

Bridge E

This device enables an ultra-reliable real-time wireless link between Ethernet-based industrial devices.

System Features

Configuration software available for Windows and Linux

UDP-based runtime control interface

Support for up to five freely configurable priority classes

Wireless Interfaces

Antenna	External SMA connectors ^[1]
Max. RF Output Power ^[2]	Europe limited to 14 dBm e.i.r.p. USA/CA up to 30 dBm e.i.r.p.

Wired Interfaces

M12, 4-pole, d-coded	Ethernet with PoE
M12, 5-pole, a-coded	24 V DC and digital input

Communication Properties

Channel Bandwidth	20 MHz
Data Throughput per channel	Device: up to 700 kbit/s Installation: up to 14 Mbit/s
Latency ^[3]	Down to 2 ms
Reliability (packet loss rate (PLR) (down to))	Short distance: 10 ⁻⁹ Prioritized traffic: 10 ⁻⁷ Best effort: 10 ⁻⁵
Bridging Traffic	Packet-oriented protocols, such as PROFINET (PROFIsafe), EtherNet/IP (CIP SAFETY), Power-Link, CC-Link, UDP, TCP/IP, etc.
Network Participants per Channel	Maximum 20 (extension on request)
Total System Participants while Roaming	Maximum 240 ^[4] (extension on request)

[1] depending on model either one (Antenna included) or two (Antenna and SMA IP65 cap included)

[2] depending on antenna

[3] application to application (ethernet interface)

[4] triggered roaming between cells



General Properties

Dimensions	84 × 82 × 55 mm ^[5]
Weight	189 g ^[5]
IP Protection Class	IP65
Mounting	Wall mount
Accessories	DIN rail mount ^[6]
Operating Temperature	-20 °C to +65 °C
Range	Up to 80 m ^[7]
Power Supply	24 V DC +/-10% or 48 V DC (PoE 802.3at Type 1)
Power Consumption	Max. 3.5 W; typ. 1 W
Boot up Duration ^[8]	Fixed IP: ~ 5 s DHCP: ~ 10-15 s

Conformance

EU (CE)	7 certified channels 5725–5875 MHz
USA (FCC)/ Canada (ISED)	9 certified channels 5150–5250 MHz 5725–5850 MHz
Other Certification	RoHS 3, WEEE, RED (UL, Atex on request)

[5] without antenna

[6] included

[7] depending on antenna, TX power and environment

[8] standard boot option: fixed IP; DHCP: average boot time