

INDUSTRIAL AUTOMATION PRODUCT

B&R X20HB8884

POWERLINK Link Selector

B&R; X20HB8884 is a compact POWERLINK link selector that connects a POWERLINK device to a redundant cable network. Its two shielded RJ45 interfaces select the higher-quality network path while supporting 100BASE-TX communication at 100 Mbit/s.

IDENTITY	VERIFIED VALUE
Manufacturer	B&R;
Complete model	B&R; X20HB8884
Product role	POWERLINK Link Selector
System family	X20 Redundancy System
Country of origin	Austria

DOCUMENT SCOPE

Exact identity, manufacturer-supported technical data, installation checks, applications, precautions and controlled verification records.

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313

EMAIL sales13@apterpower.com

WEBSITE www.apterpower.com



B&R X20HB8884

Technical Specifications

PARAMETER	VERIFIED VALUE
Device type	POWERLINK compact link selector
Network interfaces	2 shielded RJ45 ports
Physical layer	100BASE-TX
Transfer rate	100 Mbit/s
Duplex mode	Half-duplex
Autonegotiation	Supported
Auto-MDI/MDIX	Supported
Segment length	100 m maximum between stations
Hub propagation delay	0.96 to 1 us
Power consumption	2 W
Electrical isolation	Power supply isolated from POWERLINK IF1 and IF2
Protection rating	IP20
Operating temperature	-25 to 60 C horizontal; -25 to 50 C vertical
Required power module	X20PS8002

Model-Specific Engineering Note

ENGINEERING BOUNDARY

Install B&R; X20HB8884 with X20PS8002, X20TB12, the documented X20BB81 or X20BB82 base and the required hub expansion module. Preserve both redundant cable paths, segment lengths and port assignments, then prove communication through each path separately.

Pre-Installation Checks

NO.	REQUIRED CHECK
1	Verify B&R; X20HB8884 identity, both RJ45 port assignments and the redundant-network drawing.
2	Place the controlled process and both POWERLINK paths in the approved maintenance state.
3	Use X20PS8002, X20TB12 and the documented X20BB81 or X20BB82 bus base.
4	Install the required X20HB2880 or X20HB2885 expansion hardware for the selected architecture.
5	Keep every 100BASE-TX segment at or below the documented 100 m limit.

System Role and Architecture

B&R; X20HB8884 is a compact POWERLINK link selector that connects a POWERLINK device to a redundant cable network. Its two shielded RJ45 interfaces select the higher-quality network path while supporting 100BASE-TX communication at 100 Mbit/s.

FUNCTION 1

Connects a standard POWERLINK device to two redundant cable paths

FUNCTION 2

Selects the available higher-quality network line during operation

FUNCTION 3

Provides two shielded 100BASE-TX RJ45 interfaces

FUNCTION 4

Reports module and bus function through dedicated status indicators

Common Applications

APPLICATION	ENGINEERING CONTEXT
Redundant machine network	B&R; X20HB8884 attaches a POWERLINK device to two cable paths without requiring a looped ring.
Tree-topology redundancy	The link-selector arrangement supports redundant POWERLINK branches in documented tree structures.
Availability retrofit	An existing POWERLINK device gains dual-path connectivity through the compact link-selector assembly.
Network-path commissioning	Separate path tests confirm continued data transfer after either documented cable route is interrupted.

CONTROLLED ACCEPTANCE DUTY

Confirm identity, physical interface, companion hardware, configured values and functional response against the installed-system record before release.

Engineering Precautions

NO.	PRECAUTION
1	Verify B&R; X20HB8884 identity, both RJ45 port assignments and the redundant-network drawing.
2	Place the controlled process and both POWERLINK paths in the approved maintenance state.
3	Use X20PS8002, X20TB12 and the documented X20BB81 or X20BB82 bus base.
4	Install the required X20HB2880 or X20HB2885 expansion hardware for the selected architecture.
5	Keep every 100BASE-TX segment at or below the documented 100 m limit.
6	Preserve shield continuity, cable category, connector labeling and separation from interference sources.
7	Confirm module-status and bus-function indications before fault-injection tests.
8	Interrupt each cable path separately and verify uninterrupted communication, recovery and diagnostic reporting.

Model-Specific FAQ - Part 1

QUESTION	ANSWER
What network function does B&R; X20HB8884 provide?	It is a compact link selector that connects a POWERLINK device to a redundant POWERLINK cable system.
How many network ports are on B&R; X20HB8884?	The module provides two shielded RJ45 interfaces for the redundant 100BASE-TX paths.
Does B&R; X20HB8884 use full-duplex Ethernet?	No. The official technical data specifies half-duplex operation, with autonegotiation and Auto-MDI/MDIX supported.
What cable length limit applies to B&R; X20HB8884?	Each segment between two stations is limited to 100 m under the documented 100BASE-TX arrangement.

Model-Specific FAQ - Part 2

QUESTION	ANSWER
Which hardware is mandatory around B&R; X20HB8884?	B&R; lists X20PS8002, X20TB12, X20BB81 or X20BB82 and the required X20HB2880 or X20HB2885 expansion module.
How does B&R; X20HB8884 choose a redundant path?	The integrated link-selector function transfers data over the highest-quality available network line.
What delay does B&R; X20HB8884 introduce?	The documented hub propagation delay is 0.96 to 1 microsecond.
How should B&R; X20HB8884 redundancy be accepted?	Prove normal traffic first, then interrupt each path independently and verify communication continuity, recovery and the expected status indications.

Related Products on Apter Power

MODEL	APTER POWER PAGE
GE 0552N1QLG132A-06-V1-1	View GE 0552N1QLG132A-06-V1-1 page
GE 151X1202YE03SA04-IS200 STAIH2ADC	View GE 151X1202YE03SA04-IS200STAIH2ADC page
GE 151X1225DF01PC03RA	View GE 151X1225DF01PC03RA page
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GE 269PLUS-100P-120	View GE 269PLUS-100P-120 page
GE 531X111PSHAPG3	View GE 531X111PSHAPG3 page
GE 531X111PSHARG1	View GE 531X111PSHARG1 page

MANUFACTURER SOURCE RECORD

Datasheet X20(c)HB8884
B&R; version 2.31, 2025-08-04

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WHATSAPP / PHONE +86 180 3023 5313
EMAIL sales13@apterpower.com
WEBSITE www.apterpower.com



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