Quick Start Guide

HES5GB-Y-XX Series Ethernet Switch

The HES5GB-Y-XX series, with 4 full gigabit copper ports and 1 optical fiber port industrial Ethernet switches, supports IEEE802.3u, IEEE802.3x and IEEE802.3z with 10/100/1000BaseT(X) & 1000BaseFX, full/half duplex, MDI/MDI-X auto-sensing. This series switches are rated to operate at temperatures ranging from -10°C to 60°C. The fanless design, wide operating temperature, high-level ESD provide the products with high performance of resistance to high and low temperature, lightening protection and reliability and safety of industrial network. In addition, the HES5GB-Y switches have DIP switches for enabling or disabling broadcast storm protection, providing another level of flexibility for industrial applications.

A Package Checklist

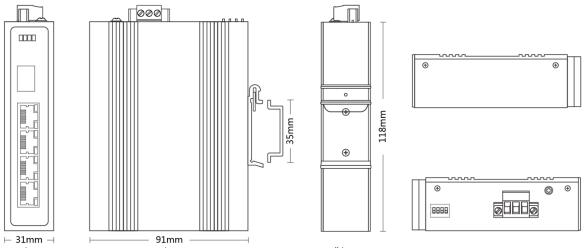
The HES5GB-Y-XX series switch package consists of following items:

√ The HES5GB-Y-XX Series Switch Unit
√ Quick Start Guide

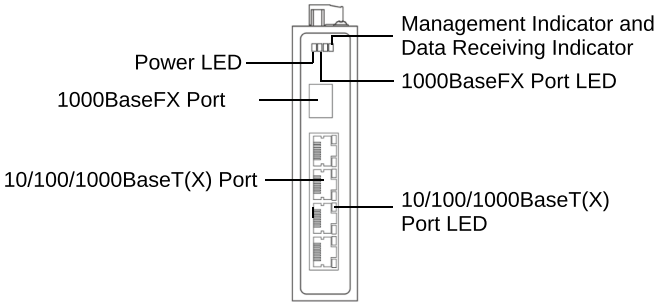
Henrich Electronics Corporation

Address: 7652 Plaza Court, Willowbrook IL 60527, USA
Phone: (909) 939-2468
Email: customer_service@henrich-inc.com
Web: www.henrich-inc.com

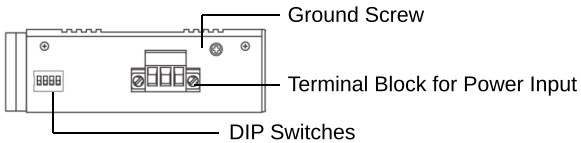
B Panel Layout



Front Panel



Side Panel



C LED Indicators

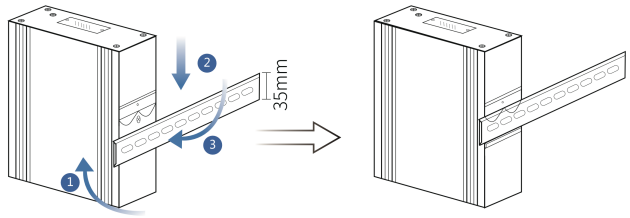
LED Indicators		State	Meaning
P/P1/P2/PS 1/PS2/PWR	Shown as both power indicator and under-voltage alarm indicator. The priority of under-voltage alarm indicator is higher than the power indicator.	Flashing uniformly in a period of 1s.	The power supply is lower than the input 10v, indicating an under-voltage alarm.
		Off.	No normal power supply.
		On.	Power supply is normal.
O/OPT	Shown as both optical fiber port LED indicator and overvoltage alarm indicator. The priority of overvoltage alarm indicator is higher than lnk/act indicator of optical fiber port.	Flashing uniformly in a period of 0.5s.	The power supply is higher than the input 58v, indicating an overvoltage alarm.
		On.	Port is connected.
		Off.	Port is disconnected.
		Flashing.	Data being transmitted.
N	Management Indicator and Data Receiving Indicator	On.	There is an embedded module and it is being initialized.
		Off.	No embedded module.
		Flashing.	There is an embedded module and its initialization is completed. The device is entering normal working mode.
1000Mbps Copper Port LED Indicators	Green LED (Active)	On.	Port is connected.
		Off.	Port is disconnected.
		Flashing.	Data being transmitted.
	Yellow LED (SPD)	On.	1000M is connected.
		Off.	10/100M is connected.

D Dip Switch Instruction

DIP Switch	On	Off	Notes
C/D	Enable remote PD reset function.	Disable remote PD reset function.	This DIP switch is only for PoE switches. Do not turn on this function on non-PoE switches.
LGY	Enable the function of power supply for both standard and non-standard PD Device.	Power supply is only for standard PD Device.	This DIP switch is only for PoE switches. Do not turn on this function on non-PoE switches.
VLAN	Enable port isolation.	Disable port isolation.	
RST	Reset remote PD device in 24 hours.	Disable reset function.	This DIP switch is only for PoE switches. Do not turn on this function on non-PoE switches.

E Product Installation

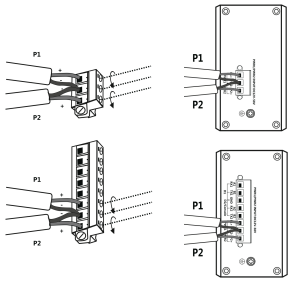
1. Insert the top of the Din-rail into the slot. Make sure the Din-rail been fasten below the stiff metal spring.
2. Press the switch downward in the direction of the lower hook of the guide rail until it is stuck.
3. Check that whether the inspection is stable after buckle.



F Wiring the Power Input

How to wire the power input is shown as following diagram (Only for the schematicdiagram, not including all panels, the wiring is based on the positive and negative pole):

P1+	Positive Pole of First Circuit
P1-	Negative of First Circuit
P2+	Positive of Second Circuit
P2-	Negative of Second Circuit
P1/P2-	First and Second Circuits Share A Negative Pole
+	Positive Pole of Power Supply
-	Negative Pole of Power Supply



Warning

1. Turn the power off before you remove any wires. Read the side label of the product for power related instruction.
2. Please ensure the unit is connected a power supply voltage that corresponds to the range of rating voltage. Never use a greater voltage power source.
3. This is a Class A product, and running this device in a residential environment may cause wireless interference. In this case, the user may need to take practical action against the interference.
4. Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). Run the ground connection from the ground screw to the grounding surface prior to connecting devices.

G Installation Precautions

To avoid equipment damage and personal injury caused by improper use, please observe the following precautions:

 In order to avoid damage caused by equipment falling, please place the equipment in a stable environment.

 When supplying power to the equipment, pay attention to confirm the range of power supply voltage, as well as the positive and negative terminals of the power supply, in order to avoid damage to the equipment by wrong operation.

 To reduce the risk of electric shock, ensure that the equipment is well grounded in the working environment.

H Specifications

Protocol

Standards	IEEE802.3; IEEE802.3i; IEEE802.3u; IEEE802.3x; IEEE802.3ab; IEEE802.3z

Interface

Optical Fiber Port	Number of Port: 1 Port Type: Fixed Optical Port (SC/ST/SFP) Interface Rate: 1000Base-FX
Electrical Port	Number of Port: 4 Port Type: RJ45 Copper Port Port Speed: 10/100/1000M Adaptive Copper Port
Power	Phoenix Terminal

Optical Fiber

Mode	Multi-mode	Single-mode
Center Wavelength	1310nm	1310nm
TX Power	⩾-12dBm	⩾-10dBm
RX Power	⩽-24dBm	⩽-24dBm

Transportation Distance

Twisted Pair Cable	100m (Standard CAT5e/CAT6 Cable)
Optical Fiber	Multi-mode Optical Fiber：550m Single-mode Optical Fiber: 20km

Power

Input Voltage	12 ~ 58VDC (Dual Power Supply Redundant Input)
Full Load Power Consumption	＜5W
Reverse Connection Protection	Supported
Matched Power Supply Cable and Plug	Purchased Separately

Switch Characteristics

Transmission Mode	Store and Forward
Packet Buffer Size	1Mbit
MAC Table Size	8K

Working Environment

Working Temperature	-10°C ~ 60°C
Storage Temperature	-10°C ~ 60°C
Relative Humidity	5% ~ 95% (Non-condensing)

Mechanism

Housing	Metal Enclosure
Ingress Protection	IP40
Installation	Din-rail Mounting
Size (W × H × D)	1.22" × 4.65" × 3.58" (31mm ×118mm × 91mm)

Standards and Certifications

EMI	FCC Part15, CISPR (EN55022) Class A
EMS	EN61000-4-2 (ESD) Level 4, Contact: 8kV; Air: 15kV EN61000-4-3 (RS) Level 3 EN61000-4-4 (EFT) Level 3 EN61000-4-5 (Surge) Level 3, 4KV/2KV, 8/20us (Surge Protection of Power) EN61000-4-5 (Surge) Level 3, 4KV/2KV, 10/700us (Surge Protection of Ethernet Port) EN61000-4-6 (CS) Level 3 EN61000-4-8 (PMS) Level 3 EN61000-4-16 Level 3
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6

Warranty

Warranty	5 Years