

# SWMD-7512, 7516 & 7520 SERIES

## INDUSTRIAL MANAGED GIGABIT POE SWITCH



### Description

Flexible and cost-effective, this is an ideal industrial solution where high-throughput and high-reliability are fundamental.

#### Unprecedented throughput and power:

CXR SWMD-75 Series offers 12 versions of up to 20 Gigabit ports, with different port configurations in copper, PoE or fiber, all of which include 4 x 1/10 Gigabit Ethernet SFP uplinks.

Specifically designed for bringing power through Ethernet cables virtually anywhere, it supports a maximum of 8 PoE/PoE+ ports (802.3af/at) to produce up to 240W Power over Ethernet output.

#### Rugged and reliable:

This switch series is EN61000-6-2, EN61000-6-4, IEC/EN/UL62368-1:2014 and FCC certified, able to withstand the harshest environments and the most demanding EMC environment for almost any application. NEMA TS-2 certification further ensures that it is the perfect choice for smart cities and traffic control. Its fanless design and EMC Level 3 protection guarantee reliable operations between -40 and +70 °C, and zero packet loss even with all ports running full power.

High-performance network redundancy functions provide self-recovery in less than 20ms on full load, enabling a reliable network through almost any redundant ring topology such as ITU-T G.8032 ERPS Ring, IEEE802.1D-2004 RSTP, STP, MSTP, MRP (Manager/Client), iA-Ring, and iA-Chain.

#### Secure and smart:

To prevent network intrusions, it is necessary to have a good accessing control mechanism that can identify, authenticate and authorize users. SWMD-75xx supports user account, password policy, and authentication interface management functions that comply with IEC62443 standards. The multifunctional web dashboard also offers further intelligent features such as Quality of service (QoS) per port or per VLAN, VLAN, IGMP and port mirroring.

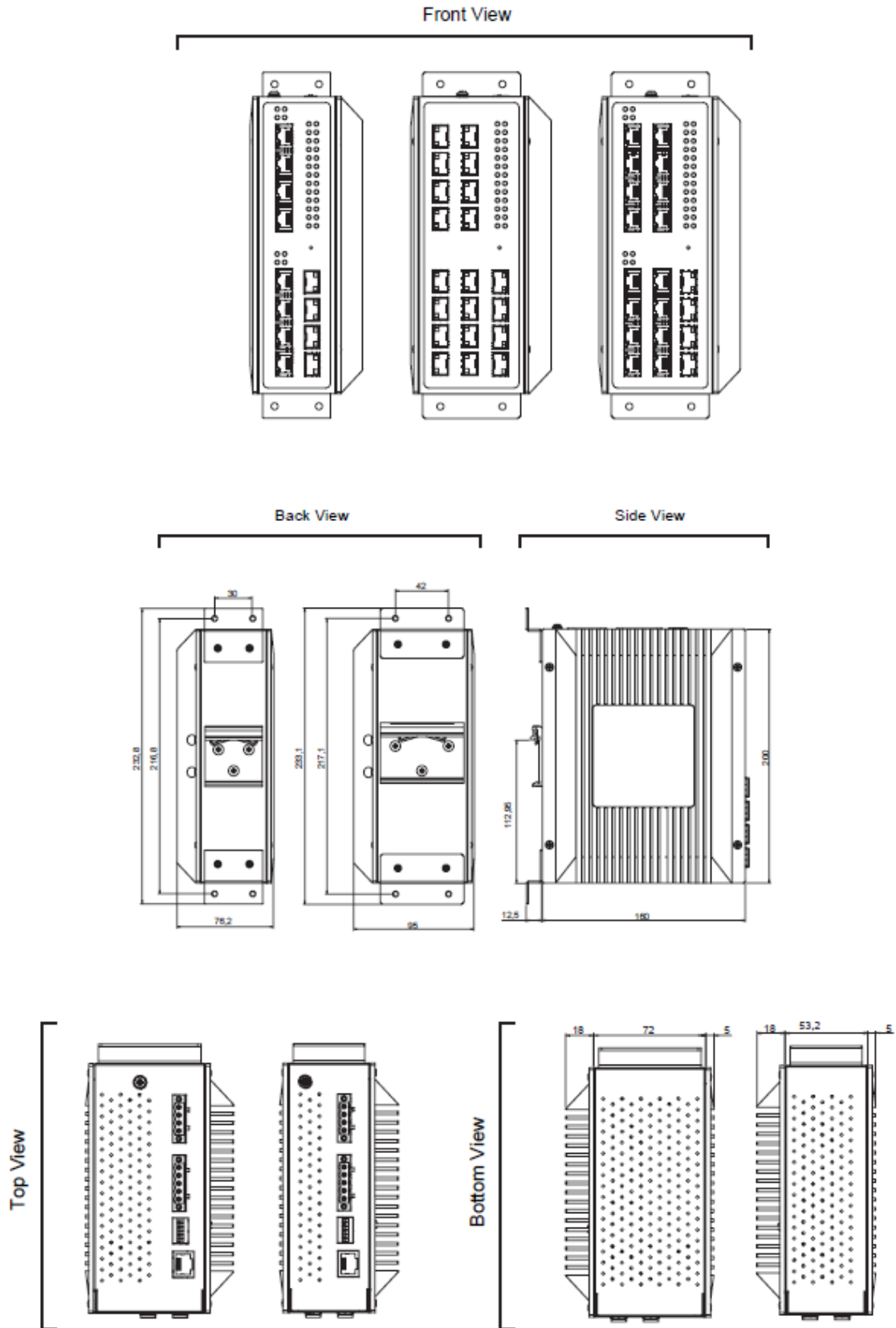
ITU-T G.8032  
ERPS

IEEE 1588V2

COMPLIANT  
KEMA/DNV.GL

SECURITY  
IEC62443-4-2

# Dimensions & Layout



## Specifications

Switch Properties	
Priority Queues	8
VLAN Table	4096
MAC-Based VLAN	512
VLAN ID Range	VID 1 to 4094
Trunk Group	4
Static IGMP Groups	128
Dynamic IGMP Groups	256
Mac Table Size	16k
Packet Buffer Size	1.5MB
Jumbo Frame	9216 Byte

## Specifications

Ethernet	
<b>Standard</b>	<p>IEEE 802.3 for 10BaseT            IEEE 802.3u for 100BaseT(X)            IEEE 802.3ab for 1000BaseT(X)            IEEE 802.3z for 1000BaseX            IEEE 802.3ae For 10 Gigabit Ethernet Fiber            IEEE 802.3x for Flow Control, back pressure flow control            IEEE 802.1D-2004 for Spanning Tree Protocol            IEEE 802.1w for Rapid Spanning Tree Protocol            IEEE 802.1s for Multiple Spanning Tree Protocol            IEEE 802.1Q for VLAN Tagging            IEEE 802.1p for Class of Service            IEEE 802.1X for Authentication            IEEE 802.3ad for Port Trunk with LACP            IEEE 802.3az for Energy Efficient Ethernet</p>
<b>Protocols</b>	<p>IPv4, IPv6, IGMPv1/v2/v3, IGMP Snooping, GARP, GMRP, GVRP, SNMPv1/v2c/v3, SNMP Inform, ICMP, Telnet, SSH, DHCP Relay/Client, BootP, TFTP, SMTP, SMTP (Gmail), RMON, HTTP, HTTPS, Syslog, MRP (Manager/Client), LLDP, 802.1x, EAP, RADIUS, TACACS+, Mirror port, QoS, ACL, ITU-T G.8032 ERPS Ring, STP, RSTP, MSTP, Compatible Ring/Chain, U-Ring, NTP Server/Client, Serial Console, Modbus/TCP, IEEE 1588 PTP V1/V2, UDLD, Security, Trunk, LACP, MLD, 802.1Q VLAN, Port-Based VLAN, MAC-Based VLAN, IP-Subnet-Based VLAN, Protocol-Based VLAN, QinQ, 802.1x, ARP spoof Prevention, DHCP snooping, IP source Guard, Dynamic ARP Inspection, DHCP relay Agent</p>
<b>Redundancy</b>	<p>ITU-T G.8032 ERPS Ring, STP, RSTP, MSTP, Compatible Ring/Chain, U-Ring</p>
<b>Time Synchronization</b>	<p>Network Synchronization: Precision Network Synchronization            NTP Server/Client, SNTP: IEEE1588v1 OC/BC (Software) IEEE1588v2 E2E TC (Hardware) - ns acc. IEEE1588v2 OC/BC (Software)</p>
<b>Automation Profiles</b>	<p>Modbus/TCP device status registers provided</p>
<b>SNMP MIB</b>	<p>MIB II, IF-MIB, SNMPv2 MIB, BRIDGE-MIB, RMON MIB Group 1,2,3,9, RFC RFC 1157, RFC 1213, RFC 1215, RFC 1493, RFC 1643, RFC 1757, RFC 2011, RFC 2012, RFC 2013, RFC 2233, RFC 2571, RFC 2742, RFC 2819, RFC 2863, RFC 3411, RFC 3412, RFC 3413, RFC 3414, RFC 3415, RFC 2674</p>

## Specifications

Power	
<b>Input Voltage</b>	9-57 VDC for Non-PoE models 45-57 VDC for 802.3af mode 51-57 VDC for 802.3at mode
<b>Input Current (System)</b>	Max. 2.2 A @ 12 VDC (without PoE) Max. 3.3 A @ 45 VDC (Support up to 8 ports at 15.4W per PoE port) Max. 5.2 A @ 51 VDC (Support up to 8 ports at 30W per PoE port)
<b>Power consumption (System)</b>	Max. 26.4 W @ 12 VDC (without PoE) Max. 148.5 W @ 45 VDC (Support up to 8 ports at 15.4W per PoE port) Max. 265.2 W @ 51 VDC (Support up to 8 ports at 30W per PoE port)
<b>Connector</b>	5-Pin 5.08mm Lockable Terminal Block
<b>Reverse Polarity Protection</b>	Yes
Interfaces	
<b>RJ-45 Ports</b>	Up to 16 10/100/1000BASE-T(X) auto negotiation speed
<b>Fiber Optics Ports</b>	Up to 16 100/1000BASE-X SFP slot plus 4 1000BASE-X or 4 10G SFP slots
<b>LED Indicators</b>	PWR1, PWR2, Alarm, Run, Ring, Ring Master, RJ-45 Link/Speed, SFP Link, PoE
<b>Console</b>	RS232 (RJ45 connector)
<b>Relay Output</b>	2 relay outputs with current carrying capacity of 1A @ 24 VDC
<b>DIP Switches</b>	Ring Control and Profinet Setting
<b>Button</b>	Reset Button
Physical Characteristics	
<b>Housing</b>	IP30 SPCC Metal housing, ruggedized Heat-sink
<b>Dimension (W x H x D)</b>	SWMD-7512: 76 x 200 x 160 mm; SWMD-7516/7520: 95 x 200 x 160 mm
<b>Weight</b>	2,500 g
<b>Installation</b>	DIN-Rail, Wall mount (optional kit)
Environmental Limits	
<b>Operating Temperature</b>	-40 °C to +70 °C (-40 °F to +158 °F)
<b>Storage Temperature</b>	-40 °C to +85 °C (-40 °F to +185 °F)
<b>Ambient Relative Humidity</b>	5% to 95%, 55 °C (Non-condensing)

## Regulatory Approvals

Regulatory Approvals				
<b>Safety</b>			UL62368-1, 2nd Ed., CSAC22.2 N. 62368-1-14, NZS62368.1:2018, EN62368-1:2014+A11:2017	
<b>EMC</b>			FCC Part 15, Subpart B, Class A EN 55032, EN 55024, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-4	
<b>Traffic Control</b>			NEMA TS-2	
Test	Item		Value	Level
IEC 61000-4-2	ESD	Contact Discharge	±6KV	3
		Air Discharge	±8KV	3
IEC 61000-4-3	RS	80-1000MHz	10 (V/m)	3
		1.4-2.0GHz	3(V/m)	2
		2.0-2.7GHz	10(V/m)	3
IEC 61000-4-4	EFT	DC Power Port	±2.0KV	3
		Signal Port	±1.0KV	3
IEC 61000-4-5	Surge	DC Power Port	Line-to Line ±1.0KV	3
		Signal Port	Line-to Earth ±2.0KV	3
IEC 61000-4-6	CS	0.15-80MHz	10V rms	3
IEC 61000-4-8	PFMF	Enclosure	30V/m	4
IEC 61000-4-11	DIP	AC Power Port	-	A
<b>Shock</b>	MIL-STD-810G Method 516.5			
<b>Drop</b>	MIL-STD-810F Method 516.5			
<b>Vibration</b>	MIL-STD-810F Method 514.5 C-1 & C-2			
<b>RoHS II</b>	Yes			
<b>MTBF</b>	20 years			

## Ordering information

Model	Description
SWMD-7512-H-8TGX-4SFPP	Switch Ethernet Durcis, montage rail-din. 8 x 10/100/1000BTX RJ45 et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70°C. Alimentation 9-57VDC.
SWMD-7512-H-4TGX4SFP-4SFPP	Switch Ethernet Durcis, montage rail-din. 4 x 10/100/1000BTX RJ45, 4x100/1000FX SFP et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70°C. Alimentation 9-57VDC.
SWMD-7512-H-8GPS-4SFPP	Switch Ethernet Durcis, montage rail-din. 8x10/100/1000BTX RJ45 POE 802.3af/at et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70°C. Alimentation 45-57VDC pour mode 802.3af et 51-57VDC pour mode 802.3at.
SWMD-7512-H-4GPS4SFP-4SFPP	Switch Ethernet Durcis, montage rail-din. 4x10/100/1000BTX RJ45 POE 802.3af/at, 4x100/1000FX SFP et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70°C. Alimentation 45-57VDC pour mode 802.3af et 51-57VDC pour mode 802.3at.
SWMD-7516-H-12TGX-4SFPP	Switch Ethernet Durcis, montage rail-din. 12 x 10/100/1000BTX RJ45 et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70°C. Alimentation 9-57VDC
SWMD-7516-H-8TGX4SFP-4SFPP	Switch Ethernet Durcis, montage rail-din. 8 x 10/100/1000BTX RJ45, 4x100/1000FX SFP et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70°C. Alimentation 9-57VDC.
SWMD-7516-H-4TGX8SFP-4SFPP	Switch Ethernet Durcis, montage rail-din. 4 x 10/100/1000BTX RJ45, 8x100/1000FX SFP et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70°C. Alimentation 9-57VDC.
SWMD-7516-H-12SFP-4SFPP	Switch Ethernet Durcis, montage rail-din. 12x100/1000FX SFP et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70°C. Alimentation 9-57VDC
SWMD-7516-H-4TGX8GPS-4SFPP	Switch Ethernet Durcis, montage rail-din. 4x10/100/1000BTX RJ45, 8x10/100/1000BTX RJ45 POE 802.3af/at et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70°C. Alimentation 45-57VDC pour mode 802.3af et 51-57VDC pour mode 802.3at.
SWMD-7516-H-8GPS4SFP-4SFPP	Switch Ethernet Durcis, montage rail-din. 8x10/100/1000BTX RJ45 POE 802.3af/at, 4x100/1000FX SFP et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70°C. Alimentation 45-57VDC pour mode 802.3af et 51-57VDC pour mode 802.3at.



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## Ordering information

Model	Description
SWMD-7520-H-16TGX-4SFPP	Switch Ethernet Durcis, montage rail-din. 16 x 10/100/1000BTX RJ45 et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70 °C. Alimentation 9-57VDC
SWMD-7520-H-12TGX4SFP-4SFPP	Switch Ethernet Durcis, montage rail-din. 12 x 10/100/1000BTX RJ45, 4x100/1000FX SFP et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70 °C. Alimentation 9-57VDC.
SWMD-7520-H-8TGX8SFP-4SFPP	Switch Ethernet Durcis, montage rail-din. 8x10/100/1000BTX RJ45, 8x100/1000FX SFP et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70 °C. Alimentation 9-57VDC.
SWMD-7520-H-4TGX12SFP-4SFPP	Switch Ethernet Durcis, montage rail-din. 4x10/100/1000BTX RJ45, 12x100/1000FX SFP et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70 °C. Alimentation 9-57VDC.
SWMD-7520-H-8TGX8GPS-4SFPP	Switch Ethernet Durcis, montage rail-din. 8x10/100/1000BTX RJ45, 8x10/100/1000BTX RJ45 POE 802.3af/at et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70 °C. Alimentation 45-57VDC pour mode 802.3af et 51-57VDC pour mode 802.3at.
SWMD-7520-H-4TGX8GPS4SFP-4SFPP	Switch Ethernet Durcis, montage rail-din. 4x10/100/1000BTX RJ45, 8x10/100/1000BTX RJ45 POE 802.3af/at, 4x100/1000FX SFP et 4x1G/10GE SFP. IEEE 1588 v2. -40 à +70 °C. Alimentation 45-57VDC pour mode 802.3af et 51-57VDC pour mode 802.3at
Accessories	Description
SWM75D-WMK-450-BLACK	Kit de montage mural en aluminium, noir. Pour modèle SWM75xx.
SWM75D-RJDB9	Câble console local RJ45 vers DB9 male, longueur 90cm



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