

B&R - X20 System

X20SC2432

Safe Digital Mixed I/O Module

Technical specifications

Safe digital inputs	2 type A, 24 VDC, sink
Diagnostic pulse outputs	2
Software input filter	Configurable from 0 to 500 ms
Hardware input filter	≤150 µs
Safe relay outputs	2, each with 1 normally open contact
Relay switching range	5 to 24 VDC; 5 to 48 VAC
Relay output current	5 mA to 6 A
Maximum inrush current	30 A for 20 ms
Relay switching delay	<50 ms on and off
External output protection	6 A gL/gG fuse or C characteristic 1.6 A circuit breaker
Functional safety	IEC 61508 SIL 3; IEC 62061 SIL 3; ISO 13849-1 Cat. 4 / PL e
Bus / internal I/O power	0.26 W / 1.15 W
Electrical isolation	Channels isolated from bus and from one another
Required terminal block	X20TB52, ordered separately
Required bus module	X20BM33 or X20BM36, ordered separately
Module pitch	25 mm +0.2 mm
Degree of protection	IP20
Operating temperature	0 to 60 °C horizontal; 0 to 50 °C vertical
Dimensions	2.5 × 9.9 × 7.5 cm (W × H × D)

Documented role

B&R X20SC2432 is a SafeIO mixed module with two safe digital inputs, two diagnostic pulse outputs, and two safe relay outputs for the X20 System.

Documented applications

- Emergency-stop and guard-switch evaluation with floating contactor control
- Two-channel safety sensor monitoring with diagnostic test pulses
- Safety shutoff of AC or DC actuator circuits through monitored relay contacts

Selection and installation checks

X20SC2432 is a safety module. Verify the complete safety function, floating relay-load circuit, external 6 A protection, diagnostic-pulse wiring, safety-keyed accessories, hardware revision and validated project before commissioning.