

B&R - X20 System

X20AT4222

Temperature Input Module

Technical specifications

Temperature inputs	4 resistance-measurement inputs
Supported sensors	Pt100 and Pt1000, configurable per channel
Temperature range	-200 to 850 °C
Temperature resolution	0.1 °C
Connection type	2- or 3-wire, configurable per module
Direct resistance measurement	Supported
Digital converter resolution	16-bit
Conversion procedure	Sigma-delta
Filter time	Configurable from 1 to 66.7 ms
Conversion time	1 channel: 20 ms with 50 Hz filter; 2 to 4 channels: 40 ms per channel with 50 Hz filter
Resistance measurement ranges	0.1 to 4500 Ω or 0.05 to 2250 Ω
Sensor standard	EN 60751
Open-circuit monitoring	Temperature value 0x7FFF; resistance value 0xFFFF
Electrical isolation	Channel isolated from bus; channels not isolated from one another

Documented role

B&R X20AT4222 is a four-channel Pt100 and Pt1000 resistance-temperature input module with configurable sensor type, wiring mode, and filter time for the X20 System.

Documented applications

- Pt100 temperature acquisition in X20 machine-control stations
- Pt1000 process-temperature measurement in distributed I/O systems
- Direct resistance measurement in standard fieldbus control applications

Selection and installation checks

X20AT4222 selects Pt100 or Pt1000 per channel but configures 2- or 3-wire mode for the module; verify sensor wiring, lead resistance, filter time, scaling, X20TB12, and X20BM11 or X20BM15 before replacement.