

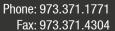


MNPR® Communicating Relay with Ethernet

- Direct replacement for any WH or GE relay
- Local scrolling display
 Ethernet connection
 for secure remote
 communications
- Optical programming port for local setup and monitoring
- Auxiliary I/O Up to
 Analog Inputs, 4 Digital
 Inputs, 3 Digital Outputs
- Remote firmware upgradable while in service
- Interactive webpage for conguration and reporting
- DNP3 via RS485 serial or Ethernet, including SAv5









MNPR® Communicating Relay with Ethernet

Ethernet MNPR® Specifications

Physical

- Operating Temperature -40°C to +85°C
- Submergibility IP68 25 feet for 7 days

Communications Ports

Ethernet Port

Speed: 10/100 Mbps Standard: IEEE 802.3 Connector: M12 D-coded – IEC 61067-2-101 Amendment 1

Serial Port

Speed: 1200 to 115200 bps
Protocol: DNP3 / DNP3 SAv5
Connector: Conxall Circular

Optical Programming Port

Speed: 9600 bps Protocol: ETI Protocol

(for use with FieldPro/Commander) / ASCII (Terminal for initial IP setup)

Networking/Security

Web Management Protocol: HTTPS / TLS

Authentication: Username and Password

- Local Database
- RADIUS
- LDAP

Encryption Key Length: 128 or 256 bit

Virtual Private Networks

Protocol: IPsec

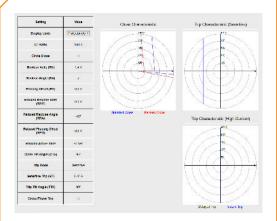
Key Exchange: IKEv1 / IKEv2

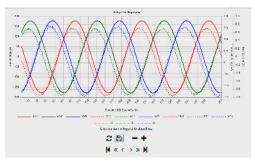
Authentication: Shared Secret / X.509 certificates

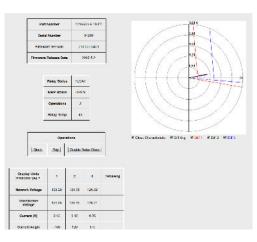
Encryption Algorithms: AES

Encryption Key Length: 128 or 256 bit

Live Data & Settings













MNPR® Communicating Relay with Ethernet

Ethernet MNPR® Specifications

Networking/Security (Continued)

- User Accounts
 - Multiple User Roles
 - Administrator Full Access
 - View Relay Data View protective relay data and settings

Allow Relay Control

 Operate (trip/close) relay and modify protective relay settings

View Network/Security Settings + Logs

- View system settings (networking and security) and logs
- Logging

Local log storage

Forwarding to remote Syslog server

Supported Protocols

Address Resolution Protocol (ARP)

Dynamic Host Configuration Protocol Client (DHCP)

Hypertext Transfer Protocol Secure (HTTPS)

Transport Layer Security (TLS)

Remote Authentication Dial-In User Service (RADIUS)

Lightweight Directory Access Protocol (LDAP)

Network Time Protocol Client (NTP)

Syslog

Secure Shell (SSH)

Encapsulating Security Payload (ESP)

Internet Key Exchange (IKEv1 / IKEv2)

Internet Secure Association and

Key Management Protocol (ISAKMP)

Transmission Control Protocol (TCP)

 Supported Congestion Control Algorithms: Cubic, Reno, Westwood, Highspeed, Hybla, HTCP, Vegas, Veno, Scalable, LP, Illinois

User Datagram Protocol (UDP)



