

X20SC0842

X20 safe digital mixed module

Safe digital inputs and 24 V DC safety outputs

PRODUCT SNAPSHOT

BRAND

B&R

FAMILY

B&R X20 safety I/O

PART

X20SC0842

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PRODUCT OVERVIEW

Safe digital inputs and 24 V DC safety outputs

1

Acquires eight safe Type A inputs

2

Provides four 3 A safe Type A outputs

3

Provides two safe low-current Type B2 outputs

4

Supports OSSD test-pulse diagnostics

SYSTEM COMPONENTS

X20 safety bus base

24 V DC safety field circuits

SafeLOGIC project

approved safety sensors and final elements

TECHNICAL NOTE

Confirm SafeDESIGNER channel mapping, test-pulse assignment, output load and proof-test sequence before enabling the safety application.

TECHNICAL DATA

PARAMETER	VALUE
Safe inputs	8 Type A
Pulse outputs	4; 24 V DC
Safe outputs	4 Type A; 24 V DC; 3 A

PARAMETER	VALUE
Safe low-current outputs	2 Type B2; 24 V DC; 50 mA
OSSD test-pulse duration	<500 us
Protection	SIL 3; Cat. 4 / PL e

ENGINEERING NOTE

Confirm SafeDESIGNER channel mapping, test-pulse assignment, output load and proof-test sequence before enabling the safety application.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
330851-02-000-080-10-00-00	Related industrial automation product	View 330851-02-000-080-10-00-00 page
330851-01-000-020-10-00-00	Related industrial automation product	View 330851-01-000-020-10-00-00 page
330850-91-05	Related industrial automation product	View 330850-91-05 page
330876-01-50-01-05	Related industrial automation product	View 330876-01-50-01-05 page
330876-03-10-00-00	Related industrial automation product	View 330876-03-10-00-00 page
32000-28-05-15-080-03-02	Related industrial automation product	View 32000-28-05-15-080-03-02 page
32000-28-05-08-080-03-02	Related industrial automation product	View 32000-28-05-08-080-03-02 page
31000-16-10-00-050-03-02	Related industrial automation product	View 31000-16-10-00-050-03-02 page

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Emergency-stop input and output control

Acquires eight safe Type A inputs

Guard-door safety monitoring

Provides four 3 A safe Type A outputs

Safety-valve command

Provides two safe low-current Type B2 outputs

Distributed safety I/O renewal

Supports OSSD test-pulse diagnostics

PRODUCT PRECAUTIONS

- 1 Verify the full X20SC0842 marking and its assigned B&R X20 safety I/O position before work.
- 2 Place the connected machine or process in the approved maintenance state.
- 3 Isolate the applicable supply and safe digital inputs and 24 v dc safety outputs 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 safety bus base and 24 V DC safety field circuits against the approved project.
- 7 Restore power in a controlled sequence and review device, network and host diagnostics.
- 8 Prove the intended emergency-stop input and output control function and retain the final test result.

ENGINEER FAQ

Q1 Does X20SC0842 match X20 safety bus base in a Emergency-stop input and output control installation?

Verify the complete X20SC0842 marking, the documented B&R X20 safety I/O position and the installed X20 safety bus base before fitting the assembly.

Q3 Which B&R X20 safety I/O records should be captured before removing X20SC0842?

Record the as-found wiring, installed position, active configuration and diagnostic state associated with X20SC0842 before disconnection.

Q5 Which 24 V DC safety field circuits condition should be checked when X20SC0842 reports an abnormal state?

Check the 24 V DC safety field circuits supply, seating and connection first, then compare channel diagnostics with the recorded X20SC0842 baseline.

Q7 What maintenance evidence is required after X20SC0842 is used for Safety-valve command?

Retain the nameplate record, corrective action, final diagnostics and a controlled safety-valve command functional-test result for X20SC0842.

Q2 How should X20SC0842 be wired when it must acquires eight safe type a inputs?

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for X20SC0842; then continuity-test the affected path.

Q4 What controlled test confirms that X20SC0842 can provides four 3 a safe type a outputs?

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

Q6 Can X20SC0842 be moved directly into Guard-door safety monitoring without validating approved safety sensors and final elements?

No. Confirm the approved safety sensors and final elements, revision, connection scheme and B&R X20 safety I/O configuration before transferring X20SC0842 to that duty.

Q8 How should X20SC0842 be returned to service in Distributed safety I/O renewal?

Restore power under control, verify provides two safe low-current type b2 outputs, exercise the intended signal path and release X20SC0842 only after the B&R X20 safety I/O remains in its approved operating state.

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