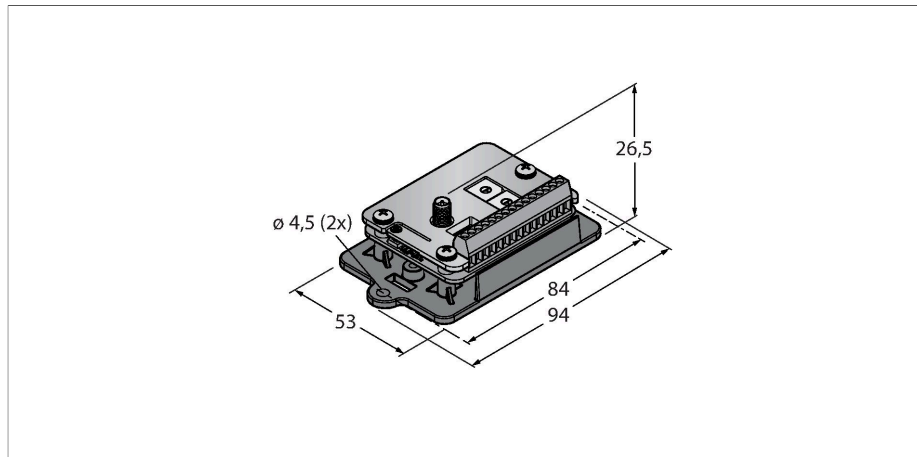


# DX80G2M6S-PB2

## Radio Transmission System – Star Topology Gateway



### Features

- External antenna (RG58 RP-SMA connection)
- External terminal strip
- Integrated signal strength indicator
- Configuration via DIP switch
- Modbus RTU communication, RS485 interface
- Deterministic data transmission
- Frequency hopping FHSS
- Time Division Multiplex Access TDMA
- Transmission power: 63 mW, 18 dBm conducted,  $\leq 20$  dBm EIRP
- Alternative register assignment
- Inputs: 2 x PNP, 2 x 0...20 mA
- Outputs: 2 x PNP, 2 x 0...20 mA
- Power consumption: < 60 mA at 24 VDC

### Technical data

Type	DX80G2M6S-PB2
ID	3025756
<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
Range	3200000 mm
<b>I/O data</b>	
Number of channels	2 / 2
Input type	PNP/0...20 mA
Number of channels	2 / 2
Output type	PNP/0...20 mA
Communication protocol	Modbus RTU RS485

### Functional principle

The DX80 system forms a radio-based network for wireless, bidirectional transmission of sensor signals in a star topology. It consists of a gateway that transmits the I/O signals to the control system and to as many as 47 nodes, with each node taking up to 12 sensors/actuators. The system is configured via the gateway with the included software. You can supply different components with DC voltage either via the power grid or self-sufficiently via battery or solar cell. Depending on the type of gateway used, simultaneous transmission of different measured and switching values is possible as well as communication via RS485 interface.


#### Norms:


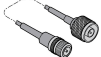
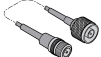
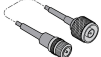
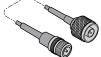
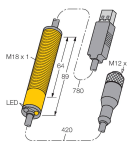
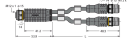
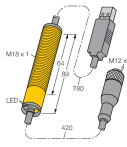
FCC-ID UE300DX80-2400- This device complies with FCC para. 15, subpara. C, 15.247  
 ETSI/EN: In compliance with EN 300 328: V2.2.2 (2019-02)  
 IC: 7044A-DX8024  
 Radiation protection 10 V/m for 80–2700 MHz acc. to EN 61000-6-2  
 Shock and vibration resistance: IEC 68-2-6 and IEC 68-2-7

## Technical data

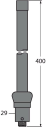
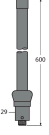
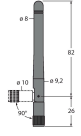
Electrical data	
runs with battery	nein
Operating voltage	10...30 VDC
DC rated operational current	≤ 60 mA
Power-on indication	LED, Green
Mechanical data	
Design	Rectangular, DX80
Dimensions	60.96 x 45.72 x 26.8 mm
Housing material	Plastic, FR4 circuit board
Antenna connection	RP-SMA female connector
Ambient temperature	-40...+85 °C
Relative humidity	0...95 %
Protection class	IP00
Tests/approvals	
Approvals	ATEX II 3 G


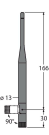
## Accessories

Dimension drawing	Type	ID	
<p>Keine Maßzeichnung vorhanden! No drawing available!</p> 	BWC-LMRSFRPB	3079296	Surge protection, bulkhead fitting, RP-SMA type
	BWC-1MRSFRSB0.2	3078544	Antenna extension, RP-SMA on RP-SMAF bulkhead fitting, 0.2m, RG58, loss 1.05 dB/m
	BWC-1MRSFRSB1	3078337	Antenna extension, RP-SMA on RP-SMAF bulkhead fitting, 1 m, RG58, loss 1.05 dB/m
	BWC-1MRSFRSB2	3078338	Antenna extension, RP-SMA on RP-SMAF bulkhead fitting, 2m, RG58, loss 1.05 dB/m
	BWC-1MRSFRSB4	3077488	Antenna extension, RP-SMA on RP-SMAF bulkhead fitting, 4m, RG58, loss 1.05 dB/m
	BWC-1MRSMN05	3077486	Antenna extension, RP-SMA on N-male, 0.5 m, RG58, loss 0.56 dB/m

Dimension drawing	Type	ID	
	BWC-1MRSMN2	3077820	Antenna extension, RP-SMA on N-male, 2m, RG58, loss 0.56 dB/m
	BWC-4MNFN3	3077489	Antenna extension, N male connector to N female connector, cable length: 3 m, LMR400, coaxial, loss: 0.22 dB/m
	BWC-4MNFN6	3077490	Antenna extension, N-male on N-female, 6m, LMR400, coaxial, loss 0.22 dB/m
	BWC-4MNFN15	3077821	Antenna extension, N-male on N-female, 15 m, LMR400, coaxial, loss 0.22 dB/m
	BWC-4MNFN30	3077822	Antenna extension, N-male on N-female, 30m, LMR400, coaxial, loss 0.22 dB/m
	BWA-HW-006	3081325	Converter cable, RS485 to USB 2.0 converter, female connector, M12 x 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
	VBRK4.5-2RSC4.874T-0.15/0.15/ TXL	6634679	Y-piece with cable, 1 x M12 x 1 female connector to 2 x M12 x 1 male connector; for separate supply of DX80 radio components when connected to the PC via USB adapter
	BWA-UCT-900	3019970	Converter cable with DC power supply for parameterizing DX80 networks via PC, RS485 to USB 2.0 converter, female connector, M12 x 1, 5-pin, male connector, USB type A, length 1 m; supplies the connected device with 10 V

## Accessories

Dimension drawing	Type	ID	
	BWA-2O6-A	3081081	External antenna 6 dBi, N-female
	BWA-2O8-A	3081080	External antenna 8.5 dBi, N-female
	BWA-2O2-C	3077816	Internal antenna 2 dBi, RP-SMA male, standard

Dimension drawing	Type	ID	
 <p>Technical drawing of the BWA-205-C antenna. It shows a vertical antenna with a total length of 205 mm. The base has a diameter of 15 mm. The antenna is tapered towards the top, with a diameter of 7 mm at the tip. The drawing includes dimension lines and numerical values for length and diameter.</p>	BWA-205-C	3077817	Internal antenna 5 dBi, RP-SMA male
 <p>Technical drawing of the BWA-207-C antenna. It shows a vertical antenna with a total length of 166 mm. The base has a diameter of 13 mm. The antenna is tapered towards the top, with a diameter of 7 mm at the tip. The drawing includes dimension lines and numerical values for length and diameter.</p>	BWA-207-C	3077818	Internal antenna 7 dBi, RP-SMA male