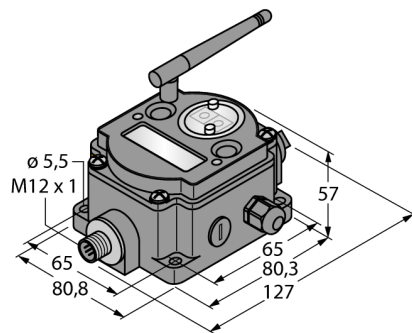


# Radio Transmission System

## Star Topology

### Performance Gateway Pro (FlexPower)

#### DX80P2A6S-P



- External antenna (RG58 RP-SMA connection)
- Integrated signal strength indicator
- Configuration via DIP switch
- Modbus RTU communication, RS485 interface
- Modbus TCP or EtherNet/IP
- Integrated web browser
- Deterministic data transmission
- Frequency hopping FHSS
- Time Division Multiplex Access TDMA
- Transmission power: 63 mW, 18 dBm conducted, ≤ 20 dBm EIRP
- Alternative register assignment
- Modbus TCP
- Extended web server functionality
- Operating voltage: 10...30 VDC
- Frequency: 2.4 - 2.4835 GHz ISM band
- Transmission power: 18 dBm conducted, ≤ 20 dBm EIRP
- Spread spectrum: FHSS (Frequency Hopping Spread Spectrum)
- Power consumption: < 60 mA at 24 VDC

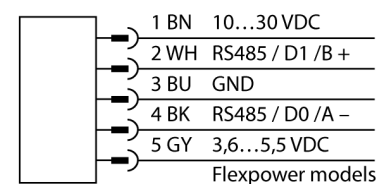
|      |           |
|------|-----------|
| Type | DX80P2A6S |
| ID   | 3018379   |

|                               |                                          |
|-------------------------------|------------------------------------------|
| <b>Wireless data</b>          |                                          |
| Type of radio                 | short-range                              |
| Installation                  | stationary                               |
| Topology                      | Star topology                            |
| 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                                |
| Output power ERP              | 18 dB/65 mW                              |
| Output power EIRP             | 20 dB/100 mW                             |

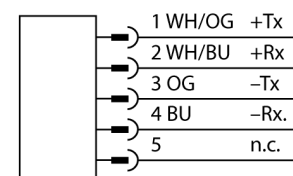
|                        |                                                  |
|------------------------|--------------------------------------------------|
| <b>I/O data</b>        |                                                  |
| Number of channels     | -                                                |
| Input type             | -                                                |
| Number of channels     | -                                                |
| Output type            | -                                                |
| Communication protocol | RS485<br>Modbus RTU<br>EtherNet/IP<br>Modbus TCP |

|                                  |             |
|----------------------------------|-------------|
| <b>Electrical data</b>           |             |
| Runs with battery                | No          |
| Operating voltage $U_s$          | 10...30 VDC |
| DC rated operating current $I_s$ | ≤ 60 mA     |
| Power-on indication              | LED, Green  |

#### Wiring Diagram



#### Ethernet



#### Functional principle

The DX80 system forms a radio-based network for wireless, bidirectional transfer of sensor signals in a star topology. It consists of a gateway that transfers the I/O signals to the control system and to as many as 47 nodes, with each node taking maximally 12 sensors/actuators. The system is configured via the gateway with the included software. You can feed different components with DC power either via mains supply or self-sufficiently via

**Mechanical data**

|                     |                         |
|---------------------|-------------------------|
| Design              | Rectangular, DX80       |
| Housing material    | Plastic, PC             |
| Antenna connection  | RP-SMA female connector |
| Ambient temperature | -20...+80 °C            |
| Protection class    | IP67                    |

**Tests/approvals**

battery or solar cell. The gateway Pro enables communication via RS485 interface as well as via Modbus TCP gateway or Ethernet/IP.

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

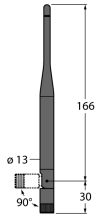
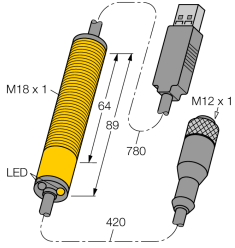
## Accessories

| Type code  | Ident no. |                                                                                                  | Dimension drawing                                                                   |
|------------|-----------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| SMBDX80DIN | 3077161   | Mounting panel for DIN rail, suited for CP80, DX80, K80, Q80, operating temperature: -20...90 °C |  |

## Function accessories

| Type code | Ident no. |                                               | 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           |  |

## Function accessories

| Type code  | Ident no. |                                                                                                                                                                                                                                                             | Dimension drawing                                                                   |
|------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| BWA-207-C  | 3077818   | Internal antenna 7 dBi, RP-SMA male                                                                                                                                                                                                                         |  |
| BWA-HW-006 | 3081325   | Converter cable, RS485 to USB 2.0 converter, female connector, M12 × 1, 5-pin, male connector, USB type A, length 1 m; supplies the connected device with 10 V. An external power supply via a Y-splitter (6634679) is recommended for the connected device |  |