

Schneider Series Service Manual

140ARI03000C

1. Description

The Schneider Electric 140ARI03000C is a reliable RTD input module designed explicitly for the Modicon Quantum series. It supports eight channels and utilizes sigma delta technology for ADC conversion, providing an input resolution of 15 bits, making it suitable for accurate temperature measurement applications.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Type RTD input module
Product	Line Modicon Quantum
Part	Number 140ARI03000C
Channels	8
Input	Resolution 15 bits
ADC	Method Sigma delta
Common	Mode Rejection 120 dB
Differential	Mode Rejection 60 dB
Recalibration	Internal
Altitude	0 to 2000 m
Ambient	Temperature 0 to 60 °C
Storage	Temperature -40 to 85 °C
Protection	Class IP20

3. Product Information

The Schneider Electric 140ARI03000C is a reliable RTD input module designed explicitly for the Modicon Quantum series. It supports eight channels and utilizes sigma delta technology for ADC conversion, providing an input resolution of 15 bits, making it suitable for accurate temperature measurement applications.

Technical specifications for 140ARI03000C

Manufacturer Schneider Electric

Product Type RTD input module

Product Line Modicon Quantum

Part Number 140ARI03000C

Channels 8

Input Resolution 15 bits

ADC Method Sigma delta

Common Mode Rejection 120 dB

Differential Mode Rejection 60 dB

Recalibration Internal

Altitude 0 to 2000 m

Ambient Temperature 0 to 60 °C

Storage Temperature -40 to 85 °C

Protection Class IP20

Description

The 140ARI03000C RTD input module by Schneider Electric is engineered for integration with the Modicon Quantum series. This component offers eight dedicated channels for temperature input, leveraging advanced sigma delta technology for conversion, which results in a precise input resolution of 15 bits.

An impressive common mode rejection ratio of 120 dB enhances its performance, minimizing the effects of noise on the operational signals. Additionally, it features a differential mode rejection of 60 dB, which further ensures the accuracy of readings in various applications. Internal recalibration allows for easy maintenance of measurement precision.

The operational altitude range extends from sea level to 2000 meters, making this module applicable in varied geographic conditions. When it comes to temperature management, the 140ARI03000C is viable in environments from 0 to 60 °C and capable of withstanding severe storage conditions down to -40 °C, and up to 85 °C, ensuring functionality in diverse climates.

Designed with an IP20 protection class, this module is intended for indoor use, safeguarding against solid objects larger than 12.5 mm. Weighing 209 grams, the compact design supports efficient installation into existing systems, making it a practical choice for users seeking reliable RTD inputs in industrial applications.