

Features

- Provides two SFP open transceiver fiber switch ports and one 10/100/1000 copper switch port
- Each SFP port accepts either Gb or 100Mb fiber SFP transceivers
- Two models for heavy-duty application environments:
 - Hardened for Factory Floor
 - Premium-rated for -40 to 85°C, and outdoors
- Integral terminal blocks for 12, 24, 48VDC power input, external AC power supply optional
- Same packaging and mounting options as popular Magnum CSG14-Series Gb Converter Switches



Convert anything to anything!

The latest technology of SFP fiber transceivers has been integrated into the Magnum™ Gb Converter Switch™ package to produce the Magnum CSG14U Universal Converter Switch. It can handle any Gb fiber type – multi-mode and single-mode – and fiber media distance with a selection of Gb SFP fiber transceivers, up to two of which can be plugged in. It can also handle any 100Mb fiber media type and distance in the same way, with a selection of 100Mb SFP fiber transceivers that similarly plug in. And, for copper media attachment, there is a 10/100/1000 auto-negotiating RJ-45 port. Where Gb Ethernet is in use, the CSG14U converts all media combinations. It is Universal.

The CSG14U is a high-speed flexible edge-of-the-network industrial Ethernet product. The compact package is ideal for industrial network edge installations. It features 12V, 24V or 48V DC power input terminal blocks, or AC input via industrial-grade external power supplies. It has the metal case and DIN-Rail or panel-mounting choices you expect from Magnum industrial grade products.

The Magnum CSG14UH Universal Hardened units are for factory floor applications. The CSG14UH models are built with high-grade components and are constructed using special thermal techniques (patent pending) and a metal case for heavy duty industrial jobs. The ambient temperature rating is for industrial use. No internal air flow is required for cooling, so it resists dust, dirt, moisture, smoke and insects. Mounting options include panel-mounting (brackets included), DIN-Rail mounting or mounting via a rack-mount tray.

The Magnum CSG14UP Universal Premium-rated units are for temperature un-controlled applications, typically located outdoors. The CSG14UP models are built with premium-grade extended temperature components, and use similar thermal techniques (patent pending) as the CSG14UH Hardened units. The ambient temperature rating is -40°C to 85°C. When used outdoors, the CSG14UP should be protected from falling rain. Mounting options include panel-mounting (brackets included), DIN-Rail mounting or mounting via a rack-mount tray.

All CSG14U Universal Converter Switch models come with two (2) sets of LED indicators. One set is on the front for viewing convenience when the unit is DIN-Rail or panel-mounted, and one LED set is mounted in the end adjacent to the ports for easy viewing when units are in a rack-mount tray. The Magnum CSG14U and CSG14 family of Gb Converter Switches and other Magnum products are designed and manufactured in the USA and backed by a three-year warranty.



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Industrial Networking at Its Best™

PERFORMANCE:

Fiber ports: Two Industry standard SFP (Small Form-factor Pluggable) FDX open transceiver ports that accept 1000 Mb and 100Mb SFPs

User switch selection of Gb or 100Mb speed, per port.

RJ-45 Port Data Rate: 10 / 100 / 1000 Mbps, FDX and HDX modes, auto-negotiation and auto-cross MDI-MDIX

Non-blocking switching, 64KB packet buffer memory

Address buffer storage = 1K addresses

Address buffer age-out time = 300 seconds

NETWORK STANDARDS:

Ethernet IEEE 802.3, IEEE 802.3u & ab; IEEE 802.1p, 1000BASE-TX, 1000BASE-SX, -LX, -ZX, 100BASE-FX

VLANs SUPPORT:

Data packets that have the 4 bytes tagged VLAN field (IEEE 802.1q) inserted in them are received and transmitted unchanged by all CSG14U Universal Converter Switches.

OPERATING ENVIRONMENT:

Ambient Temperature ratings:

CSG14UH: the ambient temperature rating is -25°C to 60°C long term per independent agency tests (UL), or -40°C to 85°C short term per IEC Type Tests

CSG14UP: the ambient temperature ratings of -40°C to 75°C long term per indep. agency tests (UL), or -40°C to 85°C short term per IEC Type Tests.

Storage temperature, all models: -40° to 212°F (-40°C to 100°C)

Cold start: CSG14UH model to -20°C, CSG14UP model to -40°C

Ambient Relative Humidity, all models: 5% - 95% (non-condensing)

Altitude, all models: -200 to 50,000 ft. (-60 to 15,000m)

Conformal coating (humidity protection) option, request quote.

PACKAGING:

Enclosure: Robust sheet metal; H&P models: IEC 529 rated IP40

Dimensions of units: 3.5 in H x 3.0 in W x 1.0 in D (8.9 cm x 7.6 cm x 2.5 cm)

Weight: CSG14 Switch Units (populated): 6.1 oz (173g)

Power Supply - Hd, Hi: 5.8 oz (165g)

Power Supply - Pd, Pi: 7.9 oz (225g)

Cooling Method: Convection, case used as a heat sink.

MOUNTING FOR CSG14 FAMILY OF SWITCH UNITS:

Metal panel mounting clips: included

DIN-Rail mounting option:

Model # DIN-RAIL MC2, illustrated here

Rack-mount option: Model MC14-TRAY

Depth: 6.0", Width 17",

Height 2.25"(15 cm D x 43cm W x 5.7cm H)



SFP SPEED SELECTION SWITCHES:

Each SFP port is factory set to Gb speed.

Users may select 100Mb speed via DIP switches on the back.

Each SFP port is individually speed-selectable.

After changing speed switch setting, power down the unit.



FIBER PORT CONNECTORS:

Gigabit SFP Fiber Transceivers

"SFP-SX"=1000BASE-SX-LC: fiber optic 850 nm multimode SFP, 550 m. nominal, 2km per Power Budget

"SFP-ESX"= 1000BASE-SX Extended, fiber optic 1310nm multimode with LC, 2 km nom., 3 km per Power Budget

"SFP-LX10"= 1000BASE-LX-SLC: fiber optic 1310nm single-mode SFP, 10 km nominal, 22km per Power Budget

"SFP-LX25"= 1000BASE-LX-SLC: fiber optic 1310nm single-mode SFP, 25 km nominal, 40km per Power Budget

"SFP-ZX40"= 1000BASE-ZX-SLC: fiber optic 1550nm single-mode SFP, 40 km nominal, 60km per Power Budget

"SFP-ZX70"= 1000BASE-ZX-SLC: fiber optic 1550nm single-mode SFP, 70 km nominal, 90km per Power Budget

100Mb SFP Fiber Transceivers

"SFP100P-FXMM2"=100FX SFP-LC Premium MM plug-in, multi-mode, 2Km distance (formerly "XSFPLXMM")

"SFP100P-FXSM20"= 100FX SFP-LC Premium SM-20 plug-in, single-mode, 20Km distance (formerly "XSFPLXSM")

"SFP100P-FXSM40"= 100FX SFP-LC Premium SM-40 plug-in, single-mode, 40Km distance (formerly "XSFPEXSM")

For other Gb fiber connectors or distances, request quote.

Model #	POWER INPUT			MOUNTING		
	Hd, Hi AC external +12V Term Blk	Pd, Pi AC external +12V Term Blk	12V DC Term. Block	24V DC Term. Block	-48V DC Term. Block	Panel Clips included or DIN-Rail
CSG14UH-Hd, Hi	X		X			Panel incl.
CSG14UH-12VDC			X			Panel incl.
CSG14UH-24VDC				X		Panel incl.
CSG14UHR-24VDC				X		DIN-Rail
CSG14UH-48VDC					X	Panel incl.
CSG14UP-Pd, Pi		X	X			Panel incl.
CSG14UP-12VDC			X			Panel incl.
CSG14UP-24VDC				X		Panel incl.
CSG14UPR-24VDC				X		DIN-Rail
CSG14UP-48VDC					X	Panel incl.

Factory Floor Outdoors

RJ-45 PORT CONNECTORS:

RJ-45 triple-speed 10/100/1000 auto-negotiation and auto-cross: shielded 8-Pin female. Supports shielded (STP) and unshielded (UTP) twisted pair cables

LED INDICATORS, two sets: top-front and in end with ports:

POWER: ON for power applied

Gb per port: Steady ON for Gb, OFF for 100 or 10 Mb speed

LK/ACT per port: Steady ON for LINK with no traffic, blinking for Activity.

POWER SUPPLIES for AC (EXTERNAL):

Power input DC jack (8 to 15V) is 2.5mm, center +ve, with 6ft. DC cord

Input: 100-240vac at 47-63 Hz for "-Hd", "Hi" models, see Note 1,2

Input: 95-260vac at 47-63 Hz for "-Pd", "Pi" models, see Note 1,2

POWER INPUT OPTIONS for DC:

12V DC, internal (range of 8.0 to 15V DC), built-in screw terminal block for +, -, ground. The 12V DC jack is also present.

24V DC internal (range of 18 to 36V DC) built-in screw terminal block for +, -, ground. The 12V DC jack is also present.

-48V DC internal (range of 30 to 60V DC), built-in screw terminal block for +, -, ground. The 12V DC jack is also present.

Note1: the 12V DC jack can be used for dual source DC power input

Note2: internal DC power floats, user may ground + or - if desired.

Power Consumption, all models: 4 Watts typical. 5 Watts max.

AGENCY APPROVALS AND STANDARDS COMPLIANCE:

UL listed (UL60950), cUL, CE, Emissions meet FCC Part 15, Class A.

NEBS L3 and ETSI compliant

IEC61850 EMC and Operating Conditions Class C for Power Substations

IEEE 1613 Environmental Standard for Electric Power Substations

P model: NEMA TS-2 and TEES for traffic control equipment

WARRANTY: Three years

Made in USA

1: External 12V1A power supply, wall plug or power cord for North America AC receptacles. Temperature rating same as CSG14UH, see above. (North America: for spare, order Model PSH-12V1A-Hd. International: order Model PSH-12V1A-Hi with IEC plug).

2: External 12V1A power supply, rated for outdoor temperatures same as CSG14UP, see above. Universal AC input with recessed IEC plug. (North America: for spare, order Model PSP-12V1A-Pd, International: order Model PSP-12V1A-Pi with IEC plug).

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