

Schneider Series Service Manual

140KRP10000

1. Description

The 140KRP10000 by Schneider Electric is a versatile general-purpose I/O module designed for use in Modicon Quantum systems. It operates at a nominal voltage of 24 V DC and provides effective input signal processing and management, making it suitable for various industrial applications.

2. Specifications

Specification	Value
Manufacturer	Schneider Electric
Product	Type General-purpose I/O module
Product	Line Modicon Quantum
Part	Number 140KRP10000
Operating	Voltage 24 V DC nominal
Input	Voltage Threshold 11-30 V DC (ON), 3-5 V DC (OFF)
Maximum	Load Current 0.65 A per channel, 10 A total
Isolation	Voltage 500 V transient protection
Update/Scan	Time ~15 ms
Bus	Current Requirement 350-550 mA
Operating	Temperature Range -10°C to +60°C
Mounting	Method Rack-mount, DIN rail option
IP	Protection Rating IP20
Integrated	Signal Conditioning Filtering, surge suppression
System	Compatibility Quantum series, Modbus/Profibus

3. Product Information

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Technical specifications for 140KRP10000

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Product Type General-purpose I/O module

Product Line Modicon Quantum

Part Number 140KRP10000

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Mounting Method Rack-mount, DIN rail option

IP Protection Rating IP20

Integrated Signal Conditioning Filtering, surge suppression

System Compatibility Quantum series, Modbus/Profibus

Description

The Schneider Electric Modicon Quantum 140KRP10000 functions as a general-purpose I/O module that serves a variety of applications in industrial settings. Designed to operate at a nominal voltage of 24 V DC, it possesses input thresholds ranging from 11 V to 30 V DC for ON states and 3 V to 5 V DC for OFF states. This module supports a maximum load of 0.65 A per individual channel, with a cumulative load limit of 10 A across all channels, allowing for efficient current management.

The 140KRP10000 features transient protection, with an isolation voltage rated at 500 V, ensuring reliable operation amid voltage spikes. It operates with an update or scan time of approximately 15 milliseconds, contributing to fast signal processing capabilities. The module's bus current requirement falls between 350 mA and 550 mA, which provides essential power supply regulation. Furthermore, it operates effectively within a temperature range of -10°C to +60°C, allowing it to withstand various environmental conditions.

For mounting versatility, this module can either be rack-mounted or installed on a DIN rail, which enhances installation flexibility in different setups. Rated with an IP20 protection class, it provides adequate safeguard against foreign objects greater than 12.5 mm in diameter. The 140KRP10000 features integrated signal conditioning, incorporating filtering and surge suppression, which enhances overall system reliability. This module is compatible with the Quantum series and various communication protocols, including Modbus and Profibus.