Husky	Unmanaged Ethernet Series
	HUE-411/411E and HUE-413/413E

Overview

The Husky Industrial Ethernet Switch is a cost effective industrially hardened Ethernet switch specifically designed to operate reliably in electrically harsh, demanding environments and in hazardous locations.

The switch provides a high level of immunity to electromagnetic interference and power supply surges typically found In industrial plant environments or external curbside enclosures used in traffic control applications.

The unmanaged HUE-411 and HUE-413 series come with your selection of either Multimode or single mode fiber port. In order to meet redundancy requirement in an industrial device, HUE-411 and HUE-413 series is equipped with redundant power inputs and failure alarm by relay output.

Key Features

● **Hardware Feature**

Complies with IEEE 802.3, IEEE 802.3u and IEEE 802.3X

CSMA/CD Protocol

RJ-45 Port support auto MDI/MDI-X function

Wide-range redundant power design

Store and forward switch architecture

DIN rail and 3-way wall mount design

● **Industrial Conformance**

12 to 48V DC, redundant power with polarity reverse protection and terminal block for master and slave power
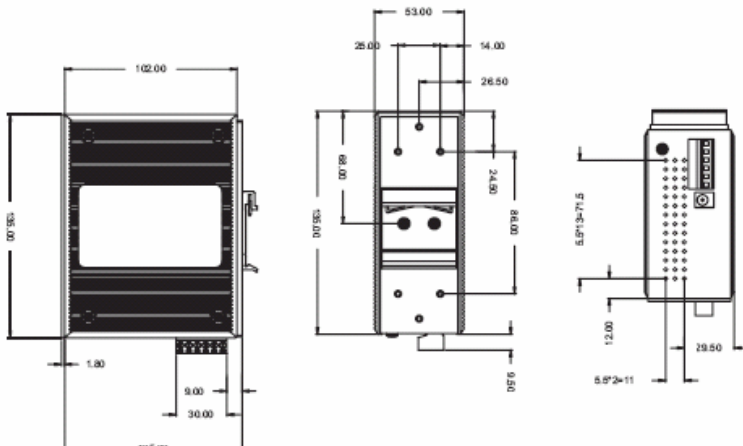
-10 to 70 Degrees C operation temperature

IP-31 standard Aluminum case

EMI complies with FCC Class A, CE EN6100-4-2, CE EN6100-4-3, CE EN6100-4-4, CE EN6100-4-5 and CE EN6100-4-6

Stability testing with IEC60068-2-32(Free fall), IEC60068-2-27(Shock) and IEC60068-2-6(Vibration)

Mechanical Dimension (in mm)

Specifications

Technology	
Standard	IEEE 802.3 10Base-T Ethernet
	IEEE 802.3u 100Base-TX Fast Ethernet
	IEEE802.3x Flow Control and Back-pressure
Protocol Technology	CSMA/CD
Switching Architecture	Store and Forward
Performance	
Network Data Transfer Rate	14,880 pps for Ethernet port and 148,800 pps for Fast Ethernet port
MAC Address	1K
Memory Buffer	512KBytes
Back-plane	1.0 Gbps
Packet throughput ability	0.74Mbps@64bytes (5TX)
Interface	
Diagnostic LED	Per port : Link/Activity (Green), Full duplex/Collision (Green)
	Per unit: Power x 3 (Green)
Network Media	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 cable
	EIA/TIA-568 100-ohm (100m)
Optical cable	SC (Multi Mode) : 50/125um to 62.5/125um
	SC (Single Mode) : 9/125um to 10/125um
Distance & wavelength	Multi Mode : Distance 2 km, Wavelength 1310nm
	Single Mode : Distance 30 km, Wavelength 1310nm
Power	
Power Supply	12 ~48 VDC, Redundant power with polarity reverse protect function and connective removable terminal block for master and slave power
Reverse Polarity Protection	Present
Power Consumption	2.8 Watts
Mechanical	
Case Dimensions (WxHxD)	IP 31 standard, 54 mm (W) x 135 mm (H) x 105 mm (D)
Installation	Provide DIN rail kit and wall mount plate for 3-way installation
Environmental	
Operating Temperature	-10 deg C to 70 deg C
Storage Temperature	-40 deg C to 85 deg C (-40 deg F to 185 deg F)
Operating Humidity	5%~90%RH (Non-condensing)
Regulatory Approvals	
Emission	FCC Class A, CE EN6100-4-2, CE EN6100-4-3, CE EN-6100-4-4, CE EN6100-4-5, CE EN6100-4-6
Safety	UL, cUL, CE/EN60950
Stability Testing	IEC60068-2-32 (Free fall), IEC60068-2-27 (Shock), IEC60068-2-6 (Vibration)

Ordering Information

HUE-411   : Husky Industrial entry level 5-port Ethernet Switch with one Multimode fiber port
              (-10 to 70 deg C operating temperature)

HUE-411E : Husky Industrial entry level 5-port Ethernet Switch with one Multimode fiber port
              (-40 to 80 deg C operating temperature – made to order)

HUE-413   : Husky Industrial entry level 5-port Ethernet Switch with one Single mode fiber port
              (-10 to 70 deg C operating temperature)

HUE-413E : Husky Industrial entry level 5-port Ethernet Switch with one Single mode fiber port
              (-40 to 80 deg C operating temperature – made to order)