

B&R - X20 System**X20AI8321**

Analog Current Input Module

Technical specifications

Analog inputs	8 differential current inputs
Input ranges	0 to 20 mA or 4 to 20 mA
Digital converter resolution	12-bit
Conversion time	1 ms for all inputs
Conversion procedure	SAR
Input load	Less than 300 Ω
Reverse-polarity protection	Yes
Permissible input signal	Maximum ± 50 mA
Input filter	Third-order low-pass, 1 kHz cutoff
Common-mode range	± 12 V
Overload digital value	Configurable
Electrical isolation	Channel isolated from bus; channels not isolated from one another
Internal I/O power	1.37 W at Rev. D0 or later; 1.24 W before Rev. D0
Required terminal block	X20TB1F, ordered separately

Documented role

B&R X20AI8321 is an eight-channel differential current input module for 0 to 20 mA or 4 to 20 mA signals with 12-bit conversion for the X20 System.

Documented applications

- Eight-channel 4 to 20 mA process-transmitter acquisition
- High-density 0 to 20 mA measurement in distributed X20 I/O
- Multi-sensor current-loop monitoring in machine and process-control stations

Selection and installation checks

X20AI8321 concentrates eight current loops and requires external transmitter power; verify 0 to 20 or 4 to 20 mA scaling, polarity, common-mode range, hardware revision for power data, X20TB1F, and saved channel mapping before replacement.