

# QNet4100

## Alarm and event management system



## Proven, reliable and easy to use

- Flexible configurations to meet customer applications
- Real-time display of alarms
- Remote monitoring and configuration
- Reliability by design

### Product Summary

**Description** An intelligent system for alarm management and discrete event monitoring

**Application** Enables alarm monitoring and post events analysis for a wide range of applications in transmission, generation and industrial processes. Concise display of current state in real time. Enables easy identification and analysis resulting in quick problem resolution



**QUALITROL**<sup>®</sup>  
Defining Reliability

# QNet4100 Alarm and event management system

## Proven, reliable and easy to use

- Designed to set the new industry standards for reliability and simplicity

## Flexible configurations to meet customer applications

- The QNet4100 is based on a design which is modular and scalable to support up to 4096 points. The chassis can be grouped together at single or multiple locations. Units are connected via duplex fiber optic interconnecting cables. The inputs can be grouped, filtered and routed to a variety of output annunciators per customers application

## Real-time display of alarms

- The QNet4100 system ensures real-time monitoring of events with time accuracy of 1 millisecond. Early detection and accurate diagnostics is crucial to reduce outages and their associated costs. The real time display of alarms accurately represents the current plant conditions

## Remote monitoring and configuration

- Secure web interface provides reports on current system state and archived historical alarm and event information. Users with assigned access control can download current system configuration, configure initial setup or make necessary changes

## Reliability by design

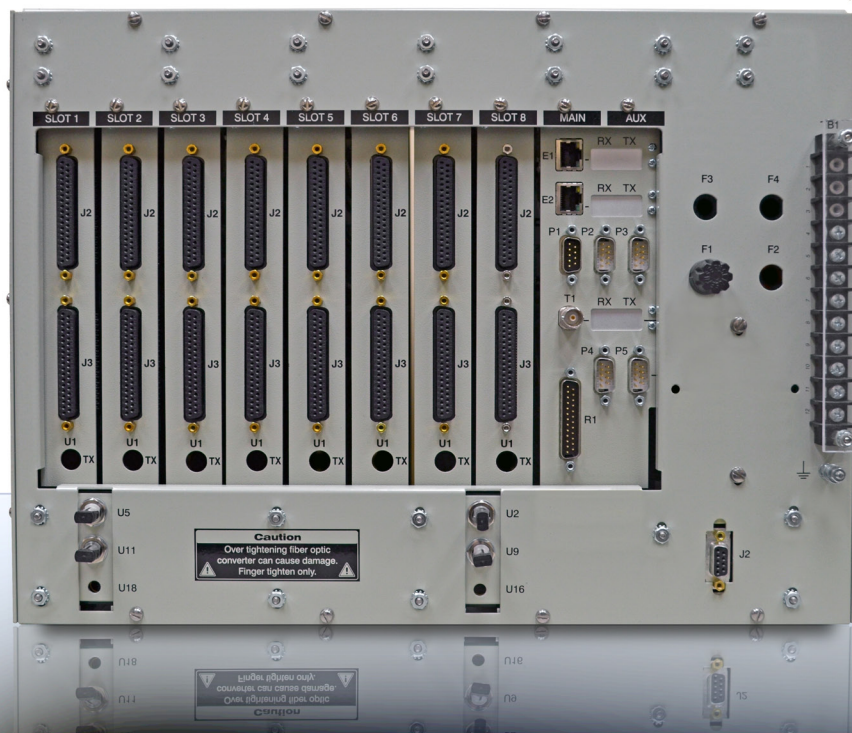
- The QNet4100 system is designed to meet stringent industry standards of reliability meeting the requirements of most critical applications. Full compliance to IEC 60255-1 to ensure that no records are missing. The system performs functional and self tests to each input point and provides input to output isolation with optional input to input isolation. For ultimate reliability, QNet4100 supports single, redundant and fully redundant annunciator logic
- Extensive self diagnostics capability with built in monitoring for 230 event conditions

## Multiple time synchronization and high stability clock

- Multiple external time synchronization methods are supported by the system including latest industry specifications. The hardware supports accurate time stamping of events with 1 ms resolution

## Multiple and simultaneous communication methods

- Through its multiple communication methods, QNet4100 provides timely information where it is needed. Five serial ports and two Ethernet ports are available enabling serial and NTP communications. The communications are supported to annunciators, *AdvSER™* display, web interface, printers and modems.
- Built in support for DNP3 protocol





## TECHNICAL SPECIFICATIONS

<b>Power supply</b>	Input power	90 - 250 VAC, 50/60Hz. 90 - 350 VDC. 48 VDC. 24 VDC
	Field contact	250 VDC. 125 VDC. 48 VDC. 24 VDC
<b>Performance</b>	Processor	400MHz, 64 bit
	Point capability	64 - 4096
	Historical memory capability	100,000 events
	Battery backup	(Clock and event history). Manganese lithium rechargeable
	Backup time	90 days
	Self diagnostics alarms	230
	Alarm grouping	Boolean engine Alarm filtering
<b>Ports</b>	Maintenance (110 - 230 kbaud)	RS232. USB
	Serial (110 - 230 kbaud)	5 programmable. 1 over fiber ST, SMA, and SC (optional)
	IRIG-B	Modulated. Unmodulated Fiber optic (optional)
	Ethernet	2 x 10/100BASE-T
<b>Indicators</b>	LEDs	8 programmable relays. 1 watchdog, 1 fault, 1 power
<b>Clock</b>	Standard stability	20 ppm
	High stability	0.1ppm (optional)
<b>Time synchronization</b>	External	Primary backup
	Pulse	1 PPH. 1 PPM. 1 PPS (via T1 port)
	IRIG-B	IRIG 200-04 (2004)
	NMEA 0183	Via RS-232 port
	NTP	Via Ethernet port
	System time	UTC with localization for displays
<b>Devices</b>	Operator console	English
	Printer	Serial
	Modems	Serial
	Alarm Annunciator displays	Serial
<b>Protocols</b>	Communications	BPA
		DNP3
		DNP3 Slave (serial)
		DNP3 Slave (Ethernet)
<b>Mechanical</b>	Enclosure	8U, 19" rack mountable chassis
	Dimensions (H x W x D)	352.4 mm x 482.6 mm x 406.4 mm (13.87" x 19" x 16")*
	Weight	Approx. 13.6 kg (30 lbs)

\*Other mechanical options available

**QNet4100... ultimate reliability by design**



# QNet4100



**About QUALITROL®**

Established in 1945, with continual improvement at the core of our business, QUALITROL® provides smart utility asset condition monitoring across the globe. We are the largest and most trusted global leader for partial discharge monitoring, asset protection equipment and information products across generation, transmission and distribution. At QUALITROL® we are redefining condition monitoring technology for Electric utilities assets.

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