

TECHNICAL DATA

## Smart Buildings

ISP/S 8.1.1.1

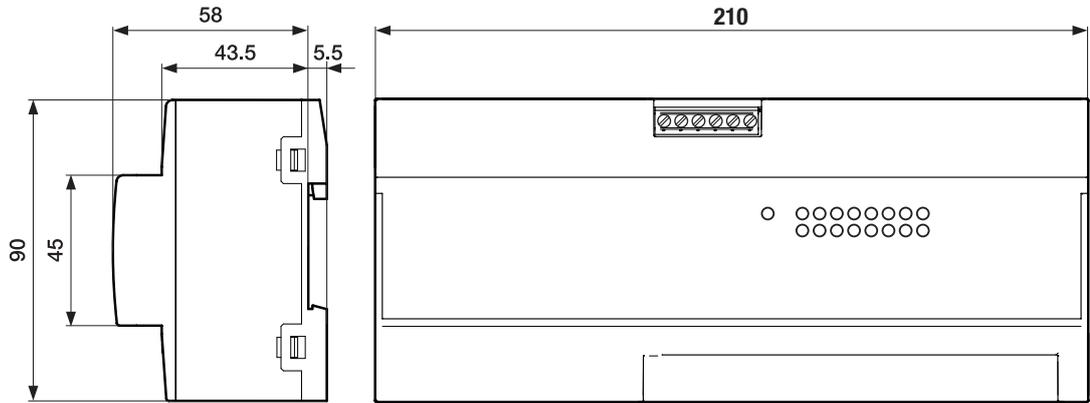
IP Switch-PoE



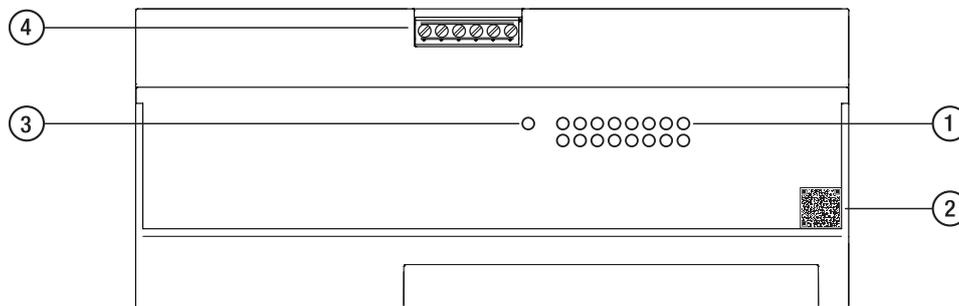
### Description of product

The device is designed for the special requirements of building automation. The device is designed for installation in electrical distribution boards and small casings for rapid mounting on a 1.38 in (35 mm) mounting rail in accordance with EN 60715. The device meets the relevant industry standards, provides very high operational reliability, even under extreme conditions, and also longterm reliability and flexibility.

**Dimension drawing**



**Connection - Front view**



**LEGEND**

- 1 LED display elements for port status and PoE status
- 2 Data matrix code
- 3 LED display element for device status
- 4 6-pin terminal block with screw lock

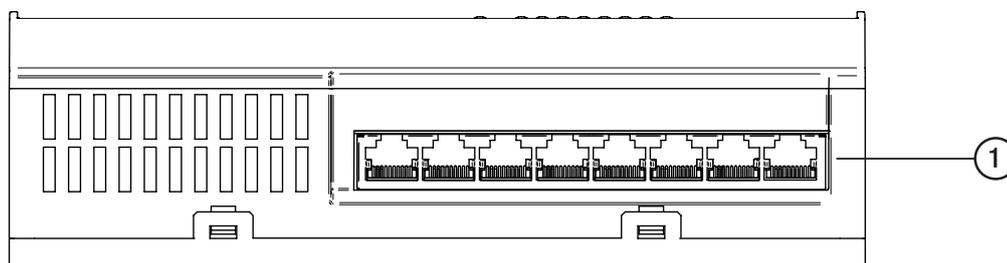
**NOTE**

The packaging and the front of the device are labeled with matrix codes (QR codes or data matrix codes). These codes are used for unique identification of the device and include the following information:

- Device serial number
- Link to the product page
- Order number

The matrix codes can be read using any mobile device with an appropriate app.

**Connection - View from below**



**LEGENDE**

- 1 8 × RJ45 socket for 10/100-Mbit/s Twisted Pair connections

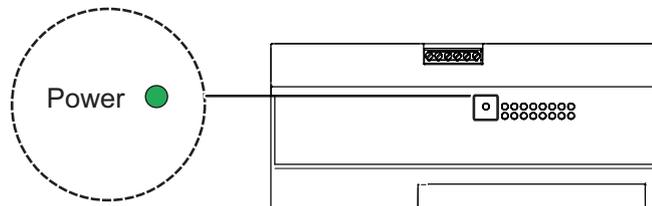
## Operating and display elements

### Display elements

After the supply voltage is switched on, the device performs a self-test. During this process, various LEDs light up.

### Device state

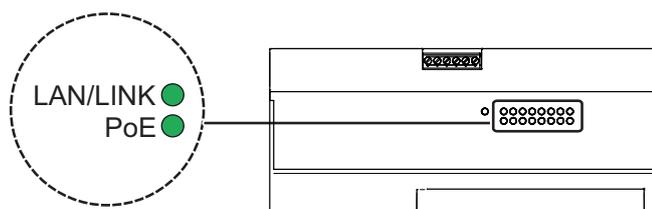
This LED provides information on the status of the power supply.



Color	Activity	Meaning
green	lights up	Supply voltage is on. Device is ready for operation
–	none	Supply voltage is too low. Device is not ready for operation

### Port-Status

These LEDs provide port-related information.



LAN/LINK (link status/data)	Color	Activity	Meaning
	green	lights up	Device detects a valid link
		flashing	Device is transmitting and/or receiving data
	–	none	Device detects an invalid or missing link

PoE	Color	Activity	Meaning
	grün	lights up	Powered device is supplied with power
		flashing 1 time a period	No power supply of the Powered Device as the power output required by the Powered Device cannot be provided on this port
	–	none	No powered device connected

<b>Technical data</b>			
<b>Dimensions</b> W × H × D	IP Switch ISP/S 8.1.1.1	See Dimension drawing on page 2	
<b>Modular width</b>		12 MW	
<b>Mounting Position</b>		Any	
<b>Weight</b>		14.46 oz (410 g)	
<b>Supply voltage</b>	1 voltage input		
	Rated voltage range	100 V AC ... 240 V AC, 50 Hz ... 60 Hz	
	Voltage range incl. maximum tolerances	85 V AC ... 264 V AC, 47 Hz ... 63 Hz	
	Power consumption/power output (without PoE load)	max. power consumption	2.5 W
		Power output	8.6 Btu (IT)/h
	Power consumption/power output (with PoE load inc. 55 W PoE)	max. power consumption	11 W + 55 W PoE
		Power output	37.6 Btu (IT)/h + 55 W PoE
	Connection type	6-pin terminal block with screw lock	
		Tightening torque	4.4 lb-in ... 5.3 lb-in (0.5 Nm ... 0.6 Nm)
		min. conductor diameter	0.14 mm <sup>2</sup> (AWG26)
		max. conductor diameter	1.5 mm <sup>2</sup> (AWG16)
	Stripping length	6 mm	
	Power loss buffer	10 ms bei 115 V AC 30 ms bei 230 V AC	
	Back-up fuse	16 A with 1.5 mm <sup>2</sup> (AWG16) or smaller according to the wire cross-section used	
	Peak inrush current	30 A at 115 V AC 50 A at 230 V AC	
	Overvoltage category	III according to EN 60664-1	
<b>Climatic conditions during operation</b>	Ambient air temperature <sup>1)</sup>	+23 °F ... +140 °F (-5 °C ... +60 °C) Derating	
	Humidity	20 % ... 90 % (non-condensing)	
	Air pressure	Without derating	
		• min. 795 hPa (+6562 ft; +2000 m) • max. 1060 hPa (-1312 ft; -400 m)	
		With derating	
		• min. 700 hPa (+9842 ft; +3000 m)	
<b>Climatic conditions during storage</b>	Ambient air temperature <sup>1)</sup>	-40 °F ... +185 °F (-40 °C ... +85 °C)	up to 3 months
		-40 °F ... +158 °F (-40 °C ... +70 °C)	up to 1 year
		-40 °F ... +122 °F (-40 °C ... +50 °C)	up to 2 years
		+32 °F ... +86 °F (0 °C ... +30 °C)	up to 10 years
	Humidity	10 % ... 95 % (non-condensing)	
	Air pressure	• min. 600 hPa (+13123 ft; +4000 m) • max. 1060 hPa (-1312 ft; -400 m)	
<b>Pollution degree</b>		2 according to EN 60664-1	
<b>Protection classes</b>	Degree of protection	IP20	
<b>Fire classification</b>		Flammability V-0 as per UL 94	
<b>Certificates and declarations</b>	CE declaration of conformity	→ <a href="#">9AKK107992A2180</a>	

<sup>1)</sup> Temperature of the ambient air at a distance of 2 in (5 cm) from the device

<b>Ethernet PoE Ports</b>	
<b>8 x 10/100-Mbit/s twisted pair port</b>	
according to the IEEE 802.3af (Class 1, 2, 3) 10BASE-T/100BASE-TX standard	
Total power	55 W
• Maximum power delivered per port	15.4 W
• Maximum power at the Powered Device	12.95 W
Port RJ45 socket	
Port supports:	<ul style="list-style-type: none"> <li>• Autonegotiation</li> <li>• Autopolarity</li> <li>• Autocrossing</li> <li>• 100 Mbit/s half-duplex mode, 100 Mbit/s full duplex mode</li> <li>• 10 Mbit/s half-duplex mode, 10 Mbit/s full duplex mode</li> </ul>

### Derating

Note the derating values for PoE device variants.  
The derating values depend on the ambient  
air temperature of the power supply unit combined  
with the PoE load and the input voltage.

<b>Ambient air temperature</b>	<b>Permitted PoE load</b>
up to 45 °C (113 °F)	55 W
45 °C ... 50 °C (113 °F ... 122 °F)	45 W
50 °C ... 55 °C (122 °F ... 131 °F)	37 W
55 °C ... 60 °C (131 °F ... 140 °F)	29 W

<b>Input voltage</b>	<b>Derating of PoE load</b>
from 100 V AC	0 W
100 V AC ... 90 V AC	5 W
90 V AC ... 85 V AC	8 W

<b>Network range</b>	
<b>10/100-Mbit/s twisted pair port</b>	
Length of a twisted pair segment	max. 328 ft (100 m) (for Cat5e cable)

<b>Other underlying technical standards</b>	
<b>Name</b>	
CSA C22.2 No. 142	Canadian National Standard(s) – Process Control Equipment – Industrial Products
EN 55032	Electromagnetic compatibility of multimedia equipment – Emission Requirements
FCC 47 CFR Part 15	Code of Federal Regulations
UL/IEC 61010-1, UL/IEC 61010-2-201	Safety for Control Equipment

The device has an approval based on a specific standard exclusively if the approval indicator appears on the device casing.

The device generally fulfills the technical standards named in their current versions.

<b>Ordering details</b>					
<b>Device type</b>	<b>Product Name</b>	<b>Order No.</b>	<b>bbn 40 53546 EAN</b>	<b>Weight 1 pcs. [kg]</b>	<b>Packaging [pcs.]</b>
<b>ISP/S 8.1.1.1</b>	IP Switch-PoE	2CDG120083R0011	04552 9	0.41	1

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**NOTE**

For a detailed description, please refer to the technical documentation for the device. It is available for download on the Internet at [www.abb.com](http://www.abb.com).



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