

X20SL8000

SafeLOGIC safety controller

POWERLINK safety data and SafeLOGIC program execution

PRODUCT SNAPSHOT

BRAND

B&R

FAMILY

B&R X20 safety control

PART

X20SL8000

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PRODUCT OVERVIEW

POWERLINK safety data and SafeLOGIC program execution

1

Executes SIL 3 safety applications

2

Coordinates up to twenty safety nodes

3

Communicates through 100 Mbit/s POWERLINK

4

Provides a one-millisecond shortest task class

SYSTEM COMPONENTS

X20 SafeLOGIC bus base

POWERLINK safety nodes

24 V DC supply

SafeDESIGNER project and validation record

TECHNICAL NOTE

Record safety signatures and POWERLINK node identities, restore only the approved SafeDESIGNER project and repeat the complete validation procedure.

TECHNICAL DATA

PARAMETER	VALUE
Safety level	SIL 3; Cat. 4 / PL e
Maximum safety nodes	20
POWERLINK	100 Mbit/s
Shortest task class	1 ms

PARAMETER	VALUE
Supply	24 V DC -15% / +20%
Power consumption	5.1 W
Protection	IP20
Weight	290 g

ENGINEERING NOTE

Record safety signatures and POWERLINK node identities, restore only the approved SafeDESIGNER project and repeat the complete validation procedure.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
IC670ALG620	Related industrial automation product	View IC670ALG620 page
IC670ALG330	Related industrial automation product	View IC670ALG330 page
IC670ALG320	Related industrial automation product	View IC670ALG320 page
IC670ALG310	Related industrial automation product	View IC670ALG310 page
IC670ALG240	Related industrial automation product	View IC670ALG240 page
IC670ALG230	Related industrial automation product	View IC670ALG230 page
IC670MFP100	Related industrial automation product	View IC670MFP100 page
IC670FBI001	Related industrial automation product	View IC670FBI001 page

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Machine safety controller

Executes SIL 3 safety applications

Networked emergency-stop logic

Coordinates up to twenty safety nodes

Safety motion coordination

Communicates through 100 Mbit/s POWERLINK

SafeLOGIC controller renewal

Provides a one-millisecond shortest task class

PRODUCT PRECAUTIONS

- 1 Verify the full X20SL8000 marking and its assigned B&R X20 safety control position before work.
- 2 Place the connected machine or process in the approved maintenance state.
- 3 Isolate the applicable supply and powerlink safety data and safelogic program execution field energy before disconnecting conductors.
- 4 Record connector, conductor, address and software identities before removal.
- 5 Use ESD controls and protect keyed interfaces, exposed contacts and electronic assemblies.
- 6 Confirm the installed X20 SafeLOGIC bus base and POWERLINK safety nodes against the approved project.
- 7 Restore power in a controlled sequence and review device, network and host diagnostics.
- 8 Prove the intended machine safety controller function and retain the final test result.

ENGINEER FAQ

Q1 Does X20SL8000 match X20 SafeLOGIC bus base in a Machine safety controller installation?

Verify the complete X20SL8000 marking, the documented B&R X20 safety control position and the installed X20 SafeLOGIC bus base before fitting the assembly.

Q3 Which B&R X20 safety control records should be captured before removing X20SL8000?

Record the as-found wiring, installed position, active configuration and diagnostic state associated with X20SL8000 before disconnection.

Q5 Which POWERLINK safety nodes condition should be checked when X20SL8000 reports an abnormal state?

Check the POWERLINK safety nodes supply, seating and connection first, then compare channel diagnostics with the recorded X20SL8000 baseline.

Q7 What maintenance evidence is required after X20SL8000 is used for Safety motion coordination?

Retain the nameplate record, corrective action, final diagnostics and a controlled safety motion coordination functional-test result for X20SL8000.

Q2 How should X20SL8000 be wired when it must executes sil 3 safety applications?

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for X20SL8000; then continuity-test the affected path.

Q4 What controlled test confirms that X20SL8000 can coordinates up to twenty safety nodes?

Apply the approved field or simulated stimulus, observe the B&R X20 safety control indication and confirm the intended response without bypassing the normal interlocks.

Q6 Can X20SL8000 be moved directly into Networked emergency-stop logic without validating SafeDESIGNER project and validation record?

No. Confirm the SafeDESIGNER project and validation record, revision, connection scheme and B&R X20 safety control configuration before transferring X20SL8000 to that duty.

Q8 How should X20SL8000 be returned to service in SafeLOGIC controller renewal?

Restore power under control, verify communicates through 100 mbit/s powerlink, exercise the intended signal path and release X20SL8000 only after the B&R X20 safety control remains in its approved operating state.

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