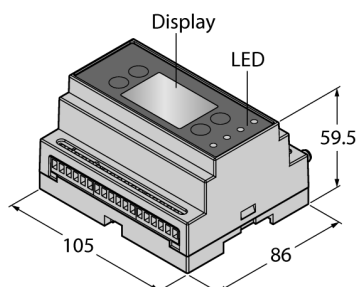


# Radio Transmission System

## DXM Network Controller

### DXM100-B1R3



- Integrated signal strength indicator
- Configuration via DIP switch and software
- LCD display and configurable LEDs
- Optional DX80 Gateway or Data Radio
- Logic functions, supports ScriptBasic
- Email and cloud function, timing and data logger
- Alternative register assignment
- Operating voltage: 12...30 VDC or battery operation
- Inputs: 4 x configurable (analog/discrete)
- Outputs: 4x NMOS, 2x 4...20 mA/0...10 V, 2x switch power
- Interfaces: RS232, RS485, Ethernet, USB
- Protocols: Modbus RTU, EtherNet/IP, Modbus TCP, CAN

#### Functional principle

In addition to the organization of a DX80 wireless network, the DXM network controller offers, as a gateway or data radio master, a variety of functions. This small control unit works with various bus protocols and allows the processing of data with logic functions, timed actions and registry manipulations. Data can be logged on an internal SD card, e-mails can be sent via Ethernet if necessary etc. The controller is set via PC software and can be configured for the radio network with the familiar UCT or MCT tools of the DX80 series.

#### Conformity:

FCC-ID UE300DX80-2400. This device complies with FCC para.15, subpara. C, 15.247  
 ETSI/EN: In compliance with EN 300 328: V1.8.1 (2014-04)  
 IC: 7044A-DX8024  
 Radiation protection 10V/m for 80-2700 MHz acc. to EN 61000-6-2  
 Shock and vibration resistant: IEC 68-2-6 and IEC 68-2-7

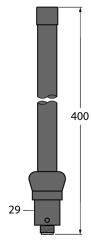
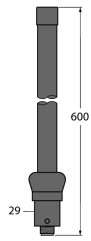
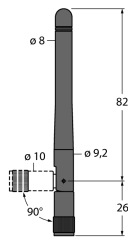
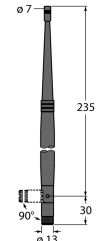
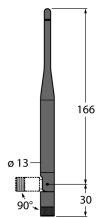
|                               |                                                           |
|-------------------------------|-----------------------------------------------------------|
| <b>Type designation</b>       | DXM100-B1R3                                               |
| Ident no.                     | 3800137                                                   |
| <b>Type of radio</b>          | short-range                                               |
| Relative level of spurious    | -20 dB                                                    |
| Wireless data                 |                                                           |
| Type of radio                 | short-range                                               |
| Installation                  | stationary                                                |
| Function                      | Star topology                                             |
| Device type                   | Gateway                                                   |
| Frequency band                | 2.4 GHz ISM band                                          |
| Frequency range               | 2.402 - 2.483 GHz                                         |
| Number of radio channels      | 50                                                        |
| Channel width                 | 1 MHz                                                     |
| Spread spectrum technology    | FHSS (Frequency Hopping Spread Spectrum)                  |
| Single-Carrier Residence Time | 7.8 ms                                                    |
| Response time typical         | < 62.5 ms                                                 |
| Max. range                    | ≤ 3200 m                                                  |
| Output power ERP              | 18 dB/65 mW                                               |
| Output power EIRP             | 20 dB/100 mW                                              |
| Installation                  | stationary                                                |
| Frequency range               | 2.402 - 2.483 GHz                                         |
| Frequency band                | 2.4 GHz ISM band                                          |
| Number of radio channels      | 50                                                        |
| Channel width                 | 1 MHz                                                     |
| Spread spectrum technology    | FHSS (Frequency Hopping Spread Spectrum)                  |
| Single-Carrier Residence Time | 7.8 ms                                                    |
| Response time typical         | < 62.5 ms                                                 |
| Max. range                    | ≤ 3200 m                                                  |
| Output power ERP              | 18 dB/65 mW                                               |
| Output power EIRP             | 20 dB/100 mW                                              |
| <b>Number of channels</b>     | 4                                                         |
| Input type                    | NPN/PNP / 0...20 mA / 0...10 V / 10k thermistor / counter |
| Number of channels            | 4/2                                                       |
| Output type                   | NMOS/0...20 mA or 0...10 V                                |
| <b>Design</b>                 | Rectangular                                               |
| Housing material              | Plastic, PC, Grey                                         |
| Ambient temperature           | -20...+80 °C                                              |
| Protection class              | IP20                                                      |
| Dimensions                    | 86 x 105 x 59.45 mm                                       |
| <b>Power-on indication</b>    | LED, Green                                                |
| Tests/approvals               |                                                           |

# Radio Transmission System

## DXM Network Controller

### DXM100-B1R3

#### Function accessories

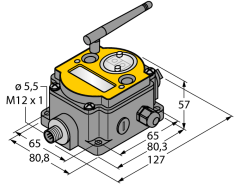
| Type code | Ident no. | Description                                   | Dimension drawing                                                                     |
|-----------|-----------|-----------------------------------------------|---------------------------------------------------------------------------------------|
| BWA-206-A | 3081081   | External antenna 6 dBi, N-female              |    |
| BWA-208-A | 3081080   | External antenna 8.5 dBi, N-female            |    |
| BWA-202-C | 3077816   | Internal antenna 2 dBi, RP-SMA male, standard |  |
| BWA-205-C | 3077817   | Internal antenna 5 dBi, RP-SMA male           |  |
| BWA-207-C | 3077818   | Internal antenna 7 dBi, RP-SMA male           |  |

# Radio Transmission System

## DXM Network Controller

### DXM100-B1R3

#### Function accessories

| Type code    | Ident no. | Description                                                                                                          | Dimension drawing                                                                   |
|--------------|-----------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| DX80N2X6S-P2 | 3017534   | DX80 node, 2.4 GHz, external antenna, RS485 interface, inputs: 4 × PNP 2 × 0...20 mA, outputs: 4 × PNP 2 × 0...20 mA |  |