

B&R X20DC4395

Encoder Counter Module

B&R; X20DC4395 is a multifunctional 24 V encoder and counter module that can combine SSI, ABR, AB or event-counter inputs. Four outputs also support pulse-width modulation for position, speed, event and timing functions in an X20 station.

BRAND	B&R;	ORIGIN	Austria
MODEL	B&R; X20DC4395	PRODUCT	Encoder Counter Module
FAMILY	X20 System	SOURCE	B&R; version 3.30, 2024-10-14

MANUFACTURER SOURCE RECORD

Datasheet X20DC4395
B&R; version 3.30, 2024-10-14

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B&R X20DC4395

Product Overview

SYSTEM FUNCTION

B&R; X20DC4395 is a multifunctional 24 V encoder and counter module that can combine SSI, ABR, AB or event-counter inputs. Four outputs also support pulse-width modulation for position, speed, event and timing functions in an X20 station.

FUNCTION 1

Mixes SSI, ABR, AB and event-counter functions in one module

FUNCTION 2

Evaluates up to four 24 V asymmetrical incremental encoders

FUNCTION 3

Provides four outputs for pulse-width modulation duties

FUNCTION 4

Supports timing and relative timestamp functions for event correlation

TECHNICAL NOTE

Install B&R; X20DC4395 with X20TB12 and X20BM11 or X20BM15, using shielded signal lines for every encoder connection. Record the selected SSI, ABR, AB, counter and PWM mix, then prove scaling, direction, timestamps and output duty under controlled motion.

Technical Data and Acceptance

PARAMETER	VERIFIED VALUE
Module supply	24 VDC -15% / +20%
SSI encoder capacity	2 absolute encoders
ABR encoder capacity	2 incremental encoders
AB encoder capacity	4 incremental encoders
Event counter capacity	8 counters
PWM outputs	4
Encoder input level	24 V asymmetrical
Incremental input frequency	100 kHz maximum
Counter size	16 or 32 bit
Encoder supply	Module internal, 600 mA maximum
B&R; ID code	0x1CC5
Bus power consumption	0.01 W

ENGINEERING BOUNDARY

Install B&R; X20DC4395 with X20TB12 and X20BM11 or X20BM15, using shielded signal lines for every encoder connection. Record the selected SSI, ABR, AB, counter and PWM mix, then prove scaling, direction, timestamps and output duty under controlled motion.

Acceptance Path

1 IDENTITY

B&R; X20DC4395 and the complete channel-mode map are recorded.

2 FEEDBACK

SSI, ABR, AB or counter values follow controlled reference motion.

3 TIMING

Counter width, time measurement and relative timestamps match configuration.

4 OUTPUTS

Each used PWM output produces the approved frequency and duty response.

Applications and Engineering FAQ

APPLICATION	ENGINEERING CONTEXT
Multi-axis encoder acquisition	B&R; X20DC4395 collects SSI or incremental position signals from the documented machine axes.
High-speed event counting	Eight counter functions capture discrete production or machine events with configured timing.
PWM actuator command	Four outputs generate documented pulse-width-modulated commands alongside encoder feedback.
Position and speed retrofit	Flexible SSI, ABR and AB modes consolidate several legacy feedback types in one X20 slice.

Model-Specific FAQ - Part 1

QUESTION	ANSWER
Which encoder types can B&R; X20DC4395 connect?	The module supports two SSI absolute encoders, two ABR encoders, four AB encoders or eight event counters, and the functions can be mixed.
What is the maximum incremental input frequency of B&R; X20DC4395?	B&R; specifies a maximum of 100 kHz for the 24 V asymmetrical incremental encoder inputs.
How many PWM outputs does B&R; X20DC4395 provide?	Four outputs are available for pulse-width modulation and can be combined with the selected input functions.
What encoder supply is available from B&R; X20DC4395?	The internal 24 V encoder supply supports up to 600 mA and is short-circuit and overload protected.

FAQ, Related Products and Source

QUESTION	ANSWER
Must B&R; X20DC4395 signal cables be shielded?	Yes. The official product data requires shielded lines for all signal connections.
Which counter widths are available on B&R; X20DC4395?	The module supports 16-bit or 32-bit counter operation according to the configured function.
How is B&R; X20DC4395 isolated?	The bus is isolated from encoder and output circuitry; encoder and output groups are not mutually isolated inside the field side.
How should B&R; X20DC4395 be accepted after replacement?	Exercise every configured encoder or counter mode, confirm direction and scaling, check timestamps, test PWM outputs and verify diagnostics under controlled motion.

Related Products on Apter Power

MODEL	APTER POWER PAGE
GE 8021-CE-LH	View GE 8021-CE-LH page
GE 8810-HI-TX-01	View GE 8810-HI-TX-01 page
GE 8811-IO-DC	View GE 8811-IO-DC page
GE 8851-LC-MT	View GE 8851-LC-MT page
GE DS200TCEAG1BSF	View GE DS200TCEAG1BSF page
GE IC600BF843	View GE IC600BF843 page
GE IC693ALG391	View GE IC693ALG391 page
GE IC693ALG391G	View GE IC693ALG391G page

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