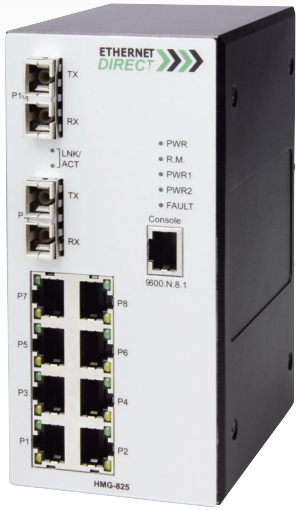


**HMG-825  
HMG-825E**

**Industrial Gigabit Managed Ethernet Switch**



**Features**

**High Performance Network Switching Technology**

- ✓ Complies with IEEE 802.3, IEEE 802.3u, IEEE 802.3X, IEEE 802.1p, IEEE 802.1q, IEEE 802.1d, IEEE 802.1w, IEEE 802.1x, IEEE 802.3ad, IEEE 802.3z
- ✓ Provides 8 x 10/100/1000T Ethernet ports with RJ-45 connector
- ✓ Provides 2 x 1000 Mbps SX (multi-mode) SC type fiber port
- ✓ RJ-45 Port support auto MDI/MDI-X crossover
- ✓ Provides broadcast storm protection
- ✓ Redundant X-Ring recovery time < 50 ms on full load
- ✓ Supports Dual Homing – RSTP over X-ring
- ✓ Supports Ring coupling
- ✓ SNMP for network management
- ✓ IGMP snooping for filtering multicast traffic
- ✓ QoS / ToS to increase network packet determinism
- ✓ VLAN for easy network planning
- ✓ Event notification by e-mail, SNMP trap, Syslog & Relay output
- ✓ Online Port Mirroring for online debugging
- ✓ IP security to define access levels for protection
- ✓ Configurable by WEB browser
- ✓ IntraVUE Network Management software compatible

**Robust Industrial Design**

- ✓ Robust Aluminum case complying to IP-31 housing standard
- ✓ Supports operating temperature -10 to 70°C & Extended temperature -40 to 80°C
- ✓ DIN-Rail, Panel mount or desktop installation
- ✓ High level of immunity to electromagnetic interference & power supply surges typically found in industrial plant environments or external curb side enclosures

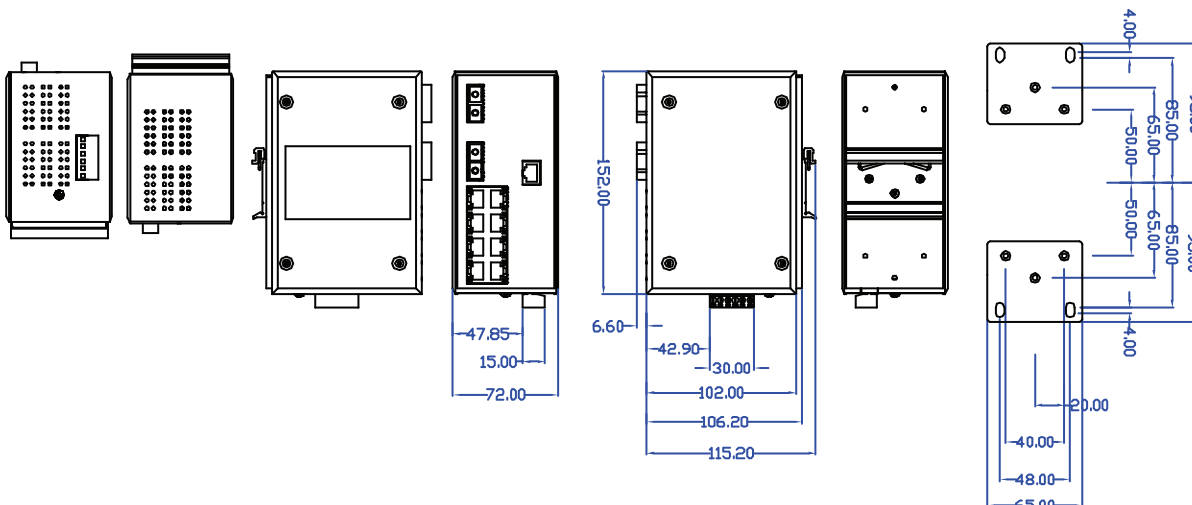
**Reliable Power Design**

- ✓ Wide range redundant power design
- ✓ Equipped with redundant power inputs
- ✓ Supports 24 to 48VDC redundant power with polarity reverse protection
- ✓ Terminal block present for master and slave power

**Overview**

The Husky series HMG-825 is a highly reliable and fault-tolerant Industrial 10-port Gigabit Managed Ethernet Switch. It supports state of the art design with eight 10/100 Mbps Ethernet ports and two gigabit SX fiber ports. With the gigabit port, HMG-825 transmits data at high speed for long distances up to 0.5 km with an SC connector. With its high performance switching device, HMG-825 provides redundant self-recovery mechanism in less than 50ms on full load which allows you to establish a redundant Ethernet network to build a back-up ring topology. Dual homing and Ring coupling are supported to add reliability by allowing a device to be connected to be network by way of two independent connection points. HMG-825 offers powerful network management functions including SNMP, SMTP, Sntp, Quality of Service, Class of Service, IGMP, Snooping, LACP, DHCP, VLAN, RMON, Port Trunk, Port Mirror, User Authentication (Radius) and IP Security. The HMG-825 is equipped with a terminal block to provide dual power inputs with reverse polarity protection. Its IP-31 housing protection, wide operating temperature of -10 to 70°C and DIN-Rail mounting is suitable for an industrial environment. The E version extends the temperature rating to -40 to 80°C . The HMG-825 is a plug-and-play solution for your Industrial Ethernet applications.

**Dimensions**



## Hardware Specifications

### Interface

<b>RJ-45 Ports</b>	8 10/100Base-TX auto-negotiation speed, Full/Half duplex, auto MDI/MDI-X
<b>Fiber ports</b>	2 1000Base-SX multi-mode port (SC connector)
<b>LEDs</b>	Per unit: Power (Green), Power 1 (Green), Power 2 (Green), Fault (Yellow), Master (Green) 8 port 10/100: Link/Activity (Green), Full duplex/Collision (Yellow) Gigabit port: Link/Activity
<b>Alarm</b>	Relay output for port break and power failure Current carry ability (1A at DC 24V)
<b>Power Input</b>	VDC 24-48V Redundant power with polarity reverse protect function and removable terminal block
<b>Power Protection</b>	ESD (Ethernet) : Present Surge : 1500VDC Power Reverse Polarity: Present
<b>Power Consumption</b>	3.5 watts
<b>Dimensions</b>	IP-31 standard, 72 mm (W) x 152 mm (H) x 105 mm (D)
<b>Installation</b>	DIN-Rail, panel mounting or desktop

### Environmental

<b>Operating Temperature</b>	Regular: -10 to 70°C Extended: -40 to 80°C
<b>Storage Temperature</b>	-40 to 85°C (-40 to 185°F)
<b>Operating Humidity</b>	5%~90% RH (Non-condensing)

## Technology Specifications

<b>Standard</b>	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX/100BASE-FX IEEE802.3x Flow Control and Back Pressure IEEE802.3ad Port trunk with LACP IEEE802.1d Spanning Tree Protocol IEEE802.1w Rapid Spanning tree IEEE802.1p Class of Service IEEE802.1Q VLAN Tagging IEEE 802.1x User Authentication (Radius)
<b>RFC Standard</b>	RFC2030 SNMP, RFC 2821 SMTP, RFC 1215 Trap, RFC2233 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 2665 Ethernet like MIB, RFC 2819 RMON MIB, Private MIB

<b>Network Media</b>	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5/5e cable EIA/TIA-568 100-ohm (100m)
<b>Packet Filter</b>	Broadcast packet filtering -Number of MAC (50 Tables) -IP Address Security (10 Sections)
<b>Protocol Technology</b>	CSMA/CD
<b>Switching Architecture</b>	Store and Forward

## Performance

<b>Data Transfer Rate</b>	14,880 pps for Ethernet port 148,800 pps for Fast Ethernet port
<b>MAC Address</b>	8K
<b>System Log</b>	1 Mbytes
<b>Back-plane</b>	5.6 Gbps
<b>Local Configuration</b>	RJ-45 for RS-232 series
<b>Port Statistics</b>	Supported
<b>Flow Control</b>	Full-duplex and Back Pressure for Half-duplex
<b>Packet Filter</b>	Broadcast/Multi-cast/Unknown Broadcast storm packet filter
<b>Transfer Packet Size</b>	3.87 Mpps at 64 bytes

## Regulatory Approvals

<b>EMI</b>	FCC Class A
<b>EMS</b>	EN6100-4-2 EN6100-4-3 EN6100-4-4 EN6100-4-5 EN6100-4-6 EN6100-4-8 EN6100-4-11
<b>Safety</b>	UL, cUL, CE/EN60950
<b>Shock</b>	IEC60068-2-27
<b>Vibration</b>	IEC60068-2-6
<b>Free Fall</b>	IEC60068-2-32
<b>Class 1 DIV 2</b>	Pending *

<b>DNV</b>	Pending *
<b>Environmental</b>	WEEE, RoHS
<b>MTBF</b>	325,000 hrs based on Mil-Hdbk-217F, GB
<b>Warranty</b>	5 years

## Management Specifications

<b>Redundancy</b>	<ul style="list-style-type: none"> <li>Supports X-ring redundant back-up path</li> <li>Supports Dual Homing</li> <li>Supports Ring Coupling</li> <li>Recovery time less than 50 ms</li> <li>Web interface management can activate X-ring protocol</li> </ul>
<b>Management Protocols</b>	SNMP V1/V2c, RMON 1 (Statistics, History, Alarm, Events) SMTP, SNTP, IGMP V1 & Query mode, DHCP/Client, TFTP
<b>MIB</b>	MIB-II, Bridge MIB, Ethernet like MIB, VLAN MIB, Private MIB
<b>Configuration</b>	<ul style="list-style-type: none"> <li>Web interface management</li> <li>Default button is available to restore default settings</li> </ul>
<b>VLAN</b>	<ul style="list-style-type: none"> <li>Support Port based VLAN/Tag VLAN(256 entries)</li> <li>VLAN ID(Up to 4K)</li> <li>GVRP(256 Groups)</li> <li>Static VLAN groups up to 256, the VLAN ID can be assigned from 1 to 4094</li> </ul>
<b>Quality of Service</b>	Hardware supports 4 queues per port
<b>Port Mirroring</b>	Online traffic monitoring on selected ports
<b>MAC IP Security</b>	Supports ingress and egress MAC address filter and static source MAC address lock, Dumping MAC address Table, Ingress/Egress MAC address security, per port support learning 50 MAC addresses
<b>IP Security</b>	Support 10 IP address accounts for system management security for Web, SNMP and Telnet management security to prevent intruder.
<b>IGMP Snooping</b>	v1 and v2, query mode, multicast group with 256 entries
<b>LACP Port Trunk</b>	3 Trunk groups/Maximum 4 trunk members
<b>Port Mirror</b>	Global system supports 3 mirroring types: "RX, TX and Both packet". Maximum of 8 entries
<b>Port Trunk</b>	802.3ad with LACP function. Up to 3 trunk groups and maximum group member up to 4 ports
<b>Class of Service</b>	Per port 4 queues
<b>E-mail Warning</b>	Pre-defined events
<b>SNMP Trap</b>	Cold start, link down, link up, authorization fail, X-ring topology Change, Power alarm trap, Trap station up to 3
<b>SMTP</b>	Support up to 6 e-mail accounts
<b>Firmware upgrade</b>	By TFTP

### Optical Specifications

Model	Fiber type (um)	Connector	Wavelength (um)	TX Power (min)	TX Power (Max)	Rx Power (Min)	Rx Power (Max)	Link Budget (dbm)	Distance (km)
HMG-825	Multi-mode (1000BaseSX) 62.5/125	SC	850nm	-9.5dBm	-4dBm	-18dBm	-4dBm	9dBm	0.5 km
HMG-825E	Multi-mode (1000BaseSX) 62.5/125	SC	850nm	-9.5dBm	-4dBm	-18dBm	-4dBm	9dBm	0.5 km

### Ordering Information

<b>HMG-825</b>	Industrial 10-port Gigabit Managed Ethernet Switch With 2 1000Base-SX SC fiber port
<b>HMG-825E</b>	Industrial 10-port Gigabit Managed Ethernet Switch With 2 1000Base-SX SC fiber port, Extended Temperature -40 to 80°C

\*Extended temperature products are produced to order

### Recommended Accessories

<b>DR-4524</b>	45W/2A DIN-Rail 24 VDC power supply
<b>DR-7524</b>	75W/3.2A DIN-Rail 24 VDC power supply
<b>DR-120-24</b>	120W/5A DIN-Rail 24 VDC power supply



**1800 817 807**  
sales@alloy.com.au  
www.alloy.com.au

Proudly distributed in Australia by

**Alloy Computer Products Australia Pty Ltd**

**Melbourne**  
4/585 Blackburn Road  
Notting Hill, VIC 3168  
Tel: (03) 8562 9000  
Fax: (03) 9561 7412

**Canberra**  
2/42 Geils Court  
Deakin, ACT 2600  
Tel: (02) 6291 4922  
Fax: (02) 6291 8100

**Sydney**  
99 Baxter Road  
Mascot, NSW 2020  
Tel: (02) 8080 9600  
Fax: (02) 8080 9602