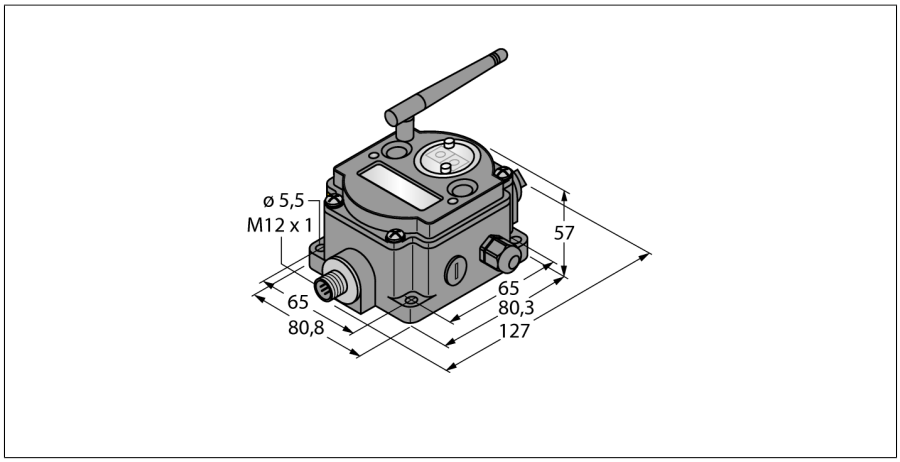
Radio Transmission System
Star Topology
Gateway
DX80G2M6S0P0M4M4



- External antenna (RG58 RP-SMA connection)
- Integrated signal strength indicator
- Configuration via DIP switch
- Modbus RTU communication, RS485 interface
- Deterministic data transmission
- Frequency hopping FHSS
- Time Division Multiplex Access (TDMA)
- The BWA-HW-006 converter cable and the DX80 User Configuration Software are required for mapping inputs to outputs in the network
- Inputs: 4 x 0…20 mA
- Outputs: 4 x 0…20 mA
- Power consumption: < 60 mA at 24 VDC

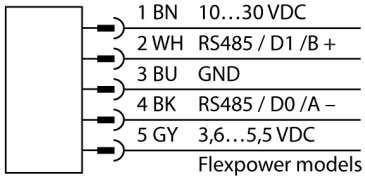
Type	DX80G2M6S0P0M4M4
ID	3078861

Wireless data	
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

I/O data	
Number of channels	4
Input type	0…20 mA
Number of channels	4
Output type	0…20 mA
Communication protocol	RS485 Modbus RTU

Electrical data	
Runs with battery	No
Operating voltage U_B	10…30 VDC
DC rated operating current I_e	≤ 60 mA
Power-on indication	LED, Green

Wiring Diagram



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

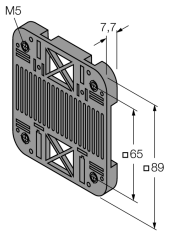
Edition • 2025-02-26T13:13:12+01:00

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

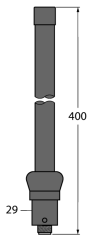
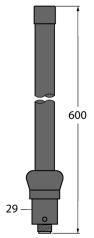
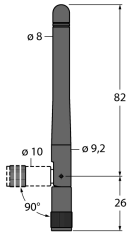
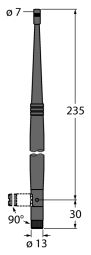
Tests/approvals

Edition • 2025-02-26T13:13:12+01:00

Accessories

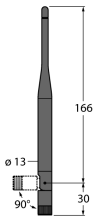
Type code	Ident no.		Dimension drawing
SMBDX80DIN	3077161	Mounting panel for DIN rail, suited for CP80, DX80, K80, Q80, operating temperature: -20…90 °C	

Function accessories

Type code	Ident no.		Dimension drawing
BWA-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	
BWA-2O5-C	3077817	Internal antenna 5 dBi, RP-SMA male	

Edition • 2025-02-26T13:13:12+01:00

Function accessories

Type code	Ident no.		Dimension drawing
BWA-2O7-C	3077818	Internal antenna 7 dBi, RP-SMA male	

Edition • 2025-02-26T13:13:12+01:00