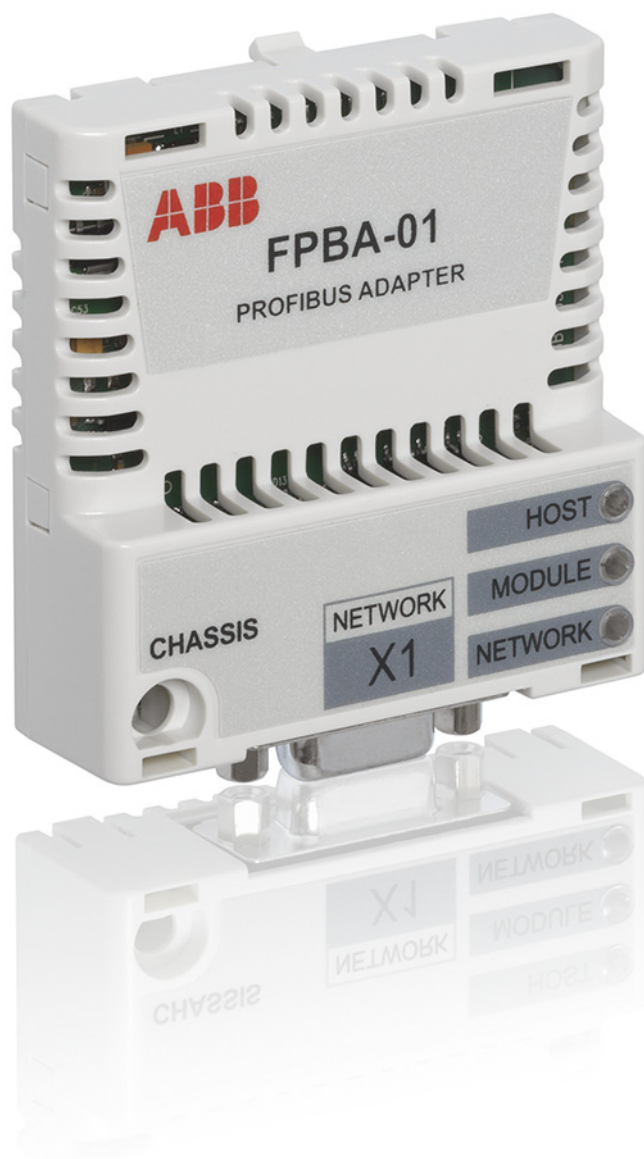


ABB fieldbus options

User's manual

FPBA-01 PROFIBUS DP adapter module



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# Technical data

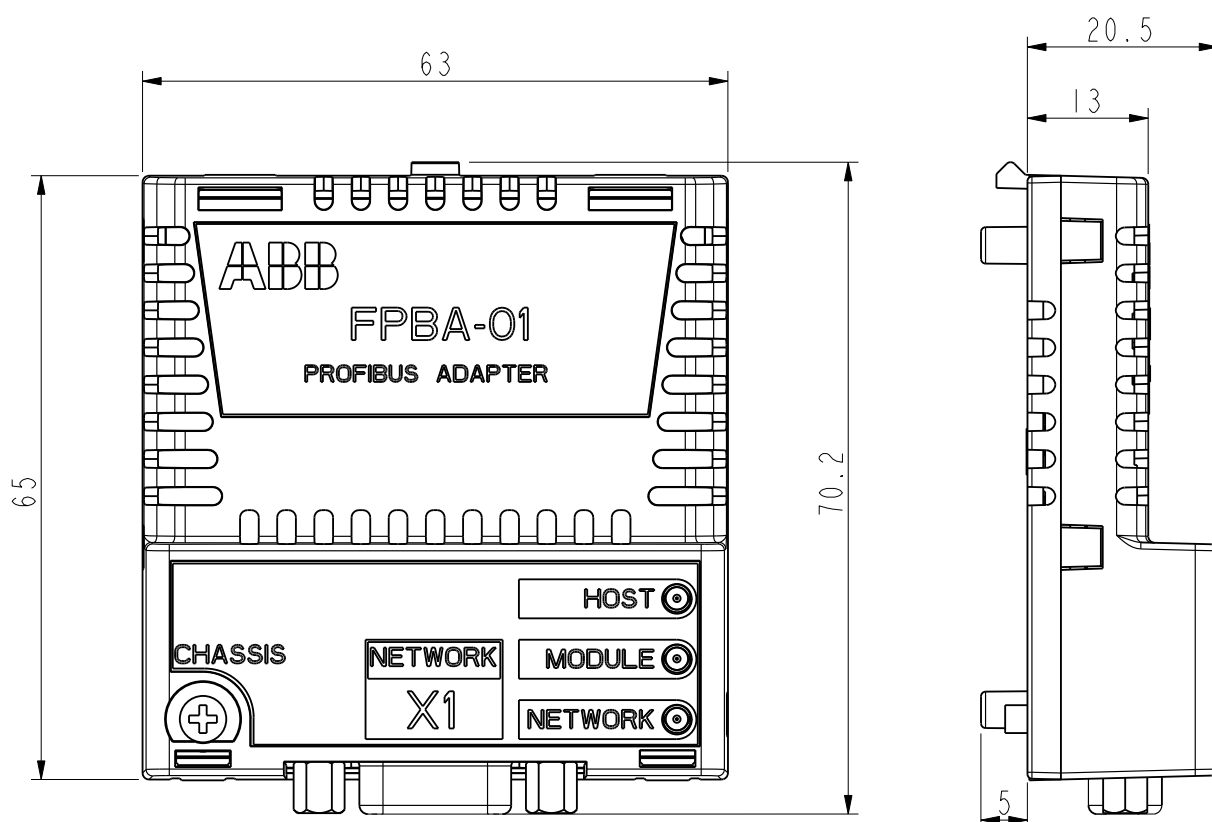
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## What this chapter contains

This chapter contains the technical data of the adapter module and the PROFIBUS link.

## FPBA-01

Enclosure:



**Mounting:** Into the option slot on the drive

**Degree of protection:** IP20

**Ambient conditions:** The applicable ambient conditions specified for the drive in its manuals are in effect.

**Indicators:** Three bicolor LEDs (HOST, MODULE, NETWORK)

**Connectors:**

- 20-pin connector to drive (X2)
- 9-pin D-SUB connector to bus (X1)

**Power supply:**

- +3.3 V  $\pm 5\%$  max. 450 mA (supplied by the drive)
- Isolated +5 V supply available for bus termination circuitry (X1 pins 5 and 6). 30 mA max.

**General:**

- Estimated min. lifetime: 100 000 h
  - All materials UL/CSA-approved
  - Complies with EMC standard EN 61800-3:2004
  - Bus interface functionally isolated from drive
-

# PROFIBUS link

**Compatible devices:** All PROFIBUS-compliant devices

**Medium:** Shielded twisted pair RS-485 cable (PROFIBUS-approved cable recommended)

- Termination: 220 ohms, or active termination circuitry at each end of trunk cable (termination not built in the FPBA-01 module)
- Specifications:

Parameter	Line A PROFIBUS DP	Line B DIN 19245 Part 1	Unit
Impedance	35...165 (3...20 MHz)	100...130 (f > 100 kHz)	ohm
Capacitance	< 30	< 60	pF/m
Resistance	< 110	–	ohm/km
Wire gauge	> 0.64	> 0.53	mm
Conductor area	> 0.34	> 0.22	mm <sup>2</sup>

- Maximum bus length:

<b>Transfer rate (kbit/s)</b>	≤ 93.75	187.5	500	1500	3000	6000	12000
<b>Line A (m)</b>	1200	1000	400	200	100	100	100
<b>Line B (m)</b>	1200	600	200	–	–	–	–

**Topology:** Trunk line, drop lines allowed. Max. 126 nodes with repeaters (31 nodes + repeater per section)

**Transfer rate:** 12 Mb/s max., automatically detected by the adapter module

**Serial communication type:** Asynchronous, half-duplex RS-485

**Protocol:** PROFIBUS DP