

KY-MSG1002 / DYMEC G Series

10+2 Port, Managed, Temperature Hardened, Industrial Ethernet Switch with 1GbE Uplinks, ERPSv2 & NSA Endpoint Certification



- **10 x Gigabit Ethernet Ports**
- **2 x 1 Gigabit Ethernet SFP Slots with ERPS**
- **Protection – IP30 Fanless – Convection Cooled**
- **NSA Network Endpoint Guideline Certified for Console Port Shutdown and Chassis Full Security (Patent Pending)**
- Built for harsh environments and wide temperature range applications / Edge Computing
- RSTP, MSTP, ERPS, LACP for Network Redundancy
- QoS CoS/DSCP to increase determinism
- ERPSv2 – Redundant Ring Protection System
- MAC Table
- Supports IGMP Snooping v1/v2/v3, up to 1024 groups
- DHCP Relay Option 82 IP address assignment
- SNMP v1/v2c/v3 for network management
- Supports Storm Protection / Broadcast Control
- USB storage for configuration-free replacement
- 5 Year Warranty
- Supports industrial automation protocols Ethernet/IP & Modbus TCP
- Secure File Transfer Protocol (SFTP) & Trivial File Transfer Protocol (TFTP)



Specifications

Technology	
	IEEE 802.3 10BaseT IEEE 802.3u 100BaseTX IEEE 802.3ab 1000BaseT
	IEEE 802.3x Flow Control IEEE 802.3ad/802.1AX LACP IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid STP IEEE 802.1s Multiple STP ITU-T G.8032 / Y.1344 ERPS IEEE 802.1Q VLAN Tagging IEEE 802.1ad Stacked VLANs IEEE 802.1p Class of Service IEEE 802.1X Network Authentication IEEE 802.1AB LLDP
Standards	
Processing Type	Store and Forward

Switch Properties	
Priority Queues	8 Queues
Jumbo Frame	16000bytes
MAC Table Size	16K
VLAN Table Size	4094
IGMP Group	1024
Packet Buffer	12Mbits
Software Features	
Network Redundancy	RSTP, MSTP, G.8032 ERPSv2, Port Trunking with LACP
Security	802.1X, RADIUS, TACACS+, SSL, SSH, ACL, ACL Security Package
Management	IPv4, IPv6, Web, Telnet, Serial Console, CLI, SNMP v1/v2c/v3, uPnP

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Diagnostics	RMON, SNMP Inform/Trap, Syslog, SMTP, Port Mirroring, LLDP
Configuration	DHCP Server/Client, Relay Option 82, TFTP, USB
Filter	802.1Q VLAN, Q-in-Q, IGMP Snooping v1/v2/v3, IGMP Querier, Independent Vlan Learning
Time Sync.	NTP
QoS	CoS, DSCP, WRR/SPQ Queuing, Storm Protection
Industrial Profiles	Ethernet/IP, Modbus TCP
Interface	
RJ45 Port	10 x 10/100/1000T(x), auto negotiation speed duplex mode, auto MDI/MDI-X
Fiber Port	2 x 1 Gigabit Ethernet SFP Slots
LED Indicators	Per unit: PWR1, PWR2, Fault, Ring Master, Ring State Ports: Link/Active with highest speed(Green), low speed(Amber)
Alarm Contact	1 x relay output with current carrying capacity of 1A @ 24 VDC
Digital Inputs	1x isolated input from the electronics. +13 to +30 Volts for state "1" -30 to +3 Volts for state "0" Maximum input current: 8mA
Button	Multiple functions reset button
Serial Console	1 x RS232 in RJ45 connector with console cable, 115.2Kbps, 8N1
Storage	1 x USB 2.0 storage for firmware update, configuration backup, restore, boot up and syslog
Power Requirements	
Operation Voltage	12-48 Volts DC, redundant dual inputs
Connection	1 x removable 4-contact terminal block
Power Consumption	0.66A@ 24 Volts DC
Protection	Overload Current Protected, Reverse Polarity Protected

Mechanical Construction

Enclosure	Aluminum – Military Grade
Protection Class	IP30
Dimensions	72 x 145 x 118 mm (W x H x D)
Weight	0.87 kg
Mounting	DIN-Rail Mounting, Optional Wall Mounting Kits

Environmental Limits

Operating Temperature	Extended: -40°C ~ 80°C (-40°F ~ 176°F)
Storage Temperature	-40°C ~ 85°C (40°F ~ 185°F)
Ambient Relative Humidity	5 to 95%, (Non-Condensing)

Regulatory Approvals

Altitude - GB4943.1-20111	0 ~ 5000 Meters Certified
EMI	FCC Part 15 Subpart B Class A CE EN 55032 Class A
EMS	IEC61000-4-2 (ESD Level 4) IEC61000-4-3 (RS Level 3) IEC61000-4-4 (EFT Level 4) IEC61000-4-5 (Surge Level 4) IEC61000-4-6 (CS Level 3) IEC61000-4-8 (Magnetic Field Level 4)
Free Fall	IEC60068-2-32
Shock	IEC60068-2-27
Vibration	IEC60068-2-6
Green	RoHS Compliant
Certifications	UL 60950-1/62368 61000-6-2 / FCC / ITUT / IEEE 61000-6-4 / NEMA TS-2
MTBF MIL-HDBK-217 IEC 62380	>150,000 hours
Warranty	<u>5 Years / Limited Lifetime</u>
TAA Compliant	<u>Certified TAA Compliant</u>

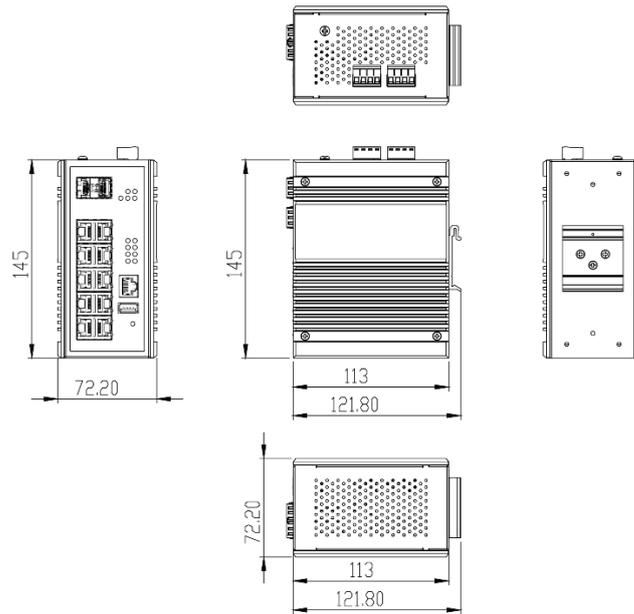
Note from DYMEC Development.

In a continuing effort of improvement and updated technology, product specifications are subject to change without notice.

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Dimensions (unit = mm)

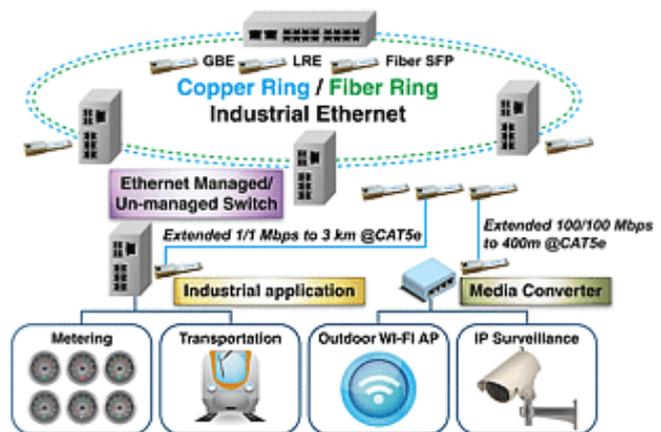
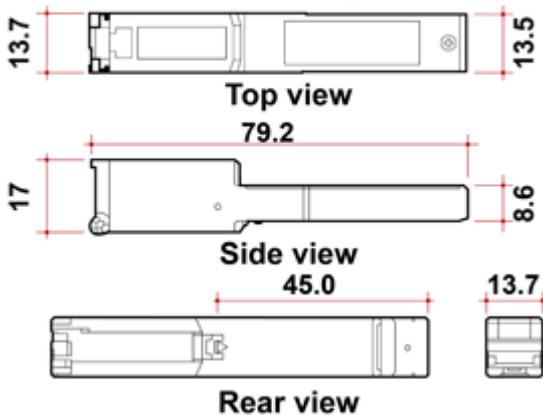


DYMEC Supports: 2 & 4 Wire LONG RANGE ETHERNET / VDSL2 SFP Modem

With long reach coverage, high noise immunity, and compact board size, **DYMEC KY-Pro-180-CRD Ruggedized SFP** modem is an ideal upgrade for your Enterprise or Industry applications. Used in Pairs.

VDSL2 – Long Range Ethernet Application (KY-Pro-180-CRD)

MECHANICAL DIMENSIONS (Units in mm)



DYMEC KY-SFP-T

Copper SFP Transceiver – Used to Add Additional RJ-45 Copper Ports to your DYMEC Switch
Easy to Install & Configure – GUI Selectable

Ordering Information

KY-MSG1002	10 + 2 Port Industrial Managed Ethernet Switch with 1 GbE Uplinks - 10 x 10/100/1000T(x) + 2 x 1 Gigabit Ethernet SFP Slots - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F)
DYMEC G Series	NSA Guideline Certified for Console Port Shutdown and Chassis Full Security

Optional Accessories

KY-PS24-40W	Industrial Sealed Block Supply with 24 Volts DC Output, provides a maximum of 40 Watts Power. Teflon Shielding includes AC Cord, Temperature Hardened, Military Grade
KY-PS24-45W/2A/DR	Industrial DIN-Rail Power Supply with 24 Volts DC Output, provides a maximum of 45 Watts Power. Temperature Hardened, Military Grade
KY-PS48-120W/2.5A/DR	Industrial DIN-Rail Power Supply with 48 Volts DC Output, provides a maximum of 120 Watts Power. Temperature Hardened, Military Grade



DYMEC – Temperature Hardened, American Made, Ruggedized, NSA Certified Endpoint, Industrial Ethernet Switches / Routers for SCADA, ITS, Transportation, Automation, Power Utilities, Edge Computing, AI and Industrial Control Systems. Made in USA. Cyber-Secure, TAA Compliant. Uses SFP's / BiDi SFP's / Mini Gbic & VDSL2 Industrial SFP for Long Range Ethernet.



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