

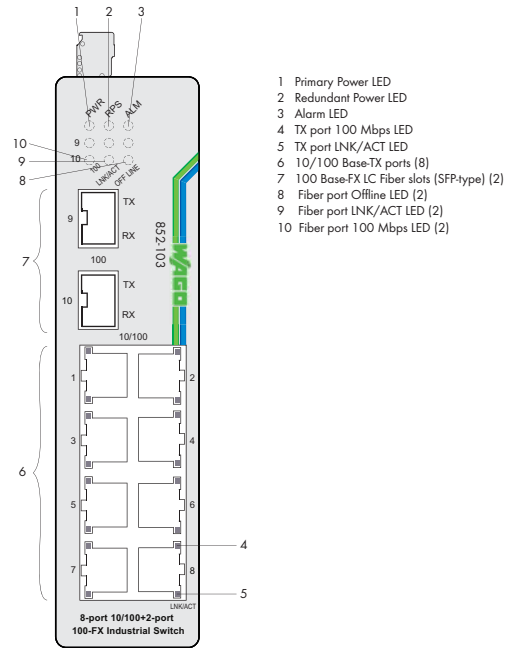
# 9



Industrial Switch, 5 Ports 100Base-TX	554
Industrial Switch, 8 Ports 100Base-TX	555
Industrial Switch, 8 Ports 100Base-TX, 2 Slots 100Base-FX	556
Industrial Managed Switch, 7 Ports 100Base-TX, 2 Slots 100Base-FX	557
Industrial Eco Switch, 5 Ports 100Base-TX	558
Industrial Eco Switch, 8 Ports 100Base-TX	559
SFP Module, 100Base-FX, LC	560







The 852-103 Industrial Switch is an 8-port 10/100Base-TX with dual SFP 100Base-FX port (SFP modules are optional) ETHERNET switch. The switch has a rugged housing, a redundant power supply and function monitoring with relay, making it ideal for a wide range of applications.

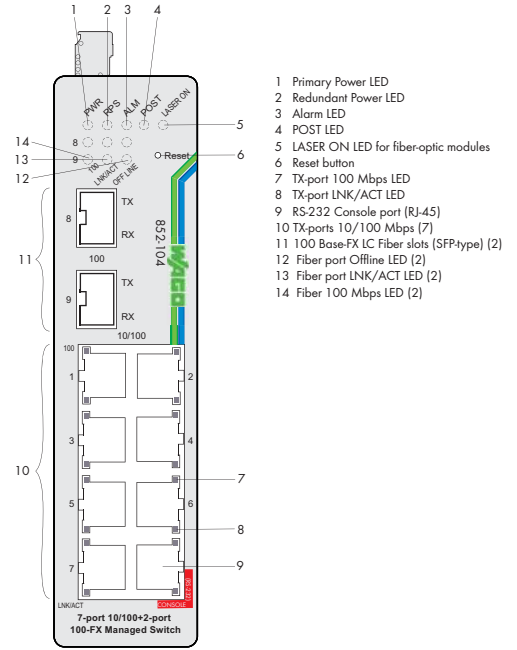
#### Features:

- Redundant DC power supply
- Large supply voltage range: 9 V ... 48 V
- DIP switch enables alarm functions
- Full compliance with IEEE802.3, 802.3u standards
- Non-blocking, store-and-forward switching
- Auto-negotiation on all 10/100Base-TX ports
- Auto-MDI/MDIX (crossover) on all 10/100Base-TX ports

Description	Item No.	Pack. Unit
8/2 Port 100BASE-TX/FX Industrial Switch	852-103	1
8/2 Port 100BASE-TX/FX Industrial Switch T (Operating temperature -40 °C ... +70 °C)	852-103/040-000	1
<b>Accessories</b>		
SFP Module 2: 1310nm, 100Base-FX Multi-mode LC, 2 km	852-201/107-002	
SFP Module 30: 1310nm, 100Base-FX Single-mode LC, 30 km	852-201/107-030	
SFP Module 2 T: 1310nm, 100Base-FX, Multi-mode, LC, 2 km, (Operating temperature -40 °C ... +70 °C)	852-201/040-002	
<b>Approvals</b>		
Conformity marking	CE	
UL 508	to 60 °C (852-103/040-000) (Approvals for product variations upon request)	

Technical Data	
Ports	8 x 10/100Base-TX (RJ-45); 2 x SFP 100Base-FX Fiber
Standards	IEEE 802.3u 100Base-TX/FX; IEEE 802.3 10Base-T
Throughputs	14,880/148,800 packets per second (pps) to 10/100 Mbps ports
Wavelength (optical fibers)	depend on SFP module
Maximum length	10/100Base-TX: 100 m; Fiber optic: up to 30 km
Supply voltage	9 V ... 48 V DC (line length < 3 m)
Energy consumption max.	6.08 W
Energy consumption typ. (24 V)	5.76 W
Operating temperature	0 °C ... +60 °C (852-103) -40 °C ... +70 °C (852-103/040-000)
Storage temperature	-20 °C ... +80 °C (852-103) -40 °C ... +85 °C (852-103/040-000)
Relative air humidity (no condensation)	95 %
Dimensions (mm) W x H x L	50 x 123 x 162 Height from upper-edge of DIN 35 rail
Weight	922 g
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP30
EMC CE-Immunity to interference	acc. to EN 61000-6-2 (2005)
EMC CE-Emission of interference	acc. to EN 61000-6-4 (2007)

# 7-Port 100BASE-TX + 2-Slot 100BASE-FX Industrial Managed Switch



The 852-104 Industrial Switch is a 7-port 10/100Base-TX with dual SFP 100Base-FX port (SFP modules are optional) configurable ETHERNET switch. The switch has a rugged housing, a redundant power supply and function monitoring with relay. These functions along with extensive ETHERNET switch options make it ideal for a wide range of applications.

**Features:**

- Web-based/SNMP management
- Redundant DC power supply
- Large supply voltage range: 9 V ... 48 V

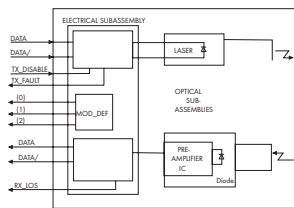
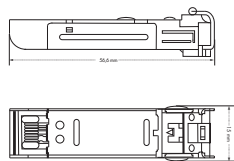
- DIP switch to enable alarm functions
- Full compliance with IEEE802.3, 802.3u, 802.3x,802.1d, 802.1q, 802.1p standards
- Xpress Ring (redundant ring recovery < 50 ms)
- Non-blocking, store-and-forward switching
- Auto-negotiation on all 10/100Base-TX ports
- Auto-MDI/MDIX (crossover) on all 10/100Base-TX ports
- VLAN (802.1q) VID
- IGMP Snooping for multicast filtering
- Port configuration, status, statistics
- Port Trunking
- SNMP v1/v2 and RMON

Description	Item No.	Pack. Unit
7/2-Port 100BASE-TX/FX Industrial Managed Switch	852-104	1
7/2-Port 100BASE-TX/FX Industrial Managed Switch T (Operating temperature -40 °C ... +70 °C)	852-104/040-000	1
<b>Accessories</b>		
SFP Module 2: 1310nm, 100Base-FX Multi-mode LC, 2 km	852-201/107-002	
SFP Module 30: 1310nm, 100Base-FX Single-mode LC, 30 km	852-201/107-030	
SFP Module 2 T: 1310nm, 100Base-FX, Multi-mode, LC, 2 km, (Operating temperature -40 °C ... +70 °C)	852-201/040-002	
<b>Approvals</b>		
Conformity marking	CE	
UL 508	to 60 °C (852-103/040-000)	
	(Approvals for product variations upon request)	
<b>Technical Data</b>		
Ports	7 x 10/100Base-TX (RJ-45); 2 x SFP 100Base-FX Fiber; 1 x RS-232 (RJ-45)	

Technical Data	
Standards	IEEE 802.3u 100Base-TX/FX; IEEE 802.3ad Port Trunking; IEEE 802.3 10Base-T; IEEE 802.1d Spanning Tree Protocol; IEEE 802.3x Flow Control; IEEE 802.1p Priority Queues; IEEE 802.1q VLAN Tagging
MAC table	Up to 2K addresses
VLANs	Port-based and Tag-based (64VIDs)
Throughputs	14,880/148,800 packets per second (pps) to 10/100 Mbps ports
Wavelength (optical fibers)	depend on SFP module
Maximum length	10/100Base-TX: 100 m; Fiber optic: up to 30 km; RS-232: 15 m
Supply voltage	9 V ... 48 V DC (line length < 3 m)
Energy consumption max.	10.08 W
Energy consumption typ. (24 V)	8.4 W
Operating temperature	0 °C ... +60 °C (852-104) -40 °C ... +70 °C (852-104/040-000)
Storage temperature	-20 °C ... +80 °C (852-104) -40 °C ... +85 °C (852-104/040-000)
Relative air humidity (no condensation)	95 %
Dimensions (mm) W x H x L	50 x 123 x 162 Height from upper-edge of DIN 35 rail
Weight	1050 g
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP30
EMC CE-Immunity to interference	acc. to EN 61000-6-2 (2005)
EMC CE-Emission of interference	acc. to EN 61000-6-4 (2007)







ETHERNET via fiber optic cables offers a multitude of advantages for industrial applications. High immunity to interference, electrical isolation, and long ranges are important parameters here.

Description		Item No.	Pack. Unit
<b>SFP Module 2: 1310nm, 100Base-FX Multi-mode LC, 2 km</b>	Connector Duplex LC, Wavelength 1310 nm, Fiber type Multi-mode 62.5/125 µm, 50/125 µm, Maximum length 2000 m, Operating temperature 0 °C ... +60 °C, Storage temperature -20 °C ... +80 °C, Dimensions (mm) W x H x D: 13.4 x 13.3 x 56.6; Laser Class 1 acc. to EN 60825-1	<b>852-201/107-002</b>	<b>1</b>
<b>SFP Module 30: 1310nm, 100Base-FX Single-mode LC, 30 km</b>	Connector Duplex LC, Wavelength 1310 nm, Fiber type Single-mode 9/125 µm, Maximum length 30000 m, Operating temperature 0 °C ... +60 °C, Storage temperature -20 °C ... +80 °C, Dimensions (mm) W x H x D: 13.4 x 13.3 x 56.6; Laser Class 1 acc. to EN 60825-1	<b>852-201/107-030</b>	<b>1</b>
<b>SFP Module 2 T: 1310nm, 100Base-FX, Multi-mode, LC, 2 km, (Operating temperature -40 °C ... +70 °C)</b>	Connector Duplex LC, Wavelength 1310 nm, Fiber type Multi-mode 62.5/125 µm, 50/125 µm, Maximum length 2000 m, Operating temperature -40 °C ... +70 °C, Storage temperature -40 °C ... +80 °C, Dimensions (mm) W x H x D: 13.4 x 13.3 x 56.6; Laser Class 1 acc. to EN 60825-1	<b>852-201/040-002</b>	<b>1</b>

**Characteristics:**

- Duplex LC optical connector
- Industry standard small form pluggable (SFP) package
- Compliant with Fast ETHERNET standard;
- Differential LVPECL inputs and outputs;
- Single 3.3V power supply;
- TTL signal detect indicator;
- Hot pluggable capability