HIRSCHMANN
A **BELDEN** BRAND

PB00007HE

The MSP30-X Modular Ethernet Gigabit Switch for Extreme Environments

Fully modular and ruggedized Gigabit switch with Layer 3 capabilities – designed to perform in harsh industrial conditions.

The Gigabit modular switch provides industrial applications with several new features for easier installation, space savings and maximum network availability.

- Uptime in harsh environments – Safeguarded for use in humid temperatures and dusty conditions, as well as in applications with networks strained by high vibration.
- Wall-mounting capability – New mounting feature saves customers both costs and space, while also improving the ease of installation.
- Modular and flexible – Based on its original design, MSP30-X keeps its modularity and flexibility even though it is re-designed to operate in harsh industrial areas like engine rooms.

To offer engineers, integrators, machine builders and plant operators the highest network availability in the harshest of environments, the new MSP30-X Modular Ethernet Gigabit Switch features time synchronization for real-time data, fixed mounting capabilities and can also withstand extreme vibration strain.

The combination of these features gives the MSP30-X switch the ability to keep networks up and running at all times, fulfilling customer requirements in demanding conditions. This gigabit modular switch brings completely new advantages to the industrial market in which Ethernet devices could previously only be placed in the control rooms.

Applications

The MSP30-X switch's rugged design is approved by global GL standards for Environmental Category D and is certified for use in machine building, power transmission and distribution, oil and gas, mining, wind power, as well as other hazardous areas. It also has approval to operate in transportation settings, specifically seaports and railroads.

Your Benefits

Until now, only fixed, configured product variants could be used in the operations area. With the release of the MSP30-X switch, customers have both modular and flexible Ethernet product offering Layer 3 functionality in the operations area. Also, this new switch has additional brackets for mounting of modules on the main device body and Ethernet cables can be tightly screwed onto the module using M12 connectors. This makes it possible to use this device in very harsh operating areas, a first-time capability for modular switches, like the MSP family.

The features of this product have been designed with the customer feedback in mind. Customers wished to have rugged installation possibility and improved network availability by using Ethernet technology in their engine rooms and the capability of the device to withstand the harshest industrial conditions like 4g vibrations.

A new product to serve your needs.
Be certain.

The MSP30-X Modular Ethernet Gigabit Switch

The MSP30-X is the redesign of Hirschmann's MSP30 Gigabit Switch. The new switch no longer requires the installation of cabinets – customers can simply mount the switch to a wall. The wall-mounting back plane, with M12 connectors, allows the product to withstand vibrations up to 4g. Enduring such a harsh environment makes it unique to the industry.

Approved for GL Environmental Category D, the MSP30-X switch can also function in temperatures from -40˚C to +70˚C and up to approximately 100 percent humidity.

In addition, all components are fixed with extra glue on the motherboard, which allows the switch to endure great vibration strain without affecting any motherboard components – a benefit not possible with DIN rail designs.

Benefits at a Glance

- Approved by global GL standards for Environmental Category D and for use in marine and railroad applications
- Also certified for use in transformer stations, hazardous areas, transportation and safety
- Operates at a temperature range from -40˚C to +70˚C and up to approximately 100 percent relative humidity
- Withstands vibrations up to 4g
- Precision Time Protocol version 2 (PTPv2) for real-time data
- Possibility of 28 ports with M12 connectors
- Solid, wall-mounting backplane with M4 screws
- Major components adhered to the motherboard
- Additional brackets for attachment of modules on the main device body

The new switch no longer requires the installation of cabinets.

MSP30/MSP32 MICE Switch Power Configurations

Gigabit Ethernet Uplink Ports, Gigabit Ethernet Uplink Ports with PoE+ Capability

`MSP30-08 04 0 S C Z9 99 HH E 3A XX.X`

Design

MSP30 = Gigabit Ethernet Uplink Ports
MSP32 = Gigabit Ethernet Uplink Ports with PoE(+) Capability

Number of Fast Ethernet Ports

08 = 08 x 10/100 Mbit/s
16 = 16 x 10/100 Mbit/s
24 = 24 x 10/100 Mbit/s

Number of Gigabit Ethernet Ports

04 = 4 x 10/100/1000 Mbit/s

Number of 10 Gigabit Ethernet Ports

0 = 10/100/1000/10000 Mbit/s

Temperature Range

S = Standard 0 °C to +60 °C
T = Extended –40 °C to +70 °C
E = Extended –40 °C to +70 °C with conformal coating

Power Supply

C = 24/36/48 V DC (18 to 60 V DC)
P = 47 to 57 V DC (PoE), 53 to 57 V DC (PoE+)

Approvals

Z9 = CE, FCC, EN 61131 (EN 60950)	VT = VY + EN50121–4
Y9 = Z9 + cUL508 (UL60950)	T9 = Z9 + EN50121–4
W9 = Z9 + ATEX Zone 2	TY = T9 + cUL508 (UL60950)
WY = Y9 + ATEX Zone 2	U9 = Z9 + GL (ABS, BV, DNS, LR)
X9 = Y9 + ISA 12.12.01 Class 1 Div. 2	UY = U9 + cUL508 (UL60950)
V9 = Z9 + IEC 61850, IEEE 1613	UW = UY + ATEX Zone 2
VY = V9 + cUL508 (UL60950)	UX = UY + ISA 12.12.01 Class 1 Div. 2
VU = VY + GL (ABS, BV, DNS, LR)	

Software Packages

99 = Reserved
UR = Unicast Routing
MR = Multicast Routing

Customization

HH = Hirschmann Standard
HX = Hirschmann Extreme

Software Configuration

E = Entry (Hirschmann Standard Configuration)

Software Level

3A = HiOS Layer 3 Advanced
2A = HiOS Layer 2 Advanced

Software Release

XX.X = Current Software Release
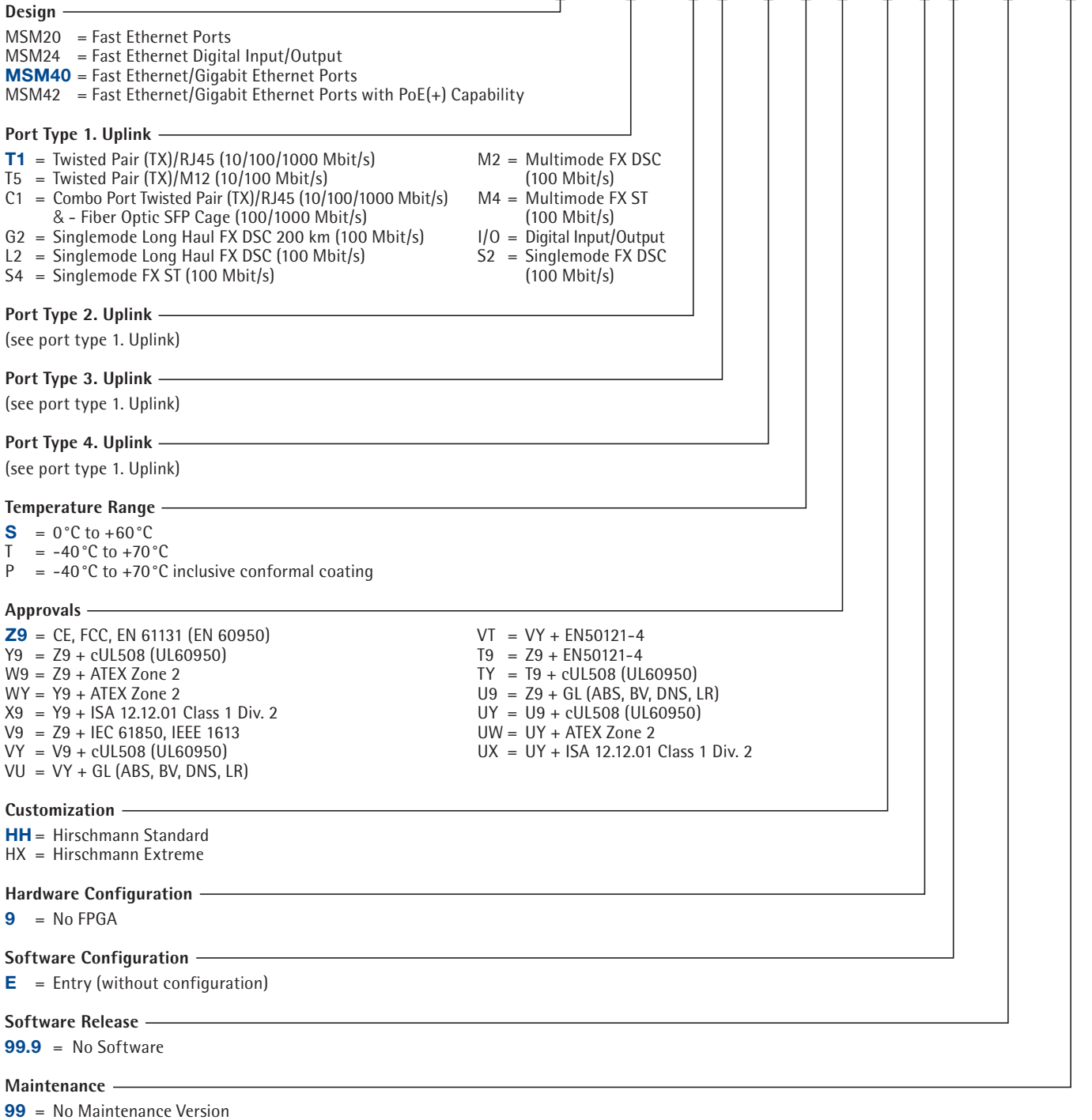03.0 = Software Version 03.0
02.0 = Software Version 02.0

NOTE: The last four categories (**Customization, Software Configuration, Software Level** and **Software Release**) are optional.

MSM20/MSM24/MSM40/MSM42 MICE Switch Power Media Module Configurations

Fast Ethernet Ports, Fast Ethernet/Gigabit Ethernet Ports, Fast Ethernet/Gigabit Ethernet Ports with PoE+ Capability, Fast Ethernet/Gigabit Ethernet Ports with Enhanced Redundancy and PTP

`MSM40` `-T1` `T1` `T1` `T1` `S` `Z9` `HH` `9` `E` `99` `.9` `99`

Design

MSM20 = Fast Ethernet Ports
MSM24 = Fast Ethernet Digital Input/Output
MSM40 = Fast Ethernet/Gigabit Ethernet Ports
MSM42 = Fast Ethernet/Gigabit Ethernet Ports with PoE(+) Capability

Port Type 1. Uplink

T1 = Twisted Pair (TX)/RJ45 (10/100/1000 Mbit/s)
T5 = Twisted Pair (TX)/M12 (10/100 Mbit/s)
C1 = Combo Port Twisted Pair (TX)/RJ45 (10/100/1000 Mbit/s) & – Fiber Optic SFP Cage (100/1000 Mbit/s)
G2 = Singlemode Long Haul FX DSC 200 km (100 Mbit/s)
L2 = Singlemode Long Haul FX DSC (100 Mbit/s)
S4 = Singlemode FX ST (100 Mbit/s)

M2 = Multimode FX DSC (100 Mbit/s)
M4 = Multimode FX ST (100 Mbit/s)
I/O = Digital Input/Output
S2 = Singlemode FX DSC (100 Mbit/s)

Port Type 2. Uplink

(see port type 1. Uplink)

Port Type 3. Uplink

(see port type 1. Uplink)

Port Type 4. Uplink

(see port type 1. Uplink)

Temperature Range

S = 0 °C to +60 °C
T = –40 °C to +70 °C
P = –40 °C to +70 °C inclusive conformal coating

Approvals

Z9 = CE, FCC, EN 61131 (EN 60950)
Y9 = Z9 + cUL508 (UL60950)
W9 = Z9 + ATEX Zone 2
WY = Y9 + ATEX Zone 2
X9 = Y9 + ISA 12.12.01 Class 1 Div. 2
V9 = Z9 + IEC 61850, IEEE 1613
VY = V9 + cUL508 (UL60950)
VU = VY + GL (ABS, BV, DNS, LR)

VT = VY + EN50121–4
T9 = Z9 + EN50121–4
TY = T9 + cUL508 (UL60950)
U9 = Z9 + GL (ABS, BV, DNS, LR)
UY = U9 + cUL508 (UL60950)
UW = UY + ATEX Zone 2
UX = UY + ISA 12.12.01 Class 1 Div. 2

Customization

HH = Hirschmann Standard
HX = Hirschmann Extreme

Hardware Configuration

9 = No FPGA

Software Configuration

E = Entry (without configuration)

Software Release

99.9 = No Software

Maintenance

99 = No Maintenance Version

NOTE: The categories (**Customization, Hardware Configuration, Software Configuration** and **Software Release**) are optional.

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www.hirschmann.com
MSP30-X-MODULAR-ETHERNET-GIGABIT-SWITCH_PB00007_INIT_HIR_1014_E_EMEA