

## MACH100 19" Industrial Workgroup Rack-Mount Switches



### Fast Ethernet Uplink Ports, Gigabit Ethernet Uplink Ports, and 10 Gigabit Uplink Ports

The MACH100 series of switches are offered in versions with 8, 20, or 24 permanently installed 10/100 Mbit/s RJ45 Ethernet ports, or as modular switches with 8 permanent ports and slots for 2 additional 8-port media modules that are hot-swappable. All versions offer RJ45/SFP combo ports for connection to the network backbone. An all-Gigabit version with 24 10/100/1000 ports is also available.

The MACH104-16TX-PoEP models offer 16 TX ports that support PoE and PoE Plus. Versions of this switch are also available with two 10-Gigabit XFP uplinks or a redundant power supply as well as a fanless variant with an external power supply unit.



### Technical Information

Product Description				
Type	MACH102 Series 102-8TP-x	MACH102 Series 102-24TP-x	MACH102 Series 104-20TX-x	MACH102 Series 104-16TX-PoEP-x
Available Ports	10–26	26	24	20–22
Construction				
Mounting	19" Control Cabinet			
Protection Class	IP20			
Dimensions (WxHxD)	448 x 44 x 310 mm			448 x 44 x 345 mm
Weight	appr. 3.75 kg	appr. 4 kg	appr. 4.4 kg	appr. 4.5 kg
Ambient Conditions				
Operating Temperature	0°C to +50°C			
Storage/Transport Temperature	-20°C to +85°C			
Relative Humidity (non-condensing)	10% to 95%			
Conformal Coating	n/a			
Interfaces				
V.24 Interface	1 x RJ11 Socket			
USB Interface	1 x USB (ACA21-USB Adapter)			
Power Requirements				
Operating Voltage	110 to 240 V AC			
PoE (802.3af) Ports Supported	Yes (variant applicable)			16 ports
PoE Plus (802.3at) Ports Supported	Yes (variant applicable)			8 ports
Regulatory Approvals				
Safety of Industrial Control Equipment	cUL508			Pending
Hazardous Locations	n/a			
Germanischer Lloyd	n/a			
Transportation	n/a			
Railway (norm)	n/a			
Substation	n/a			
Reliability				
MTBF Range	21.6 to 26.5 years	19.1 to 22.8 years	13.7 to 24 years	14.6 to 21.4 years
Warranty	5 years standard			

**NOTE:** These are the prominent technical specifications. For complete technical specifications visit: [www.hirschmann.com](http://www.hirschmann.com)



## MACH100 19" Industrial Workgroup Rack-Mount Switch Configurations

### Fast Ethernet Uplink Ports, Gigabit Ethernet Uplink Ports, and 10 Gigabit Uplink Ports

Modular: MACH100 Fast/Gigabit Industrial Workgroup Switches		
Part No.	Order No.	Ports/Functions
MACH102-8TP	943 969-001	8 x 10/100 BASE-TX RJ45 ports, 2 x GE combo ports (100 or 1000 Mbit/s SFPs) and 2 x 8 port media module slots
MACH102-8TP-R	943 969-101	Same as 943 969-001, but with redundant 110/220 V AC power supply



Fixed Ports: MACH100 Fast/Gigabit Industrial Workgroup Switches		
Part No.	Order No.	Ports/Functions
MACH102-8TP-F	943 969-201	8 x 10/100 BASE-TX RJ45 ports and 2 x GE combo ports (100 or 1000 Mbit/s SFPs)
MACH102-8TP-FR	943 969-301	Same as 943 969-201, but with redundant 110/220 V AC power supply
MACH102-24TP-F	943 969-401	24 x 10/100 BASE-TX RJ45 ports and 2 x GE combo ports (100 or 1000 Mbit/s SFPs)
MACH102-24TP-FR	943 969-501	Same as 943 969-401, but with redundant 110/220 V AC power supply

Fixed Ports: MACH100 Gigabit Industrial Workgroup Switches		
Part No.	Order No.	Ports/Functions
MACH104-20TX-F	942 003-001	20 x GE TX Ports, 4 x GE RJ45/SFP combo ports (100 or 1000 Mbit/s SFPs)
MACH104-20TX-FR	942 003-101	Same as 942 003-001, but with redundant power supply

Fixed Ports: MACH100 Gigabit Industrial Workgroup Switches with PoE		
Part No.	Order No.	Ports/Functions
MACH104-20TX-F-4PoE	942 003-201	Same as MACH104-20TX-F, 4 of the 20 10/100/1000 ports are 802.11af PoE

Fixed Ports: MACH100 Gigabit Industrial Workgroup Switches with PoE-Plus		
Part No.	Order No.	Ports/Functions
MACH104-16TX-PoEP	942 030-001	20 Ports in total; 16 x (10/100/1000 BASE-TX, RJ45) PoEPlus and 4 Gigabit Combo Ports (10/100/1000 BASE-TX, RJ45 or 100/1000 BASE-FX, SFP)
MACH104-16TX-PoEP -R	942 026-001	Same as MACH104-16TX-PoEP but with redundant power supply
MACH104-16TX-PoEP -E	942 027-001	Same as MACH104-16TX-PoEP but fanless without power supply
MACH104-16TX-PoEP +2X	942 031-001	22 Ports in total; 16 x (10/100/1000 BASE-TX, RJ45) PoEPlus and 4 Gigabit Combo Ports (10/100/1000 BASE-TX, RJ45 or 100/1000 BASE-FX, SFP) and 2 x 10GE XFP
MACH104-16TX-PoEP +2X -R	942 033-001	Same as MACH104-16TX-PoEP +2X but with redundant power supply
MACH104-16TX-PoEP +2X -E	942 032-001	Same as MACH104-16TX-PoEP +2X but fanless without power supply

Media Modules		
Part No.	Order No.	Ports/Functions
M1-8TP-RJ45	943 970-001	8 x 10/100BASE-TX, RJ45 media module
M1-8TP-RJ45 PoE	942 028-001	8 x 10/100BASE-TX, RJ45 media module PoEPlus
M1-8MM-SC	943 970-101	8 x 100BASE-FX MM, SC media module
M1-8SM-SC	943 970-201	8 x 100BASE-FX SM, SC media module
M1-8SFP	943 970-301	8 x 100BASE-X SFP media module



**NOTE:** SFPs need to be purchased separately.