

# WAGO Lean Managed Industrial Switches



## Features

- Managed switch features with simple setup
- MAC Security Encryption available
- Network Topology Dashboard
- VLAN and Rapid Spanning Tree Protocol
- QoS (port prioritization)
- Modbus monitoring for control system
- Port mirroring for advanced system troubleshooting
- IGMP for Ethernet/IP network optimization.
- 10/100/1000 Mbps auto-detect speeds
- Redundant DC power inputs
- 9VDC to 60VDC input power available
- SFP combo GbE models
- Power over Ethernet model
- IP30 metal cases
- 35mm DIN rail mounting
- 2-year warranty



RoHS Compliant

## WAGO Industrial Lean Managed Switches

Part Number	Price	Model Features																						
		RJ45 Gigabit Ports	PoE + RJ45 Gigabit Ports	SFP Combo Gigabit Ports	MAC Security	Network Topology Dashboard	Alarm Contact	Ethernet Ring Protection Switching	Energy Efficient Ethernet	Command Line Interface (CLI)	IGMP (configurable via CLI only)	QoS	Modbus TCP and SNMP	VLAN Tree Protocol	Rapid Spanning Tree Protocol	Link Layer Discovery Protocol	Port Authentication	Port mirroring	Metal Housing	Operating Temperature Range	IP30 Rating	35mm DIN Rail Mount	2 Year Warranty	
<a href="#">852-1322</a>	\$837.00	8			✓								✓	✓	✓	✓	✓	✓	✓	-20 to +70°C	✓	✓	✓	
<a href="#">852-1328</a>	\$861.00	6		2*																				
<a href="#">852-1812</a>	\$713.00	8			✓															-40 to +60°C				
<a href="#">852-1813</a>	\$799.00	8		2*		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	
<a href="#">852-1813/000-001</a>	\$1,189.00		8	2*																		✓	✓	✓
<a href="#">852-1816</a>	\$1,075.00	16																						

\* Optional SFP modules sold separately.

# WAGO Lean Managed Industrial Switches with MAC Security Encryption



852-1328



852-1322



## Features

- Supports MAC Security Encryption on 2 ports
- Secure configuration and diagnostics via HTTPS or SNMPv3
- 9–48 VDC redundant DC power supply
- Wide operating temperature range

## MAC Security Encryption

MAC Security Encryption uses GCM-AES to implement point-to-point security for Ethernet links between switches. It can secure a network from a host of security threats, including intrusion, man-in-the-middle, masquerading, passive wiretapping, and playback attacks. And because MAC Security Encryption is hardware-based, there is no noticeable added latency.

### WAGO Industrial Lean Managed Ethernet Switches

Part Number	Price	RJ45 Gigabit Ethernet Ports	SFP Combo Gigabit Ports	MAC Security Encryption
<a href="#">852-1322</a>	\$837.00	8	–	2 ports (RJ45)
<a href="#">852-1328</a>	\$861.00	6	2*	2 ports (SFP)

\* Optional SFP modules sold separately.

### Communications Specifications

<b>Operating Mode</b>	Store and forward, non-blocking
<b>MAC Addresses</b>	16000 addresses
<b>Jumbo Frame Size</b>	10kB
<b>Communications Standards</b>	IEEE 802.3, 802.3u, 802.3ab, 802.3z, 802.3x, 802.1p, 802.1x, 802.1Q, 802.1AE

### General Specifications

<b>Operating Temperature Range</b>	-20 to +70°C [-4 to 158°F]
<b>Storage Temperature Range</b>	-40 to +80°C [-40 to +176°F]
<b>Humidity (Non-Condensing)</b>	5 to 95% RH
<b>Environmental Air</b>	No corrosive gases permitted. For use in Pollution Degree 2 environment
<b>Vibration and Shock</b>	IEC60068-2-6 and -2-27
<b>EMC Emission of Interference</b>	FCC Part 15, Subpart B, Class A, Class B EN 55032 Class A and Class B EN 61000-6-4, EN 61000-6-3, EN 55011
<b>EMC Immunity to Interference</b>	EN 55024, EN 61000-6-2, EN 61000-6-1
<b>RoHS</b>	RoHS (Pb-free) compliant
<b>Packaging</b>	Metal case
<b>Protection</b>	IP30
<b>Agency Approvals</b>	CE, cULus

### Power Details

<b>Power Input</b>	Redundant inputs, removable terminal block
<b>Input Voltage</b>	9–48 VDC (Class 2 Power Supply)
<b>Maximum Current</b>	640 mA
<b>System Power Consumption</b>	5.8 W
<b>Power Supply Wiring</b>	12AWG max

### RJ45 Ports

<b>Auto-Crossover</b>	Yes, allows straight-through or crossover cables
<b>Auto-Sensing Operation</b>	Yes, full and half duplex
<b>Auto-Negotiating Speed</b>	Yes
<b>Cable Requirements</b>	10BaseT: 2-pair UTP/STP Cat. 3, 4, 5 cable 100BaseTX: 2-pair UTP/STP Cat. 5 cable 1000BaseTX: UTP/STP Cat.5e/6a cable
<b>Max. Cable Distance</b>	100m [328ft]

### 852-1328 SFP Ports

SFP (pluggable) ports accept 1000Mbps or 100Mbps Mini-GBIC (SFP) transceivers. See our selection of SFP modules for fiber and Gigabit copper options.

### Front Panel LEDs

LED	Color	Description
<b>PWR</b>	Green	Primary power supply status
<b>RPS</b>	Green	Redundant power supply status
<b>ALM</b>	Red	No power at primary or secondary power supply
<b>LINK/ACT</b>	Green	Port link established, data traffic activity
<b>100M/1G</b>	Amber	Port operating speed

### Dimensions

Part Number	Weight kg [lb]	Width	Depth	Height	Drawing
		mm [inches]			
<a href="#">852-1322</a>	0.628 [1.38]	45 [1.78]	92 [3.62]	110 [4.33]	<a href="#">PDF</a>
<a href="#">852-1328</a>	0.639 [1.41]				<a href="#">PDF</a>

# WAGO Lean Managed Industrial Switches



852-1812

852-1813

852-1816



## WAGO Industrial Lean Managed Ethernet Switches

Part Number	Price	RJ45 Gigabit Ethernet Ports	SFP Combo Gigabit Ports
<a href="#">852-1812</a>	\$713.00	8	—
<a href="#">852-1813</a>	\$799.00		2*
<a href="#">852-1816</a>	\$1,075.00	16	—

\* Optional SFP modules sold separately.

## Communications Specifications

<b>Operating Mode</b>	Store and forward, non-blocking
<b>MAC Addresses</b>	8000 addresses
<b>Jumbo Frame Size</b>	10kB
<b>Communications Standards</b>	IEEE 802.3, 802.3u, 802.3ab, 802.3z, 802.3x, 802.2az, 802.1d, 802.1w, 802.1p, 802.1x, 802.1Q, 802.1ab, ITU-T G8032v1/v2

## General Specifications

<b>Operating Temperature Range</b>	-40 to +60°C [-40 to 140°F]
<b>Storage Temperature Range</b>	-40 to +85°C [-40 to +185°F]
<b>Humidity (Non-Condensing)</b>	5 to 95% RH
<b>Environmental Air</b>	No corrosive gases permitted. For use in Pollution Degree 2 environment
<b>Vibration and Shock</b>	IEC60068-2-6 and -2-27
<b>EMC Emission of Interference</b>	FCC Part 15, Subpart B Class A, EN 55011 Class A, EN 55032 Class A, EN 61000-6-4
<b>EMC Immunity to Interference</b>	EN 55024, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, EN 61000-6-2
<b>RoHS</b>	RoHS (Pb-free) compliant
<b>Packaging</b>	Metal case
<b>Protection</b>	IP30
<b>Agency Approvals</b>	CE, cULus

## Features

- Link Layer Discovery Protocol
- Port Authentication
- Ethernet Ring Protection Switching
- Energy Efficient Ethernet
- Command Line Interface
- Secure configuration and diagnostics via HTTPS or SNMPv3
- Alarm signal contact
- 24–48 VDC and 12–60 VDC models

## Power Details

Part Number	852-1812	852-1813	852-1816
<b>Power Input</b>	Redundant inputs, removable terminal block		
<b>Input Voltage</b>	24–48 VDC		12–60 VDC
<b>Maximum Current</b>	350 mA	400 mA	1500 mA
<b>System Power Consumption</b>	10W	11W	12W
<b>Power Supply Wiring</b>	12 AWG max		
<b>Relay Contact</b>	24VDC, 1A resistive, open on fault		

## RJ45 Ports

<b>Auto-Crossover</b>	Yes, allows straight-through or crossover cables
<b>Auto-Sensing Operation</b>	Yes, full and half duplex
<b>Auto-Negotiating Speed</b>	Yes
<b>Cable Requirements</b>	10BaseT: 2-pair UTP/STP Cat. 3, 4, 5 cable 100BaseTX: 2-pair UTP/STP Cat. 5 cable 1000BaseTX: UTP/STP Cat.5e/6a cable
<b>Max. Cable Distance</b>	100m [328ft]

## 852-1813 SFP Ports

SFP (pluggable) ports accept 1000Mbps or 100Mbps Mini-GBIC (SFP) transceivers. See our selection of [SFP modules](#) for fiber and Gigabit copper options.

## Front Panel LEDs

LED	Color	Description
<b>PWR</b>	Green	Primary power supply status
<b>RPS</b>	Green	Redundant power supply status
<b>ALM</b>	Red	Failure of a port connection, miscellaneous alarm
<b>SFP</b>	Green	SFP link established, data traffic activity (852-1813 only)
<b>LINK/ACT</b>	Green	Port link established, data traffic activity
<b>1000</b>	Amber	Port operating speed

## Dimensions

Part Number	Weight kg [lb]	Width	Depth	Height	Drawing
		mm [inches]			
<a href="#">852-1812</a>	0.550 [1.21]	50 [1.97]	100 [3.94]	116 [4.57]	<a href="#">PDF</a>
<a href="#">852-1813</a>	0.570 [1.26]		100 [3.94]	116 [4.57]	<a href="#">PDF</a>
<a href="#">852-1816</a>	0.840 [1.85]		120 [4.72]	160 [6.30]	<a href="#">PDF</a>

# WAGO Lean Managed Industrial Switches with PoE+ Power over Ethernet



852-1813/000-001



RoHS Compliant

## WAGO Industrial Lean Managed Ethernet Switches

Part Number	Price	PoE+ RJ45 Gigabit Ethernet Ports	SFP Combo Gigabit Ports
852-1813/000-001	\$1,189.00	8	2*

\* Optional SFP modules sold separately.

### Power over Ethernet

Power per Port	30W
Max PoE Power Budget	≥24 to <48 VDC: 120W ≥48 to 57 VDC: 240W

### Communications Specifications

Operating Mode	Store and forward, non-blocking
MAC Addresses	8000 addresses
Jumbo Frame Size	10kB
Communications Standards	IEEE 802.3, 802.3u, 802.3ab, 802.3x, 803.2az, 802.3af, 802.3at, 802.1d, 802.1w, 802.1p, 802.1x, 802.1Q, 802.1ab, ITU-T G8032v1/v2

### General Specifications

Operating Temperature Range	-40 to +60°C [-40 to 140°F]
Storage Temperature Range	-40 to +85°C [-40 to +185°F]
Humidity (Non-Condensing)	5 to 95% RH
Environmental Air	No corrosive gases permitted. For use in Pollution Degree 2 environment
Vibration and Shock	IEC60068-2-6 and -2-27
EMC Emission of Interference	FCC Part 15, Subpart B Class A, EN 55011 Class A, EN 55032 Class A, EN 61000-6-4
EMC Immunity to Interference	EN 55024, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, EN 61000-6-2
RoHS	RoHS (Pb-free) compliant
Packaging	Metal case
Protection	IP30
Agency Approvals	CE, cULus

## Features

- 30W Power over Ethernet on all RJ45 ports
- Link Layer Discovery Protocol
- Port Authentication
- Ethernet Ring Protection Switching
- Energy Efficient Ethernet
- Command Line Interface
- Secure configuration and diagnostics via HTTPS or SNMPv3
- Configurable alarm signal contact
- 24–57 VDC redundant DC power supply

### Power Details

Power Input	Redundant inputs, removable terminal block
Input Voltage	24–57 VDC
Maximum Current	6000 mA
System Power Consumption	13W excluding PoE power
Power Supply Wiring	12 AWG max
Relay Contact	24VDC, 1A resistive, open on fault

### RJ45 Ports

Auto-Crossover	Yes, allows straight-through or crossover cables
Auto-Sensing Operation	Yes, full and half duplex
Auto-Negotiating Speed	Yes
Cable Requirements	10BaseT: 2-pair UTP/STP Cat. 3, 4, 5 cable 100BaseTX: 2-pair UTP/STP Cat. 5 cable 1000BaseTX: UTP/STP Cat.5e/6a cable
Max. Cable Distance	100m [328ft]

### SFP Ports

SFP (pluggable) ports accept 1000Mbps or 100Mbps Mini-GBIC (SFP) transceivers. See our selection of [SFP modules](#) for fiber and Gigabit copper options.

### Front Panel LEDs

LED	Color	Description
PWR	Green	Primary power supply status
RPS	Green	Redundant power supply status
ALM	Red	Failure of a port connection, miscellaneous alarm
SFP	Green	SFP link established, data traffic activity
PoE	Green	PoE port power status
LINK/ACT	Green	Port link established, data traffic activity
1000	Amber	Port operating speed

### Dimensions

Part Number	Weight kg [lb]	Width	Depth	Height	Drawing
		mm [inches]			
852-1813/000-001	0.560 [1.23]	50 [1.97]	120 [4.72]	160 [6.30]	PDF

# Stride Industrial Ethernet Fiber Transceivers

## Fast Ethernet

### Description:

STRIDE 100Mb Small Form Factor Pluggable (SFP) transceiver modules (Transmit/Receive). Hot Swappable. 1310nm wavelength. Data transmission up to 4km multimode fiber (SFP-4K-FMF) or 30km singlemode fiber (SFP-30K-FSF). LC duplex receptacle, SFP Multi-Source Agreement compliant.



**NOTE:** Port speed settings for the Stride switch must be manually set to 100 Mbps.

Part Number	Mode	Light Source	Max Trans. Distance	Price
<b>SFP-4K-FMF</b>	Multi-mode	1310 nm, FP	4km	\$54.00
<b>SFP-30K-FSF</b>	Single-mode		30 km	\$48.50

**Note:** Use only Gigabit speed SFPs with SE2-SW10UG-2P-T

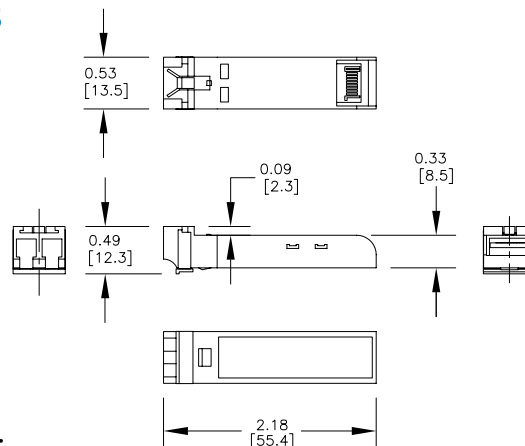
Transmitter Optical characteristics				
Parameter (unit)		Minimum	Typical	Maximum
Output optical power (dBm)	SFP-4K-FMF	-9		0
	SFP-30K-FSF	-15		-8
Extinction Ratio (dB)	SFP-4K-FMF	8.2		
	SFP-30K-FSF			
Center Wavelength (nm)	SFP-4K-FMF	1261	1310	1360
	SFP-30K-FSF			
Spectral width - RMS (nm)	SFP-4K-FMF			7
	SFP-30K-FSF			4
Rise / Fall Time - 10% - 90% (ns)	SFP-4K-FMF			2
	SFP-30K-FSF			

Receiver Optical characteristics			
Parameter (unit)		Minimum	Maximum
Sensitivity (dBm)	SFP-4K-FMF		-30
	SFP-30K-FSF		-34
Operating Wavelength (nm)	SFP-4K-FMF	1260	1620
Loss of Signal - Deasserted (dBm)	SFP-4K-FMF		-30
	SFP-30K-FSF		-35
Loss of Signal - Asserted (dBm)	SFP-4K-FMF	-45	
	SFP-30K-FSF		
Loss of Signal - Hysteresis (dB)	SFP-4K-FMF	0.5	
	SFP-30K-FSF		

General Specifications		
Connector Type		Type LC connector with bail latch
Operating Temperature range		-40 to +85 °C [-40 to +185 °F]
Storage temperature range		-40 to +85 °C [-40 to +185 °F]
Humidity (non-condensing)		5 to 95% RH
Link Speed		Gigabit Ethernet
Laser Type		FP laser diode (Class 1 laser safety standard IEC 60825 compliant)
Media	SFP-4K-FMF	Multi-mode Fiber
	SFP-30K-FSF	Single-mode Fiber
Fiber	SFP-4K-FMF	62.5 / 125 μm
	SFP-30K-FSF	9 / 125 μm
Code	SFP-4K-FMF	FX5
	SFP-30K-FSF	100LX
Distance	SFP-4K-FMF	4km
	SFP-30K-FSF	30 km
Compliances	SFP-4K-FMF	125Mbps IEEE802.3u 100BASE-FX compliant 125Mbps FDDI ISO/IEC 9314-1 compliant
	SFP-30K-FSF	125Mbps IEEE802.3ah 100BASE-LX10 compliant 155Mbps ITU-T G957 STM S-1.1/L-1.1 compliant 155Mbps SONET OC-3 IR-1/LR-1 compliant
Inputs / Outputs		AC-coupled differential inputs and outputs

### Dimensions

Inches [mm]



### Safety Standards:





# Stride Industrial Ethernet Fiber Transceivers

## Gigabit Ethernet

### Description:

STRIDE Gigabit (1.25GB) Small Form Factor Pluggable (SFP) transceiver module (Transmit/Receive). Hot Swappable. Short or long wavelength of 850nm or 1310nm, dependant on model. Supports data transmission up to 550 meters, 2km, 10 km, or 30 km on a single-mode or multi-mode fiber, dependant on model. LC duplex receptacle, SFP Multi-Source Agreement compliant.



Part Number	Mode	Light Source	Max Trans. Distance	Price
<b>SFP-500-GMF</b>	Multi-mode	850 nm, VCSEL	550m	\$43.00
<b>SFP-2K-GMF</b>		1310 nm, FP	2km	\$72.00
<b>SFP-10K-GSF</b>	Single-mode	1310 nm, FP	10 km	\$43.00
<b>SFP-30K-GSF</b>		1310 nm, DFB	30 km	\$99.00

Note: Use only Gigabit speed SFPs with SE2-SW10UG-2P-T

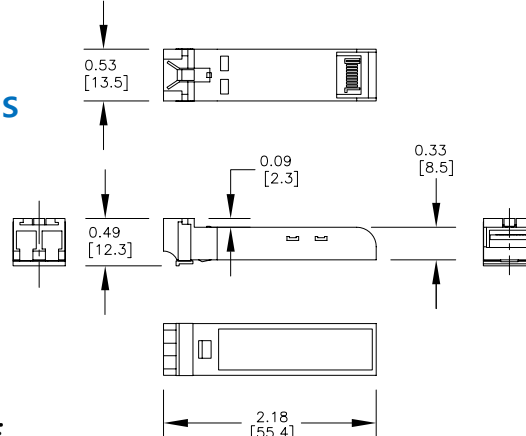
Transmitter Optical characteristics				
Parameter (unit)		Minimum	Typical	Maximum
Output optical power (dBm)	SFP-500-GMF	-9.5		-4
	SFP-2K-GMF	-9		-1
	SFP-10K-GSF	-9.5		-3
	SFP-30K-GSF	-2	1	3
Extinction Ratio (dB)	SFP-500-GMF			
	SFP-2K-GMF	9		
	SFP-10K-GSF			
	SFP-30K-GSF			
Center Wavelength (nm)	SFP-500-GMF	830	850	860
	SFP-2K-GMF	1270		1355
	SFP-10K-GSF	1285	1310	1343
	SFP-30K-GSF	1270		1355
Spectral width - RMS (nm)	SFP-500-GMF			0.85
	SFP-2K-GMF			4
	SFP-10K-GSF			2.8
	SFP-30K-GSF			1
Rise / Fall Time - 20% - 80% (ps)	SFP-500-GMF			260
	SFP-2K-GMF			
	SFP-10K-GSF			
	SFP-30K-GSF			

Receiver Optical characteristics			
Parameter (unit)		Minimum	Maximum
Sensitivity (dBm)	SFP-500-GMF		-17
	SFP-2K-GMF		-19
	SFP-10K-GSF		-20
	SFP-30K-GSF		-23
Operating Wavelength (nm)	SFP-500-GMF	770	860
	SFP-2K-GMF	1260	1610
	SFP-10K-GSF		1355
	SFP-30K-GSF	1270	1580
Return Loss (dB)	SFP-500-GMF		
	SFP-2K-GMF	12	
	SFP-10K-GSF		
	SFP-30K-GSF		
Loss of Signal - Deasserted (dBm)	SFP-500-GMF		-17.5
	SFP-2K-GMF		-19
	SFP-10K-GSF		-20
	SFP-30K-GSF		-23
Loss of Signal - Asserted (dBm)	SFP-500-GMF		
	SFP-2K-GMF	-35	
	SFP-10K-GSF		
	SFP-30K-GSF		
Loss of Signal - Hysteresis (dB)	SFP-500-GMF		
	SFP-2K-GMF	0.5	
	SFP-10K-GSF		
	SFP-30K-GSF		

General Specifications	
<b>Connector Type</b>	Type LC connector with bail latch
<b>Operating Temperature range</b>	-40 to +85 °C [-40 to +185 °F]
<b>Storage temperature range</b>	-40 to +85 °C [-40 to +185 °F]
<b>Humidity (non-condensing)</b>	5 to 95% RH
<b>Link Speed</b>	Gigabit Ethernet
<b>Laser Type</b>	SFP-500-GMF VCSEL laser diode (Class 1 laser safety standard IEC 60825 compliant)
	SFP-2K-GMF FP laser diode (Class 1 laser safety standard IEC 60825 compliant)
	SFP-10K-GSF DFB laser diode (Class 1 laser safety standard IEC 60825 compliant)
	SFP-30K-GSF DFB laser diode (Class 1 laser safety standard IEC 60825 compliant)
<b>Media</b>	SFP-500-GMF Multi-mode Fiber
	SFP-2K-GMF Multi-mode Fiber
	SFP-10K-GSF Single-mode Fiber
	SFP-30K-GSF Single-mode Fiber
<b>Fiber</b>	SFP-500-GMF 50 / 125 μm and 62.5 / 125 μm
	SFP-2K-GMF 50 / 125 μm and 62.5 / 125 μm
	SFP-10K-GSF 9 / 125 μm
	SFP-30K-GSF 9 / 125 μm
<b>Code</b>	SFP-500-GMF SX
	SFP-2K-GMF SX2
	SFP-10K-GSF LX
	SFP-30K-GSF Lhx
<b>Distance</b>	SFP-500-GMF 550m
	SFP-2K-GMF 2km
	SFP-10K-GSF 10 km
	SFP-30K-GSF 40 km
<b>Compliances</b>	SFP-500-GMF 1.0625Gbps Fiber Channel FC-PI 100-M5-SN-I compliant 1.0625Gbps Fiber Channel FC-PI 100-M6-SN-I compliant 1.25Gbps IEEE 802.3z 1000BASE-SX compliant 1.25Gbps IEEE 802.3ah 1000BASE-SX compliant
	SFP-2K-GMF IEEE 802.3 1000BASE-SX+ compliant
	SFP-10K-GSF 1.0625Gbps Fiber Channel FC-PI 100-SM-LC-L compliant 1.25Gbps IEEE 802.3 1000BASE-LX compliant
	SFP-30K-GSF 1.25Gbps Gigabit Ethernet compliant
<b>Inputs / Outputs</b>	AC-coupled differential inputs and outputs

### Dimensions

Inches [mm]



### Safety Standards:



# Stride Industrial Ethernet Copper Transceivers

## Gigabit Ethernet

### Description:

The STRIDE SFP-1GC-T is a hot-pluggable Small Form Factor Pluggable (SFP) transceiver. It has an RJ-45 connector, and can send and receive data at 1.25 Gbps up to 100m distance over 4-pair Cat5e/6a cable. The module is compliant with the SFP Multi-Source Agreement (MSA) and IEEE802.3:2002.



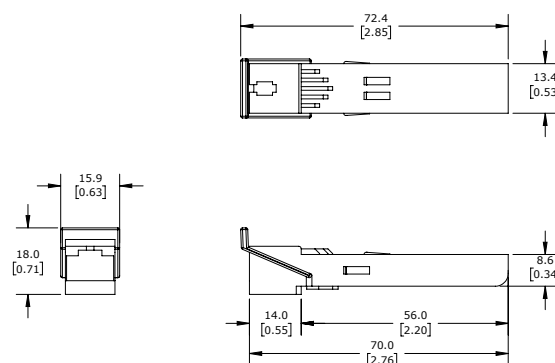
Part Number	Connector Type	Link Speed	Price
<b>SFP-1GC-T</b>	RJ-45	Gigabit Ethernet	\$76.00

RJ45 Ports	
<b>Ethernet Compliance</b>	IEEE 802.3ab (1000Base-T) Gigabit Ethernet
<b>Auto-Crossover</b>	Yes, allows use of straight-through or crossover cables
<b>Auto-Sensing Operation</b>	Yes, full and half duplex
<b>Port Speed</b>	1000Base-T only
<b>Cable Requirements</b>	4-pair UTP/STP Cat.5e/6a cable EIA/TIA-568 100-ohm
<b>Max. Cable Distance</b>	100m [328ft]

General Specifications	
<b>Operating Temperature Range</b>	-40 to +85 °C [-40 to +185 °F]
<b>Storage Temperature Range</b>	-40 to +85 °C [-40 to +185 °F]
<b>Humidity (non-condensing)</b>	5 to 95% RH
<b>Link Speed</b>	Gigabit Ethernet
<b>Compliances</b>	SFP Multi-Source Agreement (MSA)

### Dimensions

Inches [mm]



### Safety Standards:

