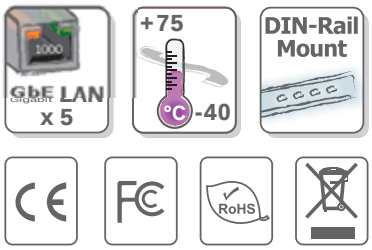
NS-205G

NEW

Unmanaged 5-Port Industrial 10/100/1000 Base-T Ethernet Switch

Highlight Information



Introduction

The NS-205G is 5-port unmanaged gigabit switches that support 10/100/1000 Base-T, with a 10/100/1000M auto negotiation feature and auto MDI/MDI-X function. It can connect 5 workstations and automatically switches the transmission speed (10 Mbps or 100 Mbps or 1000 Mbps) for corresponding connections.

That is an ideal solution for bandwidth-hungry applications (such as high resolution digital image transmission, video/audio file streaming/downloading, and server farm connectivity).

The flow control mechanism is also negotiated. There is link/data rate LEDs for each port to aid trouble-shooting. Port connectors are shielded RJ-45.

Power Savings by Number of Connected Ports and Link Status: Computers do not require Internet access all the time; neither do switches utilize all ports at all times. When a computer or network equipment is shutdown, switches often remain on and continue to consume considerable amount of power. With Green Ethernet technology, NS-205G can automatically detect link status and reduce power usage of ports that are idle. Computers or any connecting parties set to standby mode (not power off), however, will not provide significant power savings.

Power Savings by Cable Length:

The Power Saving switches have the ability to analyze the length of any Ethernet cable connected to them for adjustment of power usage accordingly. Shorter lengths require less power.

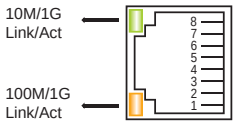
Features

- Power saving Technology
- Automatic MDI/MDI-X crossover for plug-and-play
- Each port supports 10/100 and 1000 Mbps speed auto negotiation
- Store-and-forward architecture
- 10 Gbps high performance memory bandwidth
- Full duplex IEEE 802.3x and half duplex backpressure flow control
- Power Inputs +10 V_{DC} ~ +30 V_{DC}
- Supports operating temperatures from -40 °C ~ +75 °C
- DIN-Rail

Specifications

Technology	
Standards	IEEE 802.3, 802.3u, 802.3ab and 802.3x
Processing Type	Store & forward, wire speed switching
MAC Addresses	8192
Memory Bandwidth	10 Gbps
Frame Buffer Memory	1 Mbit
Jumbo Frames	9K for Speed 1000M
Flow Control	IEEE 802.3x flow control, back pressure flow control
Interface	
RJ-45 Ports	10/100/1000 Base-T auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection
LED Indicators	Power, 10/100/1000M, Link/Act
Ethernet Isolation	1500 V_{rms} 1 minute
Frame Ground for EMS Protection	Yes
Cable	Ethernet: 2-pair UTP/STP Cat.3, 4, 5, EIA/TIA-568 100 Ω
	Fast Ethernet: 2-pair UTP/STP Cat. 5, EIA/TIA-568 100 Ω
	Gigabit Ethernet: 4-pair UTP/STP Cat.5, EIA/TIA-568 100 Ω
Power	
Input Voltage Range	+10 V_{DC} ~ +30 V_{DC} (Non-isolation)
Power Consumption	0.2 A @ 24 V_{DC}, +/-5% arrowed with 1000M Full duplex
Protection	Power reverse polarity protection
Frame Ground for EMS Protection	Yes
Connection	3-Pin Removable Terminal Block
Mechanical	
Casing	Plastic
Flammability	UL 94V-0
Dimensions	33 mm x 78 mm x 107 mm (W x L x H)
Installation	DIN-Rail
Environmental	
Operating Temperature	-40 °C ~ +75 °C
Storage Temperature	-40 °C ~ +85 °C
Ambient Relative Humidity	10% ~ 90% RH, non-condensing

LED Functions



LED Indicator Functions

LED	Color	Description
Power	Red On	Power is On
	Red Off	Power is Off
Ethernet Port	Orange On	Link to 1000 Mbps
	Green On	
	Only Orange On	Link to 100 Mbps
	Only Green On	Link to 10 Mbps

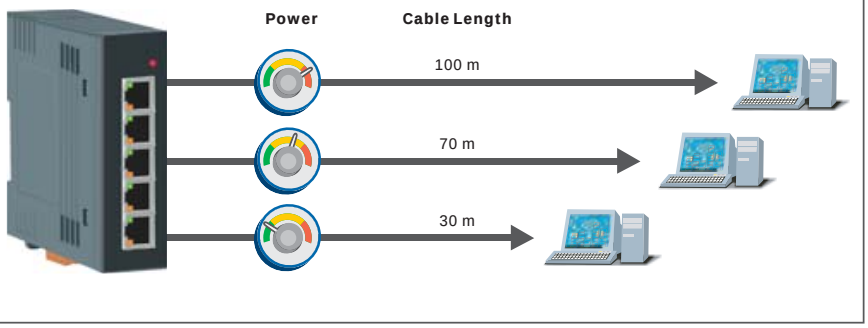
RJ-45 Pin-Out

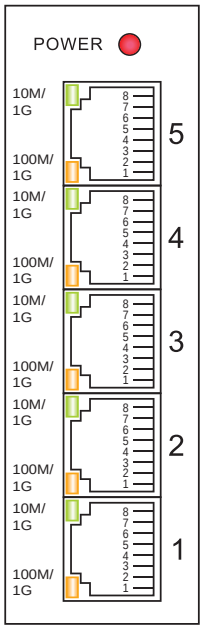
Pin#	Signal Name	Function
1	BI_DA+	Bi-directional pair +A
2	BI_DA-	Bi-directional pair -A
3	BI_DB+	Bi-directional pair +B
4	BI_DC+	Bi-directional pair +C
5	BI_DC-	Bi-directional pair -C
6	BI_DB-	Bi-directional pair -B
7	BI_DD+	Bi-directional pair +D
8	BI_DD-	Bi-directional pair -D

Power Saving Application

An automatic power savings when a specific port is in link down or standby operation.	An intelligent algorithm that actively determines the appropriate power level needed based on cable length.
up 60%	**up 10%**

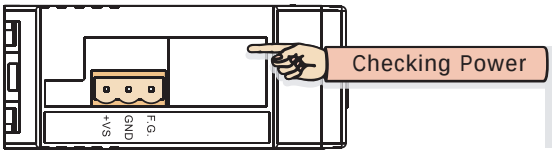
Power Saving by Cable Length





Pin Function for Terminal Block

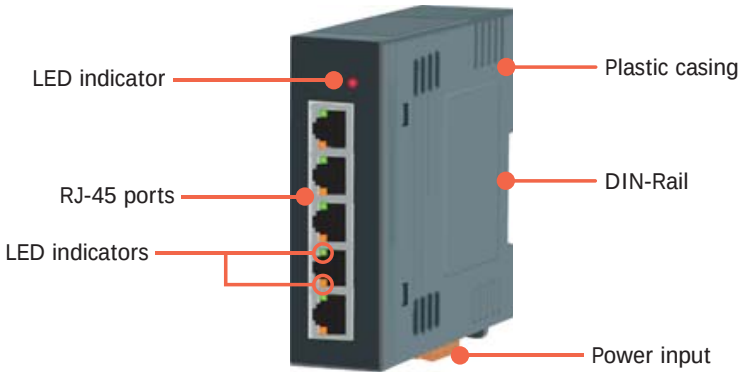
External power supply is connected using the removable terminal block:
+Vs : Power input (+10 V_{DC} ~ +30 V_{DC}) and should be connected to the power supply (+)
GND: Ground and should be connected to the power supply (-)
F.G. : F.G. stands for Frame Ground (protective ground). It is optional. If you use this pin, it can reduce EMI radiation; improve EMI performance and ESD protection.



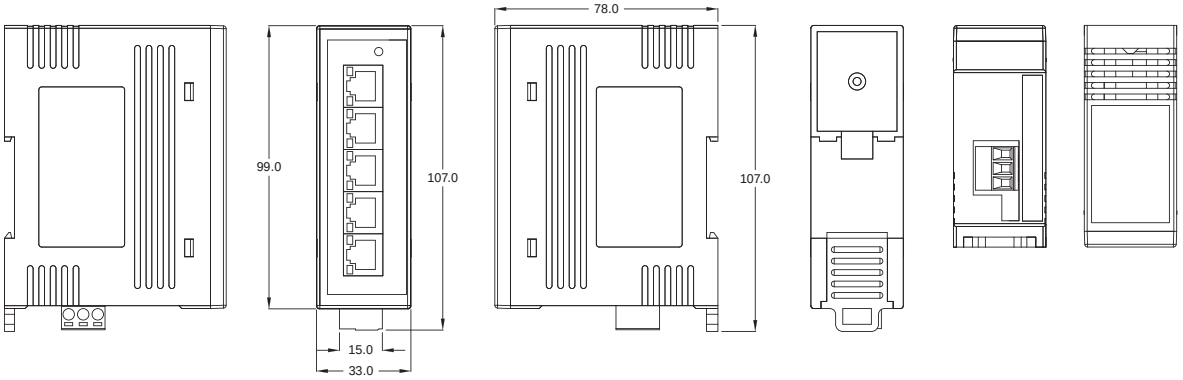
Checking Power

Since the NS-205G consumes 4.8 W Max., ensure that your power supply is able to meet this demand. The Input voltage range is +10 V_{DC} ~ +30 V_{DC}.

Appearance



Dimensions (Unit: mm)



Left Side View | Front View | Right Side View | Back View | Bottom View | Top View

Ordering Information

NS-205G CR	Unmanaged 5-Port Industrial 10/100/1000 Base-T Ethernet Switch (RoHS)

Accessories

GPSU06-6	24V/0.25A, 6 W Power Supply
KWM020-1824F	24V/0.75A, 18 W Power Supply
DIN-KA52F	24V/1.04A, 25 W Power Supply with DIN-Rail Mounting