

B&R X20DO4529

Relay Output Module

B&R; X20DO4529 provides four individually isolated relay changeover outputs for 30 VDC or 115 VAC control circuits. It connects discrete field loads to an X20 station while keeping each output channel isolated from the other channels and the bus.

IDENTITY	VERIFIED VALUE
Manufacturer	B&R;
Complete model	B&R; X20DO4529
Product role	Relay Output Module
System family	X20 System
Country of origin	Austria

DOCUMENT SCOPE

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

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B&R X20DO4529

Technical Specifications

PARAMETER	VERIFIED VALUE
Output channels	4 relay changeover outputs
Nominal voltage	30 VDC / 115 VAC
Nominal output current	1 A at 30 VDC / 0.5 A at 115 VAC
Maximum switching voltage	110 VDC / 125 VAC
Switching delay	<=4 ms on; <=4 ms off
Electrical isolation	Channel-to-channel, channel-to-bus and channel-to-I/O supply
Bus power	0.8 W
B&R; ID code	0x20D9
Protection rating	IP20
Operating temperature	-25 to 60 C horizontal; -25 to 50 C vertical
Required terminal block	X20TB12
Required bus module	X20BM11 or X20BM15

Model-Specific Engineering Note

ENGINEERING BOUNDARY

Install B&R; X20DO4529 with an X20TB12 terminal block and X20BM11 or X20BM15 bus module. Select external suppression for AC or DC loads and prove every relay channel against the configured output state before release.

Pre-Installation Checks

NO.	REQUIRED CHECK
1	Confirm the complete X20DO4529 marking and the assigned four output circuits before work.
2	Isolate every external field voltage because the relay circuits can carry potentials independent of the X20 bus.
3	Use X20TB12 with X20BM11 or X20BM15 and verify terminal coding before insertion.
4	Keep each load within the documented voltage, current and switching-capacity limits.
5	Fit an RC network or VDR on AC inductive loads and an inverse diode, RC network or VDR on DC inductive loads.

System Role and Architecture

B&R; X20DO4529 provides four individually isolated relay changeover outputs for 30 VDC or 115 VAC control circuits. It connects discrete field loads to an X20 station while keeping each output channel isolated from the other channels and the bus.

FUNCTION 1

Switches four independent field circuits with changeover contacts

FUNCTION 2

Separates each relay channel from the remaining outputs and the X20 bus

FUNCTION 3

Reports module and output status through LEDs and software diagnostics

FUNCTION 4

Supports DC and mains-frequency AC control duties with external load suppression

Common Applications

APPLICATION	ENGINEERING CONTEXT
Isolated interposing relay duties	B&R; X20DO4529 separates four commanded loads where each circuit needs its own changeover contact.
Valve and contactor command	The module switches documented DC or AC control coils through externally protected relay contacts.
Mixed-potential panel outputs	Single-channel isolation permits independent field circuits within the approved voltage limits.
X20 machine-control stations	Status LEDs and software diagnostics support output commissioning and maintenance in an X20 node.

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	Confirm the complete X20DO4529 marking and the assigned four output circuits before work.
2	Isolate every external field voltage because the relay circuits can carry potentials independent of the X20 bus.
3	Use X20TB12 with X20BM11 or X20BM15 and verify terminal coding before insertion.
4	Keep each load within the documented voltage, current and switching-capacity limits.
5	Fit an RC network or VDR on AC inductive loads and an inverse diode, RC network or VDR on DC inductive loads.
6	Do not rely on internal contact suppression because X20DO4529 provides none.
7	Record contact state and field voltage on all four channels during controlled commissioning.
8	Prove safe de-energization and the expected changeover action before returning the machine to service.

Model-Specific FAQ - Part 1

QUESTION	ANSWER
How are the four B&R; X20DO4529 relay channels electrically separated?	B&R; specifies each channel as isolated from the other channels, the bus and the I/O power supply.
Which loads fit the B&R; X20DO4529 nominal contact ratings?	The documented nominal ratings are 1 A at 30 VDC and 0.5 A at 115 VAC, subject to the stated switching-capacity limits.
What external suppression is required when B&R; X20DO4529 switches an inductive load?	For AC loads use an RC combination or VDR; for DC loads use an inverse diode, RC combination or VDR.
Why must a B&R; X20DO4529 replacement retain the terminal and bus modules?	The official data sheet requires an X20TB12 terminal block and an X20BM11 or X20BM15 bus module for the installed slice.

Model-Specific FAQ - Part 2

QUESTION	ANSWER
How quickly should B&R; X20DO4529 contacts change state?	Both the 0-to-1 and 1-to-0 switching delays are specified at no more than 4 ms.
Which contact-life records matter for B&R; X20DO4529 maintenance?	B&R; lists at least 100,000 electrical operations and 50 million mechanical operations at 3 Hz; the actual load history remains important.
What diagnostics can confirm a commanded B&R; X20DO4529 output?	The module provides per-output LED indication plus operating-state and module-status reporting.
How should B&R; X20DO4529 be accepted after wiring changes?	Energize each documented field circuit under controlled conditions, compare the command with contact state and prove the intended safe state on de-energization.

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
GE 151X1233DB02SA02	View GE 151X1233DB02SA02 page
GE 151X1235BC01SA41	View GE 151X1235BC01SA41 page
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

Data sheet X20DO4529
B&R; version 3.20, 2024-10-01

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