MS4128 / PowerMICE Obsolescence and Product Migration

Layer 2

MS4128-L2P	943 009-102 ----->	MSP30-24040SCY999HHE2A
MS4128-L2P ATEX	943 009-101 ----->	MSP30-24040SCWY99HHE2A
MS4128-L2P EEC	943 009-103 ----->	MSP30-24040TCWY99HHE2A

Layer 3

MS4128-L3E	943 009-202 ----->	MSP30-24040SCY9URHHE3A
MS4128-L3E ATEX	943 009-201 ----->	MSP30-24040SCWYURHHE3A
MS4128-L3E EEC	943 009-203 ----->	MSP30-24040TCY9URHHE3A
MS4128-L3P	943 009-302 ----->	MSP30-24040SCY9MRHHE3A
MS4128-L3P ATEX	943 009-301 ----->	MSP30-24040SCWYMRHHE3A
MS4128-L3P EEC	943 009-303 ----->	MSP30-24040TCY9MRHHE3A

Note:

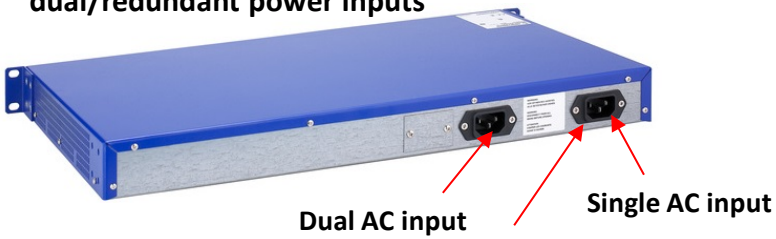
- *Above cross is to 7-slot MSP. Backplanes with fewer media module slots are available.*
- *MS20/30/4128 media modules are not compatible with the MSP's media modules*
- *The MSP Series has more configuration options, including number of media module slots, PoE and other approvals. Please use the configuration tool to ensure that the resulting cross/part meets the application.*

MACH102 Fanless Fixed & Modular Rack Mount Switches

All MACH102 models have 2x Gig RJ45/SFP combo ports

- SFP sockets accept 100 and Gig SFPs
- RJ45 ports are 10/100/1000 Mbit/s

"R" in part number suffix adds dual/redundant power inputs



Redundant on left, standard on right

Fixed Port Switches (-F and -FR)

MACH102-8TP-F **943 969-201**
Fixed, not modular w/ continuous front plate, 8x 10/100 RJ45 + 2x Gig RJ45/SFP combo ports (SFP socket supports 100 or Gig SFPs), **single** 100-240 VAC input

MACH102-8TP-FR **943 969-301**
Fixed, not modular w/ continuous front plate, 8x 10/100 RJ45 + 2x Gig RJ45/SFP combo ports (SFP socket supports 100 or Gig SFPs), **dual** 100-240 VAC input

MACH102-24TP-F **943 969-401**
Fixed, not modular w/ continuous front plate, 24x 10/100 RJ45 + 2x Gig RJ45/SFP combo ports (SFP socket supports 100 or Gig SFPs), **single** 100-240 VAC input

MACH102-24TP-FR **943 969-501**
Fixed, not modular w/ continuous front plate, 8x 10/100 RJ45 + 2x Gig RJ45/SFP combo ports (SFP socket supports 100 or Gig SFPs), **dual** 100-240 VAC input

MACH102 switches with -F are not modular. Those with –R have redundant power inputs

Modular Port Switch Chassis

MACH102-8TP **943 969-001**
Modular w/ 2x slots for media modules with cover plates included, 8x 10/100 RJ45 + 2x Gig RJ45/SFP combo ports (SFP socket supports 100 or Gig SFPs), **single** 100-240 VAC input

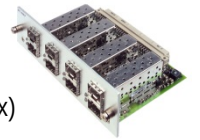
MACH102-8TP-R **943 969-101**
Modular w/ 2x slots for media modules with cover plates included, 8x 10/100 RJ45 + 2x Gig RJ45/SFP combo ports (SFP socket supports 100 or Gig SFPs), **dual** 100-240 VAC input

Media Expansion Modules

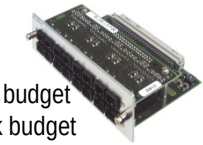
For modular (non-F) versions

M1-8TP-RJ45-PoE **942 028-001**
8x PoE / PoE+
If PoE+ is used, only 4 Ports will be supported due to 120W limitation per expansion module.
Module requires separate external 48VDC power supply (46 - 57VDC), >50VDC for PoE+.

M1-8TP-RJ45 **943 970-001**
8x 10/100 BASE-TX



M1-8SFP **943 970-301**
8x empty 100BASE-FX SFP sockets
Distance see SFP transceivers (M-FAST SFP-xx)



M1-8MM-SC **943 970-101**
8x multimode100BASE-FX, SC socket
Distance MM (50/125µm): 0-5000m, 11 dB link budget
MM (62.5/125µm): 0-4000m, 8 dB link budget

M1-8SM-SC **943 970-201**
8x singlemode 100BASE-FX, SC socket
Distance SM (9/125µm): 0-32.5km, 16 dB link budget

MACH104 All-Gig Rack Mount Switches – L2, L3 and PoE / PoE+

24x Gigabit (4 are Combo)

MACH104-20TX-F 942 003-001

MACH104-20TX-F-L3P 942 003-002

- 4x Gig RJ45/SFP combo ports (SFP socket supports 100 or Gig SFPs) + 20x GE RJ45, single 100-240 VAC input

MACH104-20TX-FR 942 003-101

MACH104-20TX-FR-L3P 942 003-102

- 4x Gig RJ45/SFP combo ports (SFP socket supports 100 or Gig SFPs) + 20x GE RJ45, dual 100-240 VAC input

20x Gigabit (4 are Combo) and 4x Gigabit PoE

MACH104-20TX-F-4PoE 942 003-201

MACH104-20TX-F-4PoE-L3P 942 003-202

- 4x Gig RJ45/SFP combo ports (SFP socket supports 100 or Gig SFPs) + 20x GE RJ45 (four of which are PoE, IEEE 802.3af).
- PoE power supply integrated, single 100-240 VAC input

16x PoE /PoE+

MACH104-16TX-PoEP 942 030-001

MACH 104-16TX-PoEP-L3P 942 030-002

- 4x Gig RJ45/SFP combo ports (SFP socket supports 100 or Gig SFPs) + 16x GE PoE/PoE+ RJ45.
- PoE / PoE+ power supply integrated, single 100-240 VAC input (fan inside the power supply)

MACH104-16TX-PoEP-R 942 026-001

MACH104-16TX-PoEP-R-L3P 942 026-002

- 4x Gig RJ45/SFP combo ports (SFP socket supports 100 or Gig SFPs) + 16x GE PoE/PoE+ RJ45.
- PoE / PoE+ power supply integrated, dual load-sharing 100-240 VAC inputs (fan inside the power supply)

MACH104-16TX-PoEP-E **942 027-001**

MACH104-16TX-PoEP-E-L3P **942 027-002**

- 4x Gig RJ45/SFP combo ports (SFP socket supports 100 or Gig SFPs) + 16x GE PoE/PoE+ RJ45.
- Fanless, but requires external 48VDC (44-57VDC) for PoE or 54VDC (52-57VDC) if using any PoE+

16x PoE /PoE+ and 2x 10 Gig

MACH104-16TX-PoEP+2X 942 031-001

MACH104-16TX-PoEP+2X-L3P 942 031-002

- 2x 10Gig XFP + 4x Gig RJ45/SFP combo ports (SFP socket supports 100 or Gig SFPs) + 16x GE PoE/PoE+ RJ45.
- PoE / PoE+ power supply integrated, single 100-240 VAC input (fan inside the power supply)

MACH104-16TX-PoEP+2X-R 942 033-001

MACH104-16TX-PoEP+2X-R-L3P 942 033-002

- 2x 10Gig XFP + 4x Gig RJ45/SFP combo ports (SFP socket supports 100 or Gig SFPs) + 16x GE PoE/PoE+ RJ45.
- PoE / PoE+ power supply integrated, dual load-sharing 100-240 VAC inputs (fan inside the power supply)

MACH104-16TX-PoEP+2X-E 942 032-001

MACH104-16TX-PoEP+2X-E-L3P 942 032-002

- 2x 10Gig XFP + 4x Gig RJ45/SFP combo ports (SFP socket supports 100 or Gig SFPs) + 16x GE PoE/PoE+ RJ45.
- Fanless, but requires external 48VDC (44-57VDC) for PoE or 54VDC (52-57VDC) if using any PoE+

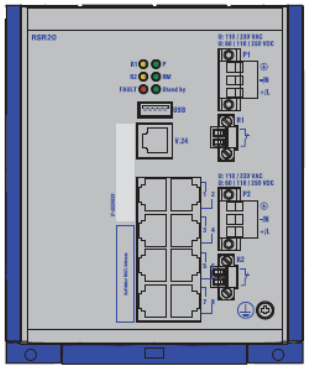
NOTE: MACH104-16TX-PoEP…. Maximum number of Powered Devices (PDs)

- PoE / IEEE 802.3af – 16 × PD class 0 (15.4 W)
- PoE+ / IEEE 802.3at – 8 × PD class 4 (30 W)
- Mixed PoE / PoE+ - Maximum of 240W
- For even heat dissipation, it is recommend to distribute the PoE power equally between the two port groups (ports 5 to 12 and ports 13 to 20).

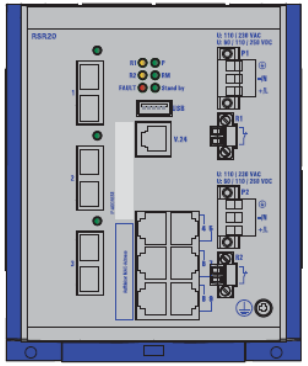
MACH104-16TX-PoEP+2X….

MACH104-16TX-PoEP….

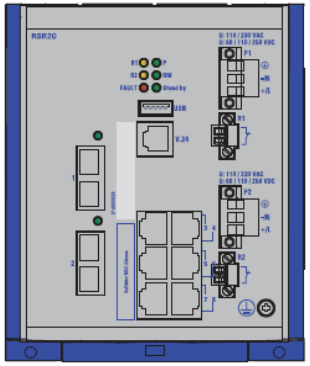
RSR Über-Rugged™ DIN Rail Mount Switches



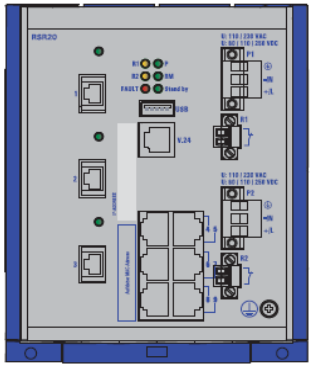
RSR20 08 00 T1T1T1
8x 10/100BASE-TX(RJ45)



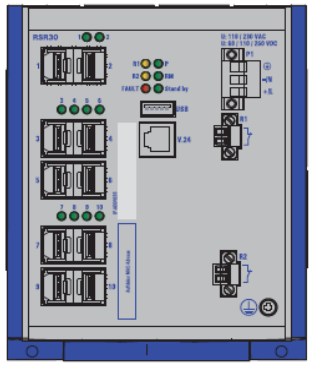
RSR20 09 00 MMM2T1
3x 100BASE-FX(SC)
6x 10/100BASE-TX(RJ45)



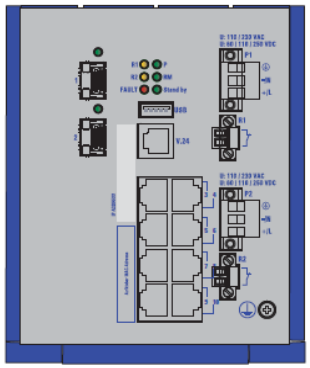
RSR20 08 00 M2M2T1
2x 100BASE-FX(SC)
6x 10/100BASE-TX(RJ45)



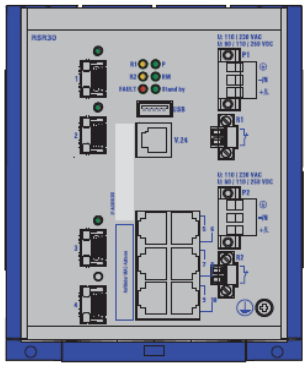
RSR20 09 00 JJM3T1
3x 100BASE-FX(MTRJ)
6x 10/100BASE-TX(RJ45)



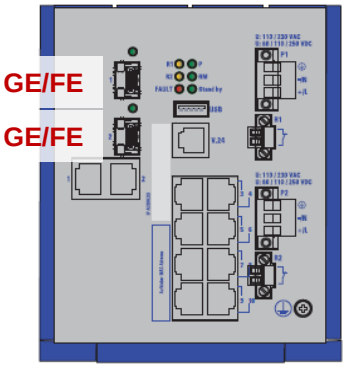
RSR30 07 03 00 06 Z6
3x SFP slot (GE)
7x SFP slot (FE)



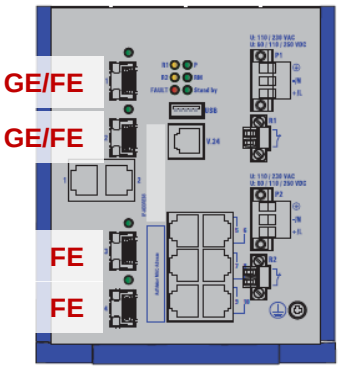
RSR30 08 02 06 06 T1
2x SFP slot (GE)
8x 10/100BASE-TX(RJ45)



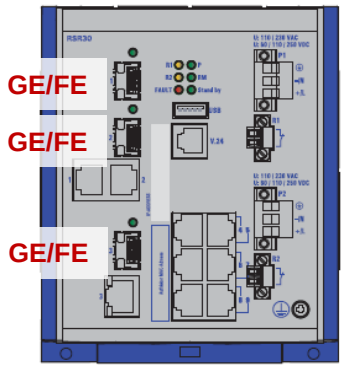
RSR30 08 02 00ZZT1
2x SFP slot (GE)
2x SFP slot (FE)
6x 10/100BASE-TX(RJ45)



RSR30 08 02 0707T1
2x GE/FE RJ45/SFP Combo port
8x 10/100BASE-TX(RJ45)



RSR30 08 02 CCZZT1
2x GE/FE RJ45/SFP Combo port
2x SFP slot (FE)
6x 10/100BASE-TX(RJ45)



RSR30 06 03 CC07T1
3x GE/FE RJ45/SFP Combo port
6x 10/100BASE-TX(RJ45)

Note: All combo ports support GE and FE SFPs

RSR Configuration

RSR20	-								H	P	H	H	xx.x
1. Product		3. 10/100 Mbit/s ports	4. 10/100/1000 Mbit/s ports	5. Uplink port 1 configuration	6. Uplink port 2 configuration	7. Temperature range	8. Voltage range 1	9. Voltage range 2	10. Approvals	11. Software version	12. Confi-guration	13. OEM type	14. SW release

1. Design

- RSR20 All ports 100 Mbit/s max
- RSR30 Up to 3x Gig uplink ports

3. FE Ports

- 06 – 6x 100 Mbit/s (RSR30)
- 07 – 7x 100 Mbit/s (RSR30)
- 08 – 8x 100 Mbit/s (RSR20,RSR30)
- 09 – 9x 100 Mbit/s (RSR20)

4. GE Ports

- 00 – 0x 1000 Mbit/s (RSR20)
- 02 – 2x 1000 Mbit/s (RSR30)
- 03 – 3x 1000 Mbit/s (RSR30)

5. Ports Type - 1. Uplink

- CC – 2x Combo Port Gigabit
- 00 – 2x SFP Slot Gigabit
- TT – 2x Twisted Pair (RJ45)
- MM – 2x Multimode (D-SC)
- JJ – 2x Multimode (MTRJ)
- NN – 2x Multimode (BFOC/ST)
- VV – 2x Singlemode (D-SC)
- UU – 2x Singlemode (BFOC/ST)
- LL – 2x Singlemode Long Haul (D-SC)
- GG – 2x Singlemode Long Haul+ (D-SC)
- ZZ – 2x SFP Slot (100 Mbit/s)
- 07 – Combo port (1000 Mbit/s)
- 06 – SFP slot (1000 Mbit/s)
- T1 – Twisted Pair (RJ45)
- M2 – Multimode (D-SC)
- M3 – Multimode (MTRJ)
- M4 – Multimode (BFOC/ST)
- S2 – Singlemode (D-SC)
- S4 – Singlemode (BFOC/ST)
- L2 – Singlemode Long Haul (D-SC)
- G2 – Singlemode Long Haul+ (D-SC)
- Z6 – SFP slot (100 Mbit)

Not all options are possible in all RSR types

6. Ports Type - 2. Uplink

ZZ I 07 I 06 I T1 I M2 I M3 I M4 I S2 I S4 I L2 I G2 I Z6

Configurator

7. Temp Rating

- S Standard (0-60 deg C)
- U Extended (-40 to +85 deg C)
- F Extended (U-rating and conformal coating)

8. Voltage 1

- C 24/36/48 V DC
- K 60/120/250 V DC 110/230 V AC

9. Voltage 2

- 9 Empty / Not Added
- C 24/36/48 V DC
- K 60/120/250 V DC 110/230 V AC

10. Approvals

- H UL508;GL, IEC 61850-3, IEEE1613, EN50121-4

11. OS Type

- P Professional

12. Configuration

- H Hirschmann

13. OEM type

- H Hirschmann

14. OS release

- xx.x Newest software

MACH1000 Über-Rugged™ Rack-Mount Switches

MAR1020-99 TT … Max. 24 ports 10/100 Mbit/s

MAR1030-CC TT …
Max. 24 ports 10/100 Mbit/s
+ 2 ports FE/GE (Combo SFP/RJ45)

MAR1030-4O TT …
Max. 24 ports 10/100 Mbit/s
+ 4 ports GE (SFP); 1000 Mbit/s

MAR1030-OT TT …
Max. 24 ports 10/100 Mbit/s
+ 2 ports GE (SFP) + 2 ports 10/100/1000 Mbit/s (RJ45)

MAR1030-4T TT …
Max. 24 ports 10/100 Mbit/s
+ 4 ports 10/100/1000 Mbit/s (RJ45)

MAR1022-99 TT …
Max. 24 ports 10/100 Mbit/s
incl. 4 ports PoE (RJ45)

MAR1032-CC TT …
Max. 24 ports 10/100 Mbit/s
incl. 4 ports PoE + 2 ports FE/GE (Combo SFP/RJ45)

MAR1120-99 TT …
Rear: Max. 20 ports 10/100 Mbit/s
Front: 1 „service“ port (10/100Base-TX; RJ45)

MAR1130-4T TT …
Rear: Max. 20 ports 10/100 Mbit/s
+ 2/4 ports GE (div. variation)
Front: 1 „service“ port in the front (10/100Base-TX; RJ45)

MACH1000 (1020 / 1030) Configuration

MAR1xxx				P	H	H	xx.x
1. Chassis Type	2. GE Ports	3. – 14. Media ports	15. Temp. range	16. Voltage 1	17. Voltage 2	18. Approvals	19. OS Type	20. Config	13. OEM type	14. OS Ver.

1. Chassis type

MAR1020	Fast Ethernet
MAR1030	Gigabit Ethernet
MAR1022	Fast Ethernet with PoE
MAR1032	Gigabit Ethernet with PoE
MAR1120	Fast Ethernet - Ports rear
MAR1130	Gigabit Ethernet - Ports rear
MAR1122	Fast Ethernet with PoE - Ports front
MAR1132	Gigabit Ethernet with PoE - Ports front

Configurator

2. GE ports

Only MACH103x

CC	2x FE/GE SFP/RJ45 Combo ports
4O	4x GE SFP; 1000 Mbit/s
4T	4x 10/100/1000 Mbit/s; RJ45
OT	2x GE SFP and 2x 10/100/1000 Mbit/s; RJ45
99	No Gigabit/empty (only possible in MAR102x)

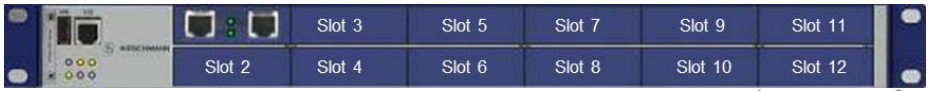
3. – 14. FE ports

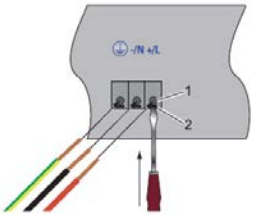
12 slots. Each slot has two ports of same type. Any mix permitted. Empty ports have to be located at the end of the port sequence.

TT	2x Twisted Pair, 10/100 Mbit/s; RJ45
MM	2x Multimode , 100 Mbit/s; SC
JJ	2x Multimode , 100 Mbit/s; MTRJ
NN	2x Multimode , 100 Mbit/s; ST
BB	2x Multimode , 100 Mbit/s; LC
VV	2x Singlemode , 100 Mbit/s; SC
UU	2x Singlemode , 100 Mbit/s; ST
LL	2x Singlemode LH , 100 Mbit/s; SC
GG	2x Singlemode LH+ , 100 Mbit/s; SC
ZZ	2x SFP slot , 100 Mbit/s; SFP
FF	2x Multimode , 10 Mbit/s; ST
RR	2x Twisted Pair , 100 Mbit/s; M12
PP	Not populated / Empty

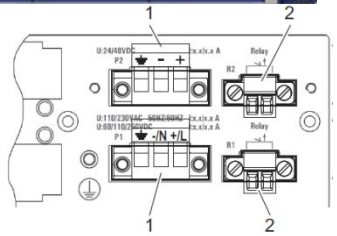
15. Temp. range

S	Standard 0°C ... +60°C
U	Extended -40°C ... +85°C
F	Extended -40°C ... +85°C including Corformal Coating





Example of C and G spring clip (left) and pluggable terminal plug L and M (right)



16. Voltage 1

C	24/36/48 VDC – spring clip
G	110/250 VDC and 110/230 VAC – spring clip
L	24/36/48 VDC - power plug
M	110/250 VDC and 110/230 VAC – pwr plug

17. Operating voltage 2

!	Same selection as above. Connector type must match, voltage can be different.
9	Not populated / Empty

18. Approvals

H	UL508; UL1604 Class 1 Div2; GL, IEC 61850-3, IEEE1613, EN50121-4; NEMA TS
T	EN50155

19. OS Type

P	Professional

20. Configuration

H	Hirschmann

21. OEM type

H	Hirschmann

22. OS Version

xx.x	Newest software

MACH4000 Backbone Switch

10 Gigabit Ethernet

Max: 48x GE + 3x 10 GE

MACH 4002 – 48G+3X-L2P	943 878-101
MACH 4002 – 48G+3X-L3E	943 878-201
MACH 4002 – 48G+3X-L3P	943 878-301

Base chassis: 3 XFP sockets + 16 TP-ports

Max: 24x GE + 3x 10 GE

MACH 4002 – 24G+3X-L2P	943 915-101
MACH 4002 – 24G+3X-L3E	943 915-201
MACH 4002 – 24G+3X-L3P	943 915-301

Base chassis: 3 XFP sockets + 8 TP-ports

Gigabit Ethernet

Maximum ports: 48x GE

MACH 4002 – 48G-L2P	943 911-101
MACH 4002 – 48G-L3E	943 911-201
MACH 4002 – 48G-L3P	943 911-301

Base chassis: 8 combo- + 8 TP-ports

Max: 24x GE

MACH 4002 – 24G-L2P	943 916-101
MACH 4002 – 24G-L3E	943 916-201
MACH 4002 – 24G-L3P	943 916-301

Base chassis: 8 combo ports

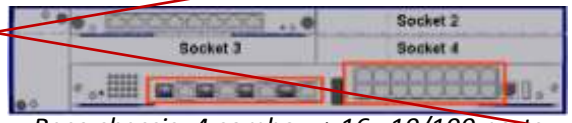
~~Fast Ethernet~~

EOL

Refer customers to MACH 4002-48G

Max: 48 FE + 4x GE

MACH 4002 – 48+4G-L2P	943 859-101
MACH 4002 – 48+4G-L3E	943 859-201
MACH 4002 – 48+4G-L3P	943 859-301



Base chassis: 4 combo- + 16x 10/100 ports

Plug-in power supply for MACH4002-chassis

M4-S-AC/DC 300W **943 870-001**
operating voltage: 100-240V AC / 120-350V DC

M4-S-24VDC 300W **943 871-001**
operating voltage: 19-32V DC, max 15A

M4-S-48VDC 300W **943 872-001**
operating voltage: 38-72V DC, max 8A

Optional external power

M4-POWER Chassis **943 874-001**
19“ rack-mount chassis

M4-P-AC/DC 300W **943 875-001**
Operating voltage: 100-240V AC, 129-350V DC

M4-P-24VDC 300W **943 876-001**
Operating voltage: 24V DC (19V – 32V)

M4-P-48VDC 300W **943 877-001**
Operating voltage: 48V DC (38V – 72V)

MACH4000 Media Modules

M4-8TP-RJ45 943 863-001

- 8x 10/100/1000MBit/s RJ45 sockets
- AutoNeg, AutoCrossing, Cable Diagnostic
- 10/100MBit/s with MACH 4002 - 48+4G

M4-FAST 8TP-RJ45-PoE 943 873-001

- 8x 10/100MBit/s RJ45 sockets
- PoE is provided over pairs 1-2, 3-6

M4-FAST 8-SFP 943 864-001

- 8x FE SFP sockets

M4-GIGA 8-SFP 943 879-001

- 8x GE/FE SFP sockets
- Not for use in the MACH 4002-48+4G

MACH 4000 basic device	Maximum port number				Number of installed ports (basic board)				Maximum number of media modules		Max. PoE power
	TP ports 10/100 Mbit/s	TP ports 10/100 1000 Mbit/s	Combo ports TP/SFP 10/100 1000 Mbit/s	XFP slots 10 Gbit/s	TP ports 10/100 Mbit/s	TP ports 10/100 1000 Mbit/s	Combo ports TP/SFP 10/100 1000 Mbit/s	XFP slots 10 Gbit/s	10/100 Mbit/s	10/100 1000 Mbit/s	
MACH 4002-48+4G	48	4	4	-	16	-	4 [1)]	-	4 [3)]	-	137 W
MACH 4002-24G	-	24	8	-	-	-	8 [2)]	-	-	2	163 W
MACH 4002-48G	-	48	8	-	-	8	8 [2)]	-	-	4	110 W
MACH 4002-24G+3X	-	24	-	3	-	8	-	3	-	2	157 W
MACH 4002-48G+3X	-	48	-	3	-	16	-	3	-	4	106 W

[1)] SFP 1000 Mbit/s

[2)] SFP 100/1000 Mbit/s

[3)] M4-8TP RJ45, M4-8TP RJ45-PoE or M4-FAST 8-SFP

OpenOCTOPUS OS20 / OS30

OCTOPUS 16M (943 912-001)
managed ruggedized IP67-Switch 16 TX,
Approvals: E1, DIN 5510-2, NF F 16-101, NF F 16-102, GL

OCTOPUS 16M Train (943 984-001)
managed ruggedized IP67-Switch 16 TX,
Approvals: EN 50155, EN 50121-4, DIN 5510-2, NF F 16-101, NF F 16-102

OCTOPUS 16M 8PoE (943 960-001)
managed ruggedized IP67-Switch 16 TX, including 8 ports PoE
Approvals: EN50155

OCTOPUS 24M (943 923-001)
managed ruggedized IP67-Switch 24 TX,
Approvals: E1, DIN 5510-2, NF F 16-101, NF F 16-102, GL

OCTOPUS 24M Train (943 985-001)
managed ruggedized IP67-Switch 24 TX,
Approvals: EN 50155, EN 50121-4, DIN 5510-2, NF F 16-101, NF F 16-102

OCTOPUS 24M Train-BP (943 093-001)
managed ruggedized IP67-Switch 24 TX, including 2 Bypass Relais
EN 50155, EN 50121-4, DIN 5510-2, NF F 16-101, NF F 16-102

OCTOPUS 24M-8PoE (943 063-001)
managed ruggedized IP67-Switch 24 TX, including 8 ports PoE
Approvals: E1, EN 50155, EN 50121-4, DIN 5510-2, NF F 16-101, NF F 16-102

OCTOPUS 8M (943 931-001)
managed ruggedized IP67-Switch 8 TX,
Approvals: E1, DIN 5510-2, NF F 16-101, NF F 16-102, GL

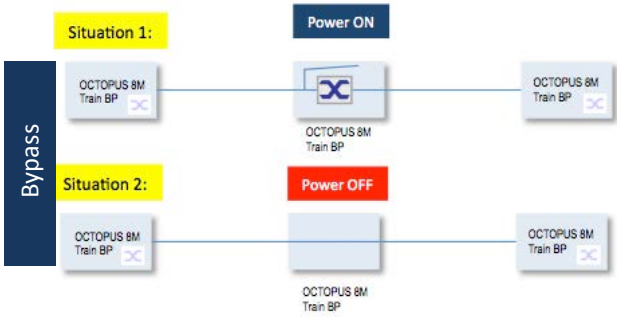
OCTOPUS 8M Train (943 983-001)
managed ruggedized IP67-Switch 8 TX,
Approvals: EN 50155, EN 50121-4, DIN 5510-2, NF F 16-101, NF F 16-102

OCTOPUS 8M –Train-BP (943 091-001)
managed ruggedized IP67-Switch 8 TX, including 2 Bypass Relais
Approvals: EN 50155, EN 50121-4, DIN 5510-2, NF F 16-101, NF F 16-102

OCTOPUS 8M - 6PoE (943 967-101)
managed ruggedized IP67-Switch 8 TX, including 6 ports PoE
Approvals: EN50155

OCTOPUS 8M -8PoE (943 967-001)
managed ruggedized IP67-Switch 8 TX, including 8 ports PoE
Approvals: EN50155

Product Code	Product Name		Power supply	Ports	FE
943892001	OCTOPUS 5TX EEC	Unmanaged	9,6V - 32V	5-port	5 Cu
943931001	OCTOPUS 8M	Managed	9,6V - 60V	8-port	8 Cu
943983001	OCTOPUS 8M Train	Managed	9,6V - 60V	8-port	8 Cu
943967101	OCTOPUS 8M-6PoE	Managed	48V	8-port	8 Cu
943967001	OCTOPUS 8M-8PoE	Managed	48V	8-port	8 Cu
942091001	OCTOPUS 8M-Train-BP	Managed	9,6V - 60V	8-port	8 Cu
943912001	OCTOPUS 16M	Managed	9,6V - 60V	16-port	16 Cu
943984001	OCTOPUS 16M Train	Managed	9,6V - 60V	16-port	16 Cu
943960001	OCTOPUS 16M-8PoE	Managed	48V	16-port	16 Cu
942092001	OCTOPUS 16M-Train-BP	Managed	9,6V - 60V	16-port	16 Cu
943923001	OCTOPUS 24M	Managed	9,6V - 60V	24-port	24 Cu
943985001	OCTOPUS 24M Train	Managed	9,6V - 60V	24-port	24 Cu
942063001	OCTOPUS 24M-8PoE	Managed	48V	24-port	24 Cu
942093001	OCTOPUS 24M-Train-BP	Managed	9,6V - 60V	24-port	24 Cu



OpenOCTOPUS OS20 / OS30

OCTOPUS OS24-080900T5T5TFFB (942 025-007)
managed ruggedized IP67-Switch 9 TX,
including 8 ports PoE
Approvals: E1, EN 50155, EN 50121-4, DIN 5510-2, NF F 16-101, NF F 16-102

OCTOPUS OS24-080900T5T5TNEB (942 025-008)
managed ruggedized IP67-Switch 9 TX,
including 8 ports PoE
Approvals: EN 50155, EN 50121-4, DIN 5510-2, NF F 16-101, NF F 16-102

OCTOPUS OS24-081000T5T5TFFU (942 025-003)
unmanaged ruggedized IP54-Switch 10 TX,
including 8 ports PoE
Approvals: E1, EN 50155, EN 50121-4, DIN 5510-2, NF F 16-101, NF F 16-102

OCTOPUS OS24-081000T5T5TFNEU (942 025-004)
unmanaged ruggedized IP54-Switch 10 TX,
including 8 ports PoE
Approvals: EN 50155, EN 50121-4, DIN 5510-2, NF F 16-101, NF F 16-102

OCTOPUS OS20-0010001M1MTREP (943 988-001)
managed ruggedized IP67-Switch 8 TX, 2 FX-MM,
Approvals: E1, EN50155

OCTOPUS OS20-0010001S1STREP (943 988-002)
managed ruggedized IP67-Switch 8 TX, 2 FX-SM,
Approvals: E1, EN50155

OCTOPUS OS20-0010004M4MTREP (943 988-003)
managed ruggedized IP67-Switch 8 TX, 2 FX-SM,
Approvals: E1, EN50155

OCTOPUS OS20-0010004S4STREP (943 988-004)
managed ruggedized IP67-Switch 8 TX, 2 FX-SM,
Approvals: E1, EN50155

Accessory

OCTOPUS Dust cap (942 057-001; 25 pieces)

Variant 1 and 4 IEC 61076-3-106 connectors are not sold by Belden and need to be sourced via third party , such as Metz Connect.
See parts and link below.

Var 1 plug/shell (EtherNet/IP)	1401015000ME
Var 4 plug/shell (Profinet)	14010850F0ME
Duplex LC insert (multimode)	1402800820-I
Duplex LC insert (singlemode)	1402900820-I

http://www.metz-connect.com/us/productsearch/E-DAT%20Industry%20IP67%20V1

02	2 * 1000 Mbit/s Ethernet
1M	M-FAST SFP-MM / LC / EEC / variant 1
1S	M-FAST SFP-SM / LC / EEC / variant 1
1P	M-FAST SFP-SM+ / LC / EEC / variant 1
1L	M-FAST SFP-LH / LC / EEC / variant 1
1A	M-SFP-SX / LC / EEC / variant 1
1B	M-SFP-LX / LC / EEC / variant 1
1C	M-SFP-LH / LC / EEC / variant 1
1D	M-SFP-LH+ / LC / EEC / variant 1
4M	M-FAST SFP-MM / LC / EEC / variant 4
4S	M-FAST SFP-SM / LC / EEC / variant 4
4P	M-FAST SFP-SM+ / LC / EEC / variant 4
4L	M-FAST SFP-LH / LC / EEC / variant 4
4A	M-SFP-SX / LC / EEC / variant 4
4B	M-SFP-LX / LC / EEC / variant 4
4C	M-SFP-LH / LC / EEC / variant 4
4D	M-SFP-LH+ / LC / EEC / variant 4

Optical ports variant 1

EtherNet/IP

IEC 61076-3-106 variant 1	Multimode fibre	Singlemode fibre
Fast Ethernet	FO link up to 4 km 943 988-001	FO link up to 22 km 943 988-002
Gigabit Ethernet	FO link up to 550m 943 988-005	FO link up to17 km 943 988-006

Optical ports variant 4

PROFINET

IEC 61076-3-106 variante 4	Multimode fibre	Singlemode fibre
Fast Ethernet	FO link up to 4 km 943 988-003	FO link up to 22 km 943 988-004
Gigabit Ethernet	FO link up to 550m 943 988-007	FO link up to 17 km 943 988-008

OpenOCTOPUS OS20 / OS30

OCTOPUS OS20-000900T5T5TAFB (942 025-005)
managed ruggedized IP67-Switch 9 TX,
Approvals: E1, EN 50155, EN 50121-4, DIN 5510-2, NF F 16-101, NF F 16-102

OCTOPUS OS20-001000T5T5TAFU (942 025-001)
unmanaged ruggedized IP54-Switch 10 TX
Approvals: EN 50155, EN 50121-4, DIN 5510-2,
NF F 16-101, NF F 16-102

OCTOPUS OS30-0008021A1ATREP (943 988-005)
managed ruggedized IP67-Switch 8 TX, 2FX-MM (Gigabit)
Approvals: E1, EN50155

OCTOPUS OS30-0008021B1BTREP (943 988-006)
managed ruggedized IP67-Switch 8 TX, 2FX-SM (Gigabit)
Approvals: E1, EN50155

OCTOPUS OS30-0008024A4ATREP (943 988-007)
managed ruggedized IP67-Switch 8 TX, 2FX-MM (Gigabit)
Approvals: E1, EN50155

OCTOPUS OS30-0008024B4BTREP (943 988-008)
managed ruggedized IP67-Switch 8 TX, 2FX-SM (Gigabit)
Approvals: E1, EN50155

OCTOPUS OS32-080802T6T6TPEP (942 069-002)
managed ruggedized IP65, IP67-Switch 10 TX,
including 8 ports PoE (10/100 Mbit/s), M12 „D“ coding,
2x 1000 Mbit/s M12 „X“-coding
Approvals: CE, C-Tick, GOST-R, EN 50155

OCTOPUS OS32-081602T6T6TPEP (942 069-001)
managed ruggedized IP65, IP67-Switch 18 TX,
including 8 ports PoE (10/100 Mbit/s), M12 „D“ coding
8 ports 10/100 Mbit/s, M12 „D“ coding
2x 1000 Mbit/s, M12 „X“-coding
Approvals: CE, C-Tick, GOST-R, EN 50155

OCTOPUS OS32-0808020606TPEP (942 069-004)
managed ruggedized IP65, IP67-Switch 10 Ports
including 8 ports PoE, M12 „D“ coding,
2 ports 1000BASE-SFP sockets
Approvals: CE, C-Tick, GOST-R, EN 50155

OCTOPUS OS32-0816020606TPEP (942 069-003)
managed ruggedized IP54-Switch 18 Ports
including 8 ports PoE, M12 „D“ coding,
8 ports 10/100 Mbit/s, M12 „D“ coding
2 ports 1000BASE-SFP sockets
Approvals: CE, C-Tick, GOST-R, EN 50155