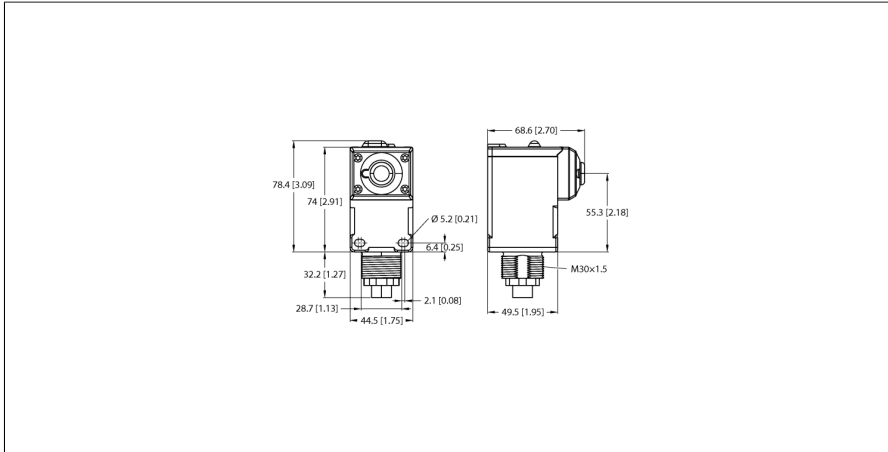


# Radio Transmission System

## Star Topology

### Node for Connecting External Sensors

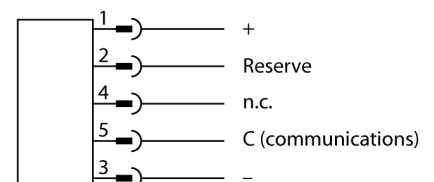
#### DX80N2Q45U



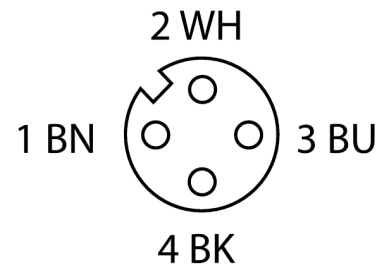
Type	DX80N2Q45U
ID	3800203
<b>Wireless data</b>	
Type of radio	short-range
Installation	stationary
Topology	Star topology
Device type	Wireless sensor
Frequency band	2.4-GHz ISM band
Frequency range	2.402...2.483 GHz
Number of radio channels	27
Channel width	2 MHz
Spread spectrum technology	FHSS (Frequency Hopping Spread Spectrum)
Single-Carrier Residence Time	7.8 ms
Response time typical	< 250 ms
Output power ERP	18 dB/65 mW
Output power EIRP	18 dB/65 mW
<b>I/O data</b>	
Number of channels	1
Input type	1-wire serial
Number of channels	4
Output type	4-color LED indicator
Communication protocol	1-wire-serial
<b>Electrical data</b>	
Runs with battery	Yes
Operating voltage $U_s$	3.6...5.5 VDC
DC rated operating current $I_s$	≤ 0.1 mA
Excess gain indication	LED, red
Power-on indication	LED, Green

- Protection class IP67
- Mechanical screw-in thread M30 × 1.5
- Connection via M12 × 1 female connector, 4-pin
- Integrated multi-color display lights
- 2.4 GHz frequency band
- Frequency hopping FHSS
- Time division multiplex access - TDMA
- Operating voltage: 3.6...5.5 VDC
- Current consumption: ≤ 100 μA
- Supply via 2x 3.6 V Li-ion AA batteries, supplied with the device
- FCC-ID UE300DX80-2400 This device complies with FCC para. 15, sub para. C, 15.247 ETSI/EN: In compliance with EN 300 328: V1.7.1 (2006-05) IC: 7044A-DX8024
- Radiation protection 10 V/m for 80-2700 MHz acc. to EN 61000-6-2

#### Wiring Diagram



Mechanical data	
Design	Rectangular, Q45
Housing material	Plastic, PBT, Black
Electrical connection	Connector, 4-pin
Antenna connection	Internal (wire loop)
Ambient temperature	-40...+70 °C
Storage temperature	-40...+70°C
Relative humidity	0...90%
Protection class	IP67
Tests/approvals	
MTTF	67 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, cURus, CSA



### Functional principle

The Q45 wireless nodes can be integrated into a DX80 wireless network in star topology. Thanks to the integrated battery, these devices work fully autonomously and can be connected directly with any DX80 gateway or DXM controller. Some models include a sensor element or can be connected to external sensors or other transducers. Depending on the type of operation, the battery service life may last several years.

Conforms to EN 300 328: V2.2.2 (2019-02)

## Accessories

Type code	Ident no.		Dimension drawing
K50UX1CRA	3094613	Ultrasonic sensor, diffuse-mode sensor, 3 m range, serial interface for connection to DX80 nodes	
M12FTH4Q	3025895	Temperature and humidity sensor, metal housing, protection class IP67, serial interface for connection to DX80 nodes	
BWA-BATT-006	3017987	Lithium-ion battery, 3.6 VDC, 2400 mAh, AA, GGV UN3090/CL9	