S800 I/O

Product Data Sheet

AI830A 3BSE040662R1

RTD analog input module

RTD INPUT CHANNELS	SENSOR WIRING	SENSOR CHARACTERISTICS	CONVERSION RESOLUTION
8	**Three-wire**	**Pt100, Cu10, Ni100, Ni120; resistance**	**14 bits; range-dependent detail in manual**

ABB AI830A 3BSE040662R1 is an eight-channel S800 I/O module for temperature measurement with three-wire resistance sensors. It accepts Pt100, Cu10, Ni100 and Ni120 characteristics as well as resistance inputs, with sensor linearization and temperature conversion performed inside the module.

01 TECHNICAL DATA

RTD input channels	8
Sensor wiring	Three-wire
Sensor characteristics	Pt100, Cu10, Ni100, Ni120; resistance
Conversion resolution	14 bits; range-dependent detail in manual
Maximum field-wire resistance	500 Ω
Update cycle	150 + 95 × active channels, ms
Common-mode rejection	Greater than 120 dB at 10 Ω load
Normal-mode rejection	Greater than 60 dB
Rated insulation voltage	50 V
Dielectric test voltage	500 V AC

ABB S800 I/O Modules and Termination Units 3BSE020924-600 A; model-specific specification sections.

02 ADDITIONAL PRODUCT DATA

Power dissipation	1.6 W
5 V Modulebus current	70 mA
24 V Modulebus current	50 mA
MTU keying code	AF
Operating temperature	0 to +55 °C

03 PRODUCT FUNCTION

Individual channel settings and a selectable 50 or 60 Hz mains-frequency filter support different measuring points within one module. Input supervision covers open circuits and short circuits, while the three-wire measuring arrangement compensates lead resistance within the limits defined by the sensor and field-cable specifications.

04 SYSTEM COMPATIBILITY

Select the 50 or 60 Hz mains-frequency filter to match the installation. The update interval is 150 ms plus 95 ms per active channel, so the number of enabled channels determines how quickly new temperature values become available.

05 REFERENCE

ABB S800 I/O Modules and Termination Units 3BSE020924-600 A; model-specific specification sections.

AMIKON PRODUCT SUPPORT

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