

B&R - X20 System**X20AI1744**

Strain Gauge Input Module

Technical specifications

Strain-gauge inputs	1 full-bridge input
Connection type	4- or 6-wire
Digital converter resolution	24-bit
Conversion procedure	Sigma-delta
Data output rate	0.1 to 7500 samples/s, configurable
Input filter	Third order, 5 kHz cutoff, 60 dB slope
Strain-gauge range	2 to 256 mV/V, configurable
Bridge supply	5.5 VDC, maximum 65 mA
Bridge supply protection	Short-circuit and overload proof
Sensor resistance range	85 to 5000 Ω
Input type	Differential full-bridge evaluation
Common-mode range	0 to 3 VDC
Nonlinearity	Less than 10 ppm
Line monitoring	Broken sensor line and bridge supply line diagnostics

Documented role

B&R X20AI1744 is a single-channel full-bridge strain-gauge input module with 24-bit conversion and a configurable 0.1 to 7500 samples-per-second data rate for the X20 System.

Documented applications

- Full-bridge load-cell measurement in weighing systems
- Strain and force acquisition in X20 machine-control stations
- High-resolution bridge-sensor measurement requiring synchronous or multiple sampling

Selection and installation checks

X20AI1744 is intended for one compensated full-bridge strain-gauge channel; verify the 85 to 5000 ohm bridge, 4- or 6-wire wiring, 5.5 V excitation, data rate, range, compensation, X20TB12, and saved calibration before replacement.