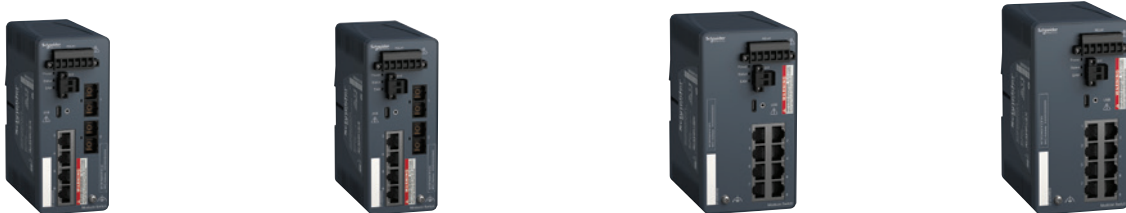


Ethernet network
Modicon managed switches

Device type			Managed switches, 4 and 5 ports, copper twisted pair and fiber optic		
					
Interfaces	Copper cable ports	Number and type	4 x 10/100BASE-TX ports		
		Shielded connectors	RJ45		
		Medium	Shielded twisted pair, category CAT 5E		
	Fiber optic ports	Total length of pair	100 m/328 ft		
		Number and type	– 1 x 100BASE-FX port		
		Connectors	– Duplex SC		
	Length of fiber	Medium	– Multimode fiber Single-mode fiber		
		50/125 µm	– 5,000 m/16,404 ft (1) –		
		62.2/125 µm	– 4,000 m/13,123 ft (1) –		
	Attenuation analysis	9/125 µm	– 30,000 m/98,425 ft (2) –		
50/125 µm fiber		– 8 dB –			
62.2/125 µm fiber		– 11 dB –			
Ethernet services	9/125 µm fiber	– 16 dB –			
	Ethernet TCP/IP,SSH, HTTP, HTTPS, SNMP, MRP (Media Redundancy Protocol), RSTP, SFTP, CP, LLDP, SNMP-Traps and SYSLOG, IGMP Snooping, VLAN, Telnet, TFTP, address conflict detection, port monitoring, port mirroring, bandwidth management, MAC notification, TCP dump, link flap detection, RMON (remote network monitoring), self test, signal contact, port hardening, password protection, RADIUS assignment, DoS prevention, role-based access control, audit trail				
USB					
Topology	Number of switches	Cascaded	Unlimited		
		Redundant in a ring	50 max.		
Redundancy		Redundant power supplies, redundant single ring, ring coupling, HiPER ring, RSTP, link aggregation, link backup, redundant network coupling, MRP			
Power supply		Voltage	12...24 V $\overline{\text{---}}$ (9.6...32 V) SELV		
		Consumption	5 W 6 W		
		Removable terminal block	6-pin (redundant power supplies)		
Operating temperature		0...+ 60°C/+ 32...+ 140°F			
Relative humidity		1...95% non-condensing			
Degree of protection		IP 30			
Dimensions		W x H x D	57 x 138 x 111 mm/2.24 x 5.43 x 4.37 in.		
Mounting		On symmetrical DIN rail, 35 mm/1.38 in. wide			
Weight			0.380 kg/0.837 lb 0.420 kg/0.925 lb		
Conforming to standards		EN/IEC 61000-6-2, EN/IEC 61000-6-4, EN/IEC 61010-2-201, CÉ, cULus, RCM, Merchant Navy			
LED indicators		P1 and P2 power supplies status, device status, memory backup medium status, channel diagnostic			
Alarm relay		Detected fault (power supply, Ethernet network, communication port, or redundancy) (volt-free contact 1 A max. at 24 V $\overline{\text{---}}$)			
Reference		MCSESM043F23F0 MCSESM053F1CU0 MCSESM053F1CS0			
Pages		34			

(1) Length dependent on the attenuation analysis and attenuation of the fiber (typical value: 2,000 m/6,561 ft).
(2) Length dependent on the attenuation analysis and attenuation of the fiber (typical value: 15,000 m/49,212 ft).

Managed switches, 6 and 8 ports, copper twisted pair and fiber optic			
			
4 x 10/100BASE-TX ports		8 x 10/100BASE-TX ports	
RJ45			
Shielded twisted pair, category CAT 5E			
100 m/328 ft			
2 x 100BASE-FX ports		—	
Duplex SC		—	
Multimode fiber	Single-mode fiber		
5,000 m/16,404 ft (1)	—		
4,000 m/13,123 ft (1)	—		
—	30,000 m/98,425 ft (2)		
8 dB	—		
11 dB	—		
—	16 dB		
Ethernet TCP/IP,SSH, HTTP, HTTPS, SNMP, MRP (Media Redundancy Protocol), RSTP, SFTP, CP, LLDP, SNMP-Traps and SYSLOG, IGMP Snooping, VLAN, Telnet, TFTP, address conflict detection, port monitoring, port mirroring, bandwidth management, MAC notification, TCP dump, link flap detection, RMON (remote network monitoring), self test, signal contact, port hardening, password protection, RADIUS assignment, DoS prevention, role-based access control, audit trail			
—			
Unlimited			
50 max.			
Redundant power supplies, redundant single ring, ring coupling, HiPER ring, RSTP, link aggregation, link backup, redundant network coupling, MRP			
12...24 V $\overline{\text{---}}$ (9.6...32 V) SELV			
7 W		6 W	
6-pin (redundant power supplies)			
0...+ 60°C/+ 32...+ 140°F		-40...+ 70°C/ -40...+ 158°F	
1...95% non-condensing			
IP 30			
57 x 138 x 111 mm/2.24 x 5.43 x 4.37 in.		73 x 138 x 111 mm/2.87 x 5.43 x 4.37 in.	
On symmetrical DIN rail, 35 mm/1.38 in. wide			
0.420 kg/0.925 lb		0.500 kg/1.102 lb	
EN/IEC 61000-6-2, EN/IEC 61000-6-4, EN/IEC 61010-2-201, C€, cULus, RCM, Merchant Navy			
Power supply status, alarm relay status, active redundancy, redundancy management, copper port status, and copper port activity, redundancy ring fault, power supply fault, switch fault, data link status			
P1 and P2 power supplies status, device status, memory backup medium status, channel diagnostic			
MCSESM063F2CU0		MCSESM063F2CS0	
		MCSESM083F23F0	
		MCSESM083F23F0H	

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Ethernet network
Modicon managed switches

Device type			Managed switches, 9 ports, copper twisted pair and fiber optic	
				
Interfaces	Copper cable ports	Number and type	8 x 10/100BASE-TX ports	
		Shielded connectors	RJ45	
		Medium	Shielded twisted pair, category CAT 5E	
		Total length of pair	100 m/328 ft	
	Fiber optic ports	Number and type	1 x 100BASE-FX port	
		Connectors	Duplex SC	
		Medium	Multimode fiber	Single-mode fiber
	Length of fiber	50/125 µm	5,000 m/16,404 ft (1)	–
		62.2/125 µm	4,000 m/13,123 ft (1)	–
		9/125 µm	–	30,000 m/98,425 ft (2)
Attenuation analysis	50/125 µm fiber	8 dB	–	
	62.2/125 µm fiber	11 dB	–	
	9/125 µm fiber	–	16 dB	
Ethernet services		Ethernet TCP/IP, SSH, HTTP, HTTPS, SNMP, MRP (Media Redundancy Protocol), RSTP, SFTP, SCP, LLDP, SNMP-Traps and SYSLOG, IGMP Snooping, VLAN, Telnet, TFTP, address conflict detection, port monitoring, port mirroring, bandwidth management, MAC notification, TCP dump, link flap detection, RMON (remote network monitoring), self test, signal contact, port hardening, password protection, RADIUS assignment, DoS prevention, role-based access control, audit trail		
USB		–		
Topology	Number of switches	Cascaded	Unlimited	
		Redundant in a ring	50 max.	
Redundancy			Redundant power supplies, ring coupling, redundant single ring, HiPER ring, link aggregation link backup, redundant network coupling, MRP	
Power supply	Voltage		12...24 V ~ (9.6...32 V) SELV	
	Consumption		7 W	
	Removable terminal block		6-pin (redundant power supplies)	
Operating temperature			0...+ 60°C/+ 32...+ 140°F	
Relative humidity			1...95% non-condensing	
Degree of protection			IP 30	
Dimensions		W x H x D	73 x 138 x 111 mm/2.87 x 5.43 x 4.37 in.	
Mounting			On symmetrical DIN rail, 35 mm/1.38 in. wide	
Weight			0.500 kg/1.102 lb	
Conforming to standards			EN/IEC 61000-6-2, EN/IEC 61000-6-4, EN/IEC 61010-2-201, CE, cULus, RCM, Merchant Navy	
LED indicators			P1 and P2 power supplies status, device status, memory backup medium status, channel diagnostic	
Alarm relay			Detected fault (power supply, Ethernet network, communication port, or redundancy) (volt-free contact 1 A max. at 24 V ~)	
Reference			MCSESM093F1CU0 MCSESM093F1CS0	
Pages			34	

(1) Length dependent on the attenuation analysis and attenuation of the fiber (typical value: 2,000 m/6,561 ft).
(2) Length dependent on the attenuation analysis and attenuation of the fiber (typical value: 15,000 m/49,212 ft).

Managed switches, 10 ports, copper twisted pair and fiber optic				
				
8 x 10/100BASE-TX ports				
RJ45				
Shielded twisted pair, category CAT 5E				
100 m/328 ft				
2 x 100BASE-FX ports				
Duplex SC				
Multimode fiber			Single-mode fiber	
5,000 m/16,404 ft (1)			—	
4,000 m/13,123 ft (1)			—	
—			30,000 m/98,425 ft (2)	
8 dB			—	
11 dB			—	
—			16 dB	
Ethernet TCP/IP, SSH, HTTP, HTTPS, SNMP, MRP (Media Redundancy Protocol), RSTP, SFTP, SCP, LLDP, SNMP-Traps and SYSLOG, IGMP Snooping, VLAN, Telnet, TFTP, address conflict detection, port monitoring, port mirroring, bandwidth management, MAC notification, TCP dump, link flap detection, RMON (remote network monitoring), self test, signal contact, port hardening, password protection, RADIUS assignment, DoS prevention, role-based access control, audit trail				
—				
Unlimited				
50 max.				
Redundant power supplies, ring coupling, redundant single ring, HiPER ring, link aggregation link backup, redundant network coupling, MRP				
12...24 V ~ (9.6...32 V) SELV				
8 W				
6-pin (redundant power supplies)				
0...+ 60°C/+ 32...+ 140°F		-40...+ 70°C/ -40...+ 158°F		0...+ 60°C/+ 32...+ 140°F
-40...+ 70°C/ -40...+ 158°F				
1...95% non-condensing				
IP 30				
73 x 138 x 111 mm/2.87 x 5.43 x 4.37 in.				
On symmetrical DIN rail, 35 mm/1.38 in. wide				
0.500 kg/1.102 lb		0.570 kg/1.256 lb		0.500 kg/1.102 lb
0.570 kg/1.256 lb				
EN/IEC 61000-6-2, EN/IEC 61000-6-4, EN/IEC 61010-2-201, CE, cULus, RCM, Merchant Navy				
P1 and P2 power supplies status, device status, memory backup medium status, channel diagnostic				
Detected fault (power supply, Ethernet network, communication port, or redundancy) (volt-free contact 1 A max. at 24 V ~)				
MCSESM103F2CU0		MCSESM103F2CU0H		MCSESM103F2CS0
MCSESM103F2CS0H				

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Ethernet network
Modicon managed switches

Device type			Managed switches, 8 gigabit ports, copper twisted pair with PoE	
				
Interfaces	Copper cable ports	Number and type	8 x 10/100BASE-TX ports with PoE	
		Shielded connectors	RJ45	
		Medium	Shielded twisted pair, category CAT 5E	
	Fiber optic ports	Total length of pair	100 m/328 ft	
		Number and type	–	
		Connectors	–	
	Length of fiber	Medium	–	
		50/125 µm	–	
		62.2/125 µm	–	
	Attenuation analysis	9/125 µm	–	
		50/125 µm fiber	–	
		62.2/125 µm fiber	–	
9/125 µm fiber		–		
Ethernet services		SMTP V3, SNTP client, multicast filtering for optimization of the Global Data protocol, configuration via Web access, VLAN, IGMP Snooping, RSTP (<i>Rapid Scanning Tree Protocol</i>), priority port, data stream control, secure port, SNMP- Traps and SYSLOG, port hardening password protection, RADIUS assignment, DoS prevention, role-based access control, audit trail, Power over Ethernet		
USB		–		
Topology	Number of switches	Cascaded	Unlimited	
		Redundant in a ring	50 max.	
Redundancy			redundant power supplies, ring coupling, redundant single ring, HiPER ring, link aggregation link backup, redundant network coupling, MRP	
Power supply	Voltage		24 V $\overline{\text{---}}$ (18...30 V) SELV	
	Consumption		106 W	
	Removable terminal block		6-pin (redundant power supplies)	
Operating temperature			0...+ 60°C/+ 32...+ 140°F	–40...+ 70°C/ –40...+ 158°F
Relative humidity			1...95% non-condensing	
Degree of protection			IP 30	
Dimensions		W x H x D	125 x 138 x 111 mm/4.92 x 5.43 x 4.37 in.	
Mounting			On symmetrical DIN rail, 35 mm/1.38 in. wide	
Weight			1.4 kg/3.086 lb	
Conforming to standards			EN/IEC 61000-6-2, EN/IEC 61000-6-4, EN/IEC 61010-2-201, CE, cULus, RCM, Merchant Navy	
LED indicators			P1 and P2 power supplies status, device status, memory backup medium status, channel diagnostic	
Alarm relay			Detected fault (power supply, Ethernet network, communication port, or redundancy) (volt-free contact 1 A max. at 24 V $\overline{\text{---}}$)	
Reference			MCSESP083F23G0	MCSESP083F23G0T
Pages			34	

(1) These optional references of SFP transceivers are available in Separate parts for accessories for managed switches in [page 30](#).

Managed switch, 8 ports and 4 gigabit ports, copper twisted pair and SFP		
		
8 x 10/100BASE-TX ports		
RJ45		
Shielded twisted pair, category CAT 5E		
100 m/328 ft		
100/1000BASE SFP		
–		
SFP (1)		
–		
–		
–		
–		
–		
–		
Ethernet TCP/IP, SSH, HTTP, HTTPS, SNMP, MRP (Media Redundancy Protocol), RSTP, SFTP, SCP, LLDP, SNMP-Traps and SYSLOG, IGMP Snooping, VLAN, Telnet, TFTP, address conflict detection, port monitoring, port mirroring, bandwidth management, MAC notification TCP dump, link flap detection, RMON (remote network monitoring), self test, signal contact		
–		
Unlimited		
50 max.		
Redundant power supplies, ring coupling, redundant single ring, HiPER ring, link aggregation link backup, redundant network coupling, MRP		
12...24 V $\overline{\text{---}}$ (9.6...32 V) SELV		
9 W + 1 W per SFP fiber optic module		
6-pin (redundant power supplies)		
0...+ 60°C/+ 32...+ 140°F		
1...95% non-condensing		
IP 30		
73 x 138 x 111 mm/2.87 x 5.43 x 4.37 in.		
On symmetrical DIN rail, 35 mm/1.38 in. wide		
0.570 kg/1.256 lb		
EN/IEC 61000-6-2, EN/IEC 61000-6-4, EN/IEC 61010-2-201, CE, cULus, RCM, Merchant Navy		
P1 and P2 power supplies status, device status, memory backup medium status, channel diagnostic		
Detected fault (power supply, Ethernet network, communication port, or redundancy) (volt-free contact 1 A max. at 24 V $\overline{\text{---}}$)		
MCSESM123F2LG0		
34		



Ethernet network
Modicon managed switches

Device type			Managed switches, 16 ports, copper twisted pair and fiber optic	
				
Interfaces	Copper cable ports	Number and type	16 x 10/100BASE-TX ports	14 x 10/100BASE-TX ports
		Shielded connectors	RJ45	
		Medium	Shielded twisted pair, category CAT 5E	
		Total length of pair	100 m/328 ft	
	Fiber optic ports	Number and type	–	2 x 100BASE-FX ports
		Connectors	–	Duplex SC
		Medium	–	Multimode fiber
	Length of fiber	50/125 µm	–	5,000 m/16,404 ft (1)
		62.2/125 µm	–	4,000 m/13,123 ft (1)
		9/125 µm	–	–
	Attenuation analysis	50/125 µm fiber	–	8 dB
		62.2/125 µm fiber	–	11 dB
		9/125 µm fiber	–	–
	Ethernet services		Ethernet TCP/IP, SSH, HTTP, HTTPS, SNMP, MRP (Media Redundancy Protocol), RSTP, SFTP, SCP, LLDP, configuration via web server, VLAN, multicast filtering, data stream control, secure port, IGMP Snooping, SMTP V3, SNMP-Traps and SYSLOG, priority port, Telnet, TFTP, address conflict detection, port monitoring, port mirroring, port hardening	
Topology	Number of switches	Cascaded	Unlimited	
		Redundant in a ring	50 max.	
Redundancy		Redundant power supplies, redundant single ring, ring coupling		
Power supply	Voltage		24 V ~ (9.6...60 V ~ /18...30 V ~) SELV	
	Consumption		9.4 W	11.8 W
	Removable terminal block		6 - pin (redundant power supplies)	
Operating temperature		0...+ 60°C/+ 32...+ 140°F		
Relative humidity		10...95% non-condensing		
Degree of protection		IP 20		
Dimensions		W x H x D		
		111 x 131 x 111 mm/4.37 x 5.16 x 4.37 in.		
Mounting		On symmetrical DIN rail, 35 mm/1.38 in. wide		
Weight		0.600 kg/1.323 lb		
Conforming to standards		IEC/EN 61131-2, UL 508 and CSA 22.2 No. 142, UL 1604 and CSA 22.2 No. 213 class 1 division 2, CE, GL		
LED indicators		Power supply status, alarm relay status, active redundancy, redundancy management, copper port status and copper port activity		
Alarm relay		Detected fault (power supply, Ethernet network, communication port, or redundancy) (volt-free contact 1 A max. at 24 V ~)		
Reference		TCSESM163F23F0TCSESM163F2CU0		
Pages		33		

(1) Length dependent on the attenuation analysis and attenuation of the fiber (typical value: 2,000 m/6,561 ft).
(2) Length dependent on the attenuation analysis and attenuation of the fiber (typical value: 15,000 m/49,212 ft).

Managed switches, 16 and 24 ports, copper twisted pair and fiber optic		
		
14 x 10/100BASE-TX ports		22 x 10/100BASE-TX ports
RJ45		
Shielded twisted pair, category CAT 5E		
100 m/328 ft		
2 x 100BASE-FX ports		
Duplex SC		
Single-mode fiber		Multimode fiber
–		5,000 m/16,404 ft (1)
–		4,000 m/13,123 ft (1)
30,000 m/98,425 ft (2)		–
–		8 dB
–		11 dB
16 dB		–
Ethernet TCP/IP, SSH, HTTP, HTTPS, SNMP, MRP (Media Redundancy Protocol), RSTP, SFTP, SCP, LLDP, configuration via web server, VLAN, multicast filtering, data stream control, secure port, IGMP Snooping, SMTP V3, SNMP-Traps and SYSLOG, priority port, Telnet, TFTP, address conflict detection, port monitoring, port mirroring, port hardening		
Unlimited		
50 max.		
Redundant power supplies, redundant single ring, ring coupling		
24 V ~ (9.6...60 V ~ /18...30 V ~) SELV		
11.8 W		14.5 W
6 - pin (redundant power supplies)		
0...+ 60°C/+ 32...+ 140°F		
10...95% non-condensing		
IP 20		
111 x 131 x 111 mm/4.37 x 5.16 x 4.37 in.		
On symmetrical DIN rail, 35 mm/1.38 in. wide		
0.600 kg/1.323 lb		0.610 kg/1.345 lb
IEC/EN 61131-2, UL 508, UL 1604 class 1 division 2, CSA 22.2 No. 142 (cUL), CSA 22.2 No. 213 class 1 division 2 (cUL), CE, GL		
Power supply status, alarm relay status, active redundancy, redundancy management, fiber optic port status and fiber optic port activity		
Detected fault (power supply, Ethernet network, communication port, or redundancy) (volt-free contact 1 A max. at 24 V ~)		
TCSESM163F2CS0		TCSESM243F2CU0
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