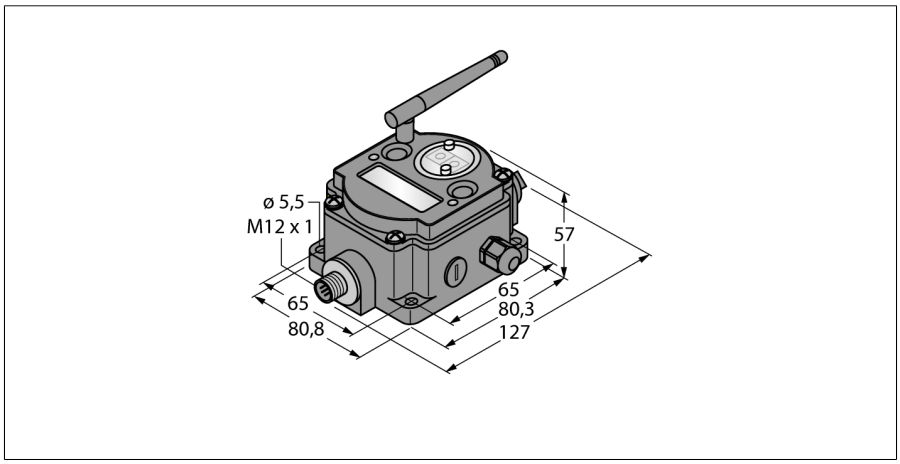
Radio Transmission System
Star Topology
Performance Gateway Pro (FlexPower)
DX80P2T6S-P



- **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**
- **Power consumption: < 60 mA at 24 VDC**

Type designation	DX80P2T6S-P
Ident no.	3018377

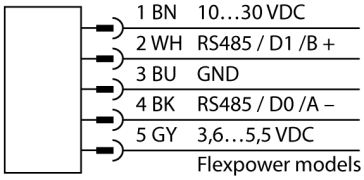
Type of radio	short-range
Relative level of spurious	-20 dB
Wireless data	
Type of radio	short-range
Installation	stationary
Function	Star topology
Device type	Gateway
Frequency band	2,4 GHz ISM Band
Frequency range	2.402 - 2.483 GHz
Number of radio channels	50
Channel width	1 MHz
Spread spectrum technology	FHSS (Frequency Hopping Spread Spectrum)
Single-Carrier Residence Time	7.8 ms
Response time typical	< 62.5 ms
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
Output power ERP	18 dB/65 mW
Output power EIRP	20 dB/100 mW

Number of channels	-
Input type	-
Number of channels	-
Output type	-

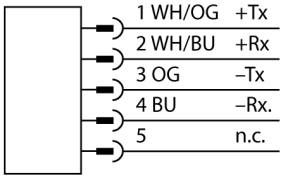
Design	Rectangular
Housing material	Plastic, PC
Ambient temperature	-20…+80 °C
Protection class	IP67
Dimensions	127 x 80.8 x 57 mm

Operating voltage	10…≤ 30 VDC
DC rated operational current	≤ 60 mA
Power-on indication	LED, Green
Tests/approvals	

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 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

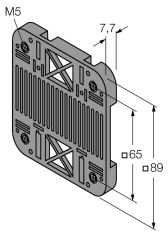
Radiation protection 10V/m for 80-2700 MHz acc. to EN 61000-6-2

Shock and vibration resistant: IEC 68-2-6 and IEC 68-2-7

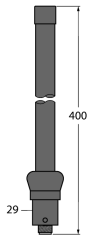
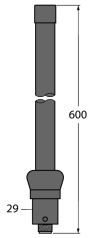
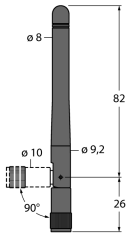
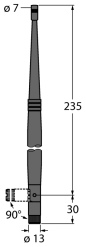
Edition • 2022-08-19T10:51:50+02:00

Radio Transmission System
Star Topology
Performance Gateway Pro (FlexPower)
DX80P2T6S-P

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	

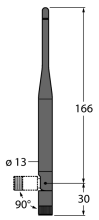
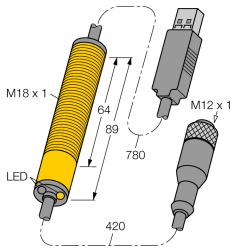
Function accessories

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 • 2022-08-19T10:51:50+02:00

Radio Transmission System
Star Topology
Performance Gateway Pro (FlexPower)
DX80P2T6S-P

Function accessories

Type code	Ident no.		Dimension drawing
BWA-2O7-C	3077818	Internal antenna 7 dBi, RP-SMA male	
BWA-HW-006	3081325	Converter cable, RS485 to USB 2.0 converter, female, M12 × 1, 5-pin, male, USB type A, length 1 m; supplies the connected device with 10 V. An external power supply via a Y-splitter is recommended for the connected device	

Edition • 2022-08-19T10:51:50+02:00

 Hans Turck GmbH & Co.KG ● D-45472 Mülheim an der Ruhr ● Witzlebenstraße 7 ● Tel. 0208 4952-0 ● Fax 0208 4952-264 ● more@turck.com ● www.turck.com