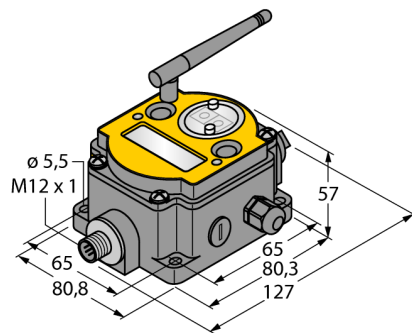


Radio Transmission System

Star Topology

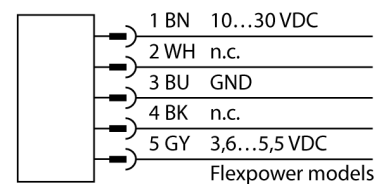
Node (FlexPower)

DX80N2X2S-P5



- External antenna (RG58 RP-SMA connection)
- Integrated signal strength indicator
- Configuration via DIP switch
- Deterministic data transfer
- Frequency hopping FHSS
- Time Division Multiplex Access TDMA
- Transmission power: 63 mW, 18 dBm conducted, ≤ 20 dBm EIRP
- External battery supply or 10...30VDC
- Inputs: 2 x NPN, 4 x 0...20 mA/0...10 VDC
- Outputs: 2 x NMOS

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

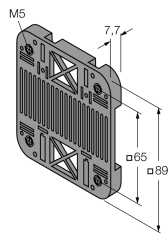
Type	DX80N2X2S-P5
ID	3018143
Wireless data	
Type of radio	short-range
Installation	stationary
Topology	Star topology
Function	Star topology
Device type	Node
Frequency band	2.4-GHz ISM band
Frequency range	2.402 - 2.483 GHz
Number of radio channels	50
Channel width	1 MHz
Spread spectrum technology	FHSS (Frequency Hopping Spread Spectrum)
Single-Carrier Residence Time	7.8 ms
Response time typical	< 1000 ms
Output power ERP	18 dB/65 mW
Output power EIRP	20 dB/100 mW
I/O data	
Number of channels	2/4
Input type	NPN/0...20 mA/0...10 VDC
Number of channels	2
Output type	NMOS
Electrical data	
Runs with battery	Yes
Operating voltage U _s	3.6...5.5 VDC
Power-on indication	LED, Green

Mechanical data

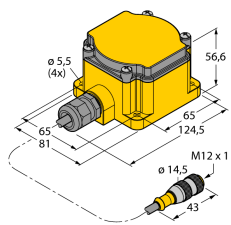
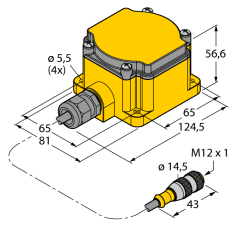
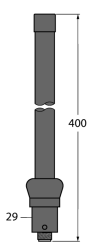
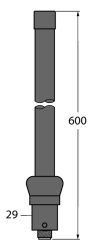
Design	Rectangular, DX80
Housing material	Plastic, PC
Antenna connection	RP-SMA female connector
Ambient temperature	-20...+80 °C
Relative humidity	0...95%
Protection class	IP67

Tests/approvals

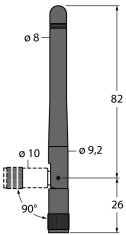
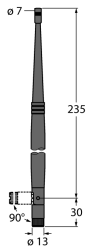
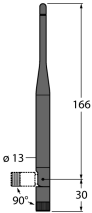
Accessories

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
DX81-LITH	3086016	Battery Case incl. XL-205F Battery	
DX81-LITH-NB	3086018	Battery case; Recommended Battery XL-205F	
BWA-206-A	3081081	External antenna 6 dBi, N-female	
BWA-208-A	3081080	External antenna 8.5 dBi, N-female	

Function accessories

Type code	Ident no.		Dimension drawing
BWA-2O2-C	3077816	Internal antenna 2 dBi, RP-SMA male, standard	 Technical drawing of the BWA-2O2-C antenna. It is a vertical, cylindrical antenna with a flared top. Dimensions shown: top diameter is $\varnothing 8$, middle diameter is $\varnothing 9,2$, bottom diameter is $\varnothing 10$. Total height is 82. The bottom section has a height of 26 and a 90° bend.
BWA-2O5-C	3077817	Internal antenna 5 dBi, RP-SMA male	 Technical drawing of the BWA-2O5-C antenna. It is a vertical antenna with a wider top section. Dimensions shown: top diameter is $\varnothing 7$, middle diameter is $\varnothing 13$. Total height is 235. The bottom section has a height of 30 and a 90° bend.
BWA-2O7-C	3077818	Internal antenna 7 dBi, RP-SMA male	 Technical drawing of the BWA-2O7-C antenna. It is a vertical antenna with a wider top section. Dimensions shown: top diameter is $\varnothing 13$. Total height is 166. The bottom section has a height of 30 and a 90° bend.