

Foxboro - I/A Series / EcoStruxure Foxboro DCS

FBM212

14-Channel Group-Isolated Thermocouple/mV Input Module

Verified product identity

FBM212 is the functional designation; RH914XL is the current module part number; RH916BV is the termination assembly containing the internal reference-junction RTD.

Verified specifications

Field input channels	14 differential thermocouple or millivolt channels
Reference-junction channel	Channel 15, internal to the termination assembly and not user-accessible
Supported thermocouples	B, E, J, K, N, R, S and T; ungrounded junctions only
Millivolt input range	-10.5 to +69.5 mV
Raw measurement span	71.419 mV represented by 65,535 counts
Millivolt accuracy	±0.03% of span (±27 µV) at 25°C
Reference RTD	Three-wire 100 Ω platinum RTD, IEC 751 Class B
Reference-junction conformity	±0.25°C
Reference-junction measurement accuracy	±0.50°C
Input impedance	10 MΩ
Common-mode voltage	±2.5 VDC or peak AC
Conversion / new readings	Configurable conversion; new readings every 500 ms
Isolation	Field channels group-isolated from ground and logic; not galvanically isolated from one another
Isolation test	600 VAC for one minute to ground

Selection summary

Foxboro FBM212 is a 14-channel group-isolated thermocouple and millivolt input module with an internal reference-junction channel for Foxboro DCS temperature measurement.

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Termination assembly	RH916BV
Power consumption	3 W maximum
Heat dissipation	3 W maximum
Module Fieldbus	Redundant 2 Mbps
Input power	24 VDC +5%, -10%
Operating temperature	-20 to +70°C
Storage temperature	-40 to +70°C
Relative humidity	5 to 95%, noncondensing
Operating altitude	-300 to +3,000 m
Storage altitude	-300 to +12,000 m
Vibration	0.75 g from 5 to 500 Hz
Contamination class	ISA-S71.04 Class G3
Dimensions (W × H × D)	4.5 × 10.2 × 10.4 cm
Weight	0.284 kg

Installation and commissioning

- Use RH916BV and preserve its internal reference-junction RTD, thermocouple alloy terminals and installed cable.
- Preserve the saved channel configuration, field wiring, grounding and diagnostics before removal.
- Commission every used channel with traceable signals and verify alarms and control behavior.

Official applications

- Ungrounded thermocouple temperature acquisition
- Low-level millivolt signal measurement
- Multichannel temperature measurement with termination-assembly cold-junction compensation

Evidence boundary

Dimensions and weight apply to the FBM212 electronic module. Termination assemblies, cables, redundant companion modules and packaging are excluded.

Source basis: current official Schneider Electric / Foxboro model-specific Product Specifications Sheet.