

Modicon FactoryCast

Modicon FactoryCast PLC modules and the Modicon FactoryCast Gateway combine the benefits of open Web technologies with the reliability of industrial control.

In the areas of distributed infrastructure, RTU installations, industry, machinery and energy, the Modicon FactoryCast ranges offer an ideal solution for all your remote diagnostics and maintenance, monitoring, control and programming needs.



Schneider Electric's communication solutions for industrial networks monitor your control system applications to give you precise control and maintenance data in real time.

Remote intelligent modules or in-rack modules for PLCs, standalone products and devices - the Modicon FactoryCast, AS-Interface and Modicon Connexium ranges provide access to advanced functions, flexible tools and services for optimising communication between all your automation products.



AS-Interface

AS-Interface is a quick expandable cabling system which connects all components in a control system with just a single cable. Intelligent, it features built-in communication management.



Modicon Connexium

Designed for open industrial solutions, Modicon Connexium products are the Ethernet-ready network hubs, switches, transceivers, gateways and cables which provide you with integrated Ethernet solutions to unite everything in your installation, from device level all the way to your corporate intranet. Modicon Connexium boosts network performance and reliability.

7 | Networks connectivity and Web servers



ConneXium cabling system

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AS-Interface cabling system

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Hub			
Interfaces	Copper cable ports	Number and type	4 x 10BASE-T ports
		Shielded connectors	RJ45
		Medium	Shielded twisted pair, category CAT 5E
		Total length of pair	100 m
Power supply	Voltage	24 V (18...32) DC, safety extra low voltage (SELV)	
Degree of protection		IP 30	
Dimensions W x H x D		40 x 125 x 80 mm	
Conformity to standards		cUL 60950, UL 508 and CSA 142, UL 1604 and CSA 213 Class 1 Division 2, C€, GL	
		FM 3810, FM 3611 Class 1 Division 2 , C-TICK	
Reference		499 NEH 104 10	



Transceiver			
Interfaces	Copper cable ports	Number and type	1 x 100BASE-TX port
		Shielded connectors	RJ45
		Medium	Shielded twisted pair, category CAT 5E
		Total length of pair	100 m
	Fiber optic ports	Number and type	1 x 100BASE-FX port
		Connectors	SC
		Medium	Multimode optical fiber
		Length of optical fiber	
		50/125 µm fiber	3000 m (1)
		62.2/125 µm fiber	3000 m (1)
		Attenuation analysis	
		50/125 µm fiber	8 dB:
		62.2/125 µm fiber	11 dB:
Power supply	Voltage	24 V (18...32) DC, safety extra low voltage (SELV)	
Degree of protection		IP 20	
Dimensions W x H x D		47 x 135 x 111 mm	
Conformity to standards		cUL 60950, UL 508 and CSA 142, UL 1604 and CSA 213 Class 1 Division 2, C€, GL , C-TICK	
Reference		499 NTR 101 00	

(1) Length dependent on the attenuation analysis and attenuation of the optical fiber (typical value: 2000 m).



IP 67 switch		Twisted pair, unmanaged	
Interfaces	Copper cable ports	Number and type	5 x 10BASE-T/100BASE-TX ports
		Shielded connectors	M12 (type D)
		Medium	Shielded twisted pair, category CAT 5E
		Total length of pair	100 m with rated cable
Power supply	Voltage	24 VDC (18...32 VDC), safety extra low voltage (SELV)	
Degree of protection		IP 65/67	
Dimensions W x H x D		60 x 126 x 31 mm	
Conformity to standards		cUL 508 and CSA 22.2 14 , C-TICK	
Reference		TCS ESU 051 F0	



Switches			Copper twisted pair, unmanaged			
Interfaces	Copper cable ports	Number and type	3 x 10BASE-T/ 100BASE-TX ports	4 x 10BASE-T/ 100BASE-TX ports	5 x 10BASE-T/ 100BASE-TX ports	8 x 10BASE-T/ 100BASE-TX ports
		Shielded connectors	Type RJ45			
		Medium	Shielded twisted pair, category CAT 5E			
		Total length of pair	100 m			
	Fiber optic ports	Number and type	–	1 x 100BASE-FX ports	–	–
		Connectors	–	Duplex SC	–	–
		Medium	–	Multimode optical fiber	–	–
		Length of optical fiber				
		50/125 µm fiber	–	5000 m (1)	–	–
		62,2/125 µm fiber	–	4000 m (1)	–	–
		Attenuation analys				
		50/125 µm fiber	–	8 dB	–	–
		62,2/125 µm fiber	–	11 dB	–	–
Power supply	Voltage, safety extra low voltage (SELV)		--- 24 VDC (--- 9,6...32 VDC)			
	Power consumption		Max. 2,2 W	Max. 3,9 W	Max. 2,2 W	Max. 4,1 W
	Connector		3 way removable connector			
Degree of protection		IP 30				
Dimensionss		W x H x D	25 x 114 x 79 mm			35 x 138 x 121 mm
Weight			0,113 kg	0,120 kg	0,113 kg	0,246 kg
Conformity to standards		UL 508 and CSA 22.2 N° 142 IEC/EN 61131-2, IEC 60825-1 class 1, CISPR 11A				
Alarm relay		–				
Reference		TCS ESU 033FN0	TCS ESU 043F1N0	TCS ESU 053FN0	TCS ESU 083FN0	

(1) Length dependent on the attenuation analysis and attenuation of the fiber optic (typical value: 2,000 m).



Switches			Copper twisted pair and fibre optic, unmanaged				
Interfaces	Copper cable ports	Number and type	4 x 10BASE-T/ 100BASE-TX ports	3 x 10BASE-T/ 100BASE-TX ports	4 x 10BASE-T/ 100BASE-TX ports	3 x 10BASE-T/ 100BASE-TX ports	8 x 10BASE-T/ 100BASE-TX ports
		Shielded connectors	RJ45				
		Medium	Shielded twisted pair, category CAT 5E				
		Total length of pair	100 m				
	Fiber optic ports	Number and type	1 x 100BASE-FX port	2 x 100BASE-FX ports	1 x 100BASE-FX port	2 x 100BASE-FX ports	–
		Connectors	SC				–
		Medium	Multimode optical fiber		Single mode optical fiber		–
		Length of optical fiber					
		50/125 µm fiber	5000 m (1)		–		–
		62.2/125 µm fiber	4000 m (1)		–		–
		9/125 µm fiber	–		32 500 m (2)		–
Power supply	Voltage	24 VDC (18...32), safety extra low voltage (SELV)					
Degree of protection		IP 20					
Dimensions		W x H x D	47 x 135 x 111 mm				
Conformity to standards			cUL 60950, cUL 508 and CSA 142, UL 1604 and CSA 213 Class 1 Division 2, C€, GL , C-TICK				
References			499 NMS 251 01	499 NMS 251 02	499 NSS 251 01	499 NSS 251 02	499 NES 181 00

(1) Length dependent on the attenuation analysis and attenuation of the fiber optic (typical value: 2,000 m).

(2) Length dependent on the attenuation analysis and attenuation of the fiber optic (typical value: 15,000 m).



Switches			Copper twisted pair and fiber optic, managed			
Interfaces	Copper cable ports	Number and type	3 x 10/100BASE-TX ports	2 x 10/100BASE-TX ports	3 x 10/100BASE-TX ports	2 x 10/100BASE-TX ports
		Shielded connectors	RJ45			
		Medium	Shielded twisted pair, category CAT 5E			
		Total length of pair	100 m			
	Fiber optic ports	Number and type	1 x 100BASE-FX port	2 x 100BASE-FX ports	1 x 100BASE-FX port	2 x 100BASE-FX ports
		Connectors	Duplex SC			
		Medium	Multimode optical fiber		Single mode optical fiber	
		Length of optical fiber				
		50/125 µm fiber	5,000 m (1)		—	
		62.2/125 µm fiber	4,000 m (1)		—	
		9/125 µm fiber	—		32,500 m (2)	
		Power supply	Voltage	Operation	9.6...60 VDC/18...30 VAC, safety extra low voltage (SELV)	
Degree of protection						
Dimensions W x H x D						
Conformity to standards						
			IEC 61131-2, IEC 61850-3, UL 508, UL 1604 Class 1 Division 2, CSA C22.2 14 (cUL), CSA C22.2 213 Class 1 Division 2 (cUL), CE, GL, C-TICK			
References			TCSESM043F1CU0	TCSESM043F2CU0	TCSESM043F1CS0	TCSESM043F2CS0

(1) Length dependent on the attenuation analysis and attenuation of the fiber optic (typical value: 2,000 m).

(2) Length dependent on the attenuation analysis and attenuation of the fiber optic (typical value: 15,000 m).



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Switches			Copper twisted pair, managed	
Interfaces	Copper cable ports	Number and type	4 x 10/100BASE-TX ports	8 x 10/100BASE-TX ports
		Shielded connectors	RJ45	
		Medium	Shielded twisted pair, category CAT 5E	
		Total length of pair	100 m	
Power supply	Voltage	Operation	9.6...60 VDC/18...30 VAC, safety extra low voltage (SELV)	
Degree of protection			IP 20	
Dimensions W x H x D			47 x 131 x 111 mm	74 x 131 x 111 mm
Conformity to standards			IEC 61131-2, IEC 61850-3, UL 508, UL 1604 Class 1 Division 2, CSA C22.2 14 (cUL), CSA C22.2 213 Class 1 Division 2 (cUL), CÉ, GL , C-TICK	
References			TCSESM043F23F0	TCSESM083F23F0

ConneXium

Ethernet TCP/IP, Transparent Ready
Cabling system: ConneXium managed switches



Switches			Copper twisted pair and fiber optic, managed			
Interfaces	Copper cable ports	Number and type	7 x 10/100BASE-TX ports	6 x 10/100BASE-TX ports	7 x 10/100BASE-TX ports	6 x 10/100BASE-T ports
		Shielded connectors	RJ45			
		Medium	Shielded twisted pair, category CAT 5E			
		Total length of pair	100 m			
	Fiber optic ports	Number and type	1 x 100BASE-FX port	2 x 100BASE-FX port	1 x 100BASE-FX port	2 x 100BASE-FX port
		Connectors	Duplex SC			
		Medium	Multimode optical fiber (MM)			Single mode optical fiber (SM)
		Length of optical fiber				
		50/125 µm fiber	5,000 m (1)			–
		62.2/125 µm fiber	4,000 m (1)			–
		9/125 µm fiber	–			32,500 m (2)
Power supply	Voltage	Operation	9.6...60 VDC/18...30 VAC, safety extra low voltage (SELV)			
Degree of protection			IP 20			
Dimensions W x H x D			74 x 131 x 111 mm			
Conformity to standards			IEC 61131-2, IEC 61850-3, UL 508, UL 1604 Class 1 Division 2, CSA C22.2 14 (cUL), CSA C22.2 213 Class 1 Division 2 (cUL), CE, GL, C-TICK			
References			TCSESM083F1CU0	TCSESM083F2CU0	TCSESM083F1CS0	TCSESM083F2CS0

(1) Length dependent on the attenuation analysis and attenuation of the fiber optic (typical value: 2,000 m).
(2) Length dependent on the attenuation analysis and attenuation of the fiber optic (typical value: 15,000 m).



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Switches			Copper twisted pair, managed	Copper twisted pair and fiber optic, managed		
Interfaces	Copper cable ports	Number and type	16x 10/100BASE-TX ports	14 x 10/100BASE-TX ports	22 x 10/100BASE-TX ports	14 ports 10/100BASE-TX
		Shielded connectors	RJ45			
		Total length of pair	100 m			
	Fiber optic ports	Number and type	–	2 x 100BASE-FX ports		
		Connector	–	Duplex SC		
		Medium	–	Multimode optical fiber		Optical fiber
		Length of optical fiber				
		50/125 µm fiber	–	5,000 m (1)	–	
		62.2/125 µm fiber	–	4,000 m (1)	32 500 M (2)	
Power supply	Voltage	Operation	9.6...60 VDC/18...30 VAC, safety extra low voltage (SELV)			
Degree of protection			IP 20			
Dimensions W x H x D			111 x 131 x 111 mm			
Conformity to standards			cUL60950, UL508and CSA142, UL 1604and CSA213Class1Division2, CE, GL, C-TICK			243F2CU0
References			TCSESM163F23F0	TCSESM163F2CU0	TCSESM243F2CU0	TCSESM16F2CS0

(1) Length dependent on the attenuation analysis and attenuation of the fiber optic (typical value: 2,000 m).



Switches			Copper twisted pair and fibre optic, managed - extended features		
Interfaces	Copper cable ports	Number and type	8 x 10/100 BASE-TX ports	6 x 10/100 BASE-TX ports	6 x 10/100 BASE-TX ports
		Shielded connectors	RJ45		
		Medium	Shielded twisted pair, category CAT 5E		
		Total length of pair	100 m		
	Fiber optic ports	Number and type	–	2 x 100BASE-FX ports	2 x 100BASE-FX ports
		Connectors	–	Duplex SC	Duplex SC
		Medium	–	Multi mode optical fibre	Single mode optical fibre
		Length of optical fiber			
		50/125 µm fiber	–	5,000 m (1)	–
		62.2/125 µm fiber	–	4,000 m (1)	–
		9/125 µm fiber	–	–	32,500 m (2)
		Attenuation analysis			
		50/125 µm fibre	–	8 dB	–
		62.2/125 µm fiber	–	11 dB	–
		9/125 µm fiber	–	–	16 dB
	Ethernet services		FDR, SMTP V3, SNMP client, multicast filtering for optimization of the Global Data protocol, configuration via Web access, VLAN, IGMP Snooping, RSTP (Rapid Scanning Tree Protocol), priority port, data stream control, secure port.		
Topology	Number of switches	Cascaded	Unlimited		
		Redundant in a ring	max. 50		
Redundancy			Redundant power supplies, redundant single ring, ring coupling		
Power supply	Voltage	Operation	18 - 60 V safety extra low voltage (SELV)		
	Power consumption		10 W	12 W	12 W
Degree of protection			IP30		
Dimensions W x H x D			120 x 137 x 115 mm		
Conformity to standards			IEC/EN 61131-2, IEC 61850-3, UL 508, UL ISA-12.12.-01 Class 1 Div 2 Group A, B, C, D, CSA 22.2 No. 142 (cUL), CSA 22.2 No. 213 Class 1 Division 2 (cUL), CE, GL, C-Tick		
Alarm relay			Power supply fault, Ethernet network fault or communication port fault (2 A max. volt-free contact at 30 VDC)		
References			TCSESM083F23F1	TCSESM063F2CU1	TCSESM063F2CS1

(1) Length dependent on the attenuation analysis and attenuation of the fiber optic (typical value: 2,000 m).

(2) Length dependent on the attenuation analysis and attenuation of the fiber optic (typical value: 15,000 m).

Switches			Copper twisted pair and fiber optic, managed				Copper twisted pair, managed
Interfaces	Copper cable ports	Number and type	8 x 10/100 BASE-TX ports				8 x 10/100 BASE-TX ports 2 x 100 BASE-TX ports (Gigabits)
		Shielded connectors	RJ45				
		Medium	Shielded twisted pair, category CAT 5E				
		Total length of pair	100 m				
	Fiber optic ports	Number and type	2 x 100BASE-SX ports (1)	2 x 100BASE-LH ports (2)	2 x 100BASE-LX ports (3)	–	
		Connectors	LC				–
		Medium	Multimode optical fiber	Single optical fibre	Single mode and multi-mode optical fiber	–	
		Length of optical fiber				–	
		50/125 µm fiber	550 m	–	550 m	–	
		62.2/125 µm fiber	275 m	–	550 m	–	
		9/125 µm fiber	–	8 - 72,000 m	20,000 m	–	
		Attenuation analysis					
		50/125 µm fibre	7,5 dB	–	11 dB	–	
		62.2/125 µm fiber	7,5 dB	–	11 dB	–	
		9/125 µm fiber	–	6 - 22 dB	11 dB	–	
		Ethernet services	FDR, SMTP V3, SNTP client, multicast filtering for optimization of the Global Data protocol, configuration via Web access, VLAN, IGMP Snooping, RSTP (Rapid Scanning Tree Protocol), priority port, data stream control, secure port.				
Topology	Number of switches	Cascaded	Unlimited				
		Redundant in a ring	max. 50				
Redundancy			Redundant power supplies, redundant single ring, ring coupling				
Power supply	Voltage	Operation	9,6...60 VDC/18...30 VAC, safety extra low voltage (SELV)				
Degree of protection			IP20				
Dimensions W x H x D			111 x 113 x 111 mm				
Conformity to standards			cUL 60950, UL 508 and CSA 22.2, UL 1604 and CSA 213 CSA 22.2 No. 213 Class 1 Division 2, C€, GL				
References			TCSESM103F2LG0				TCSESM103F23G0

(1) With TCSEAAF1LFU00 fiber optic module to be ordered separately

(2) With TCSEAAF1LFH00 fiber optic module to be ordered separately

(3) With TCSEAAF1LFS00 fiber optic module to be ordered separately

Switches			Copper twisted pair and fiber optic, managed			Copper twisted pair, managed
Interfaces	Copper cable ports	Number and type	6 x 10/100 BASE-TX ports			8 x 10/100 BASE-TX ports
		Shielded connectors	RJ45			
		Total length of pair	100 m			
	Fiber optic ports	Number and type	2 x 100 BASE-SX ports	3 x 100 BASE-LX ports	-	
		Connector	Duplex SC			-
		Medium	Multimode optical fiber			-
		Length of optical fiber				
		50/125 μm fiber	5,000 m (1)			-
		62.2/125 μm fiber	4,000 m (1)			-
		9/125 μm fiber	-	-	-	
		Attenuation analysis				
		50/125 μm fiber	8 dB			-
		60.2/125 μm fiber	11 dB			-
		9/125 μm fiber	-	-		
		Ethernet services	FDR, SNTP client, multicast filtering for optimization of the Global Data protocol, configuration via Web access,IGMP Snooping, RSTP (Rapid Scanning Tree Protocol), priority port, data stream control, secure port.			
Topology	Number of switches	Cascaded	Unlimited			
		Redundant in a ring	Max. 50			
Redundancy	Redundant power supplies					
References			TCSESB083F23F0	TCSESB083F2CU0	TCSESB093F2CU0	



Type of gateway			TSX ETG 100
Transparent Ready services	Class		B10
	Standard Web services	Configuration	Predefined Web pages
		Read/Write	Acces to connected products list, reading of Modbus devices registers
		Diagnostic	Via predefined Web pages : diagnostic on Ethernet and Modbus links
	Ethernet TCP/IP communication management services	Modbus messaging	Read/Write Modbus registers of connected devices
		SNMP	SNMP Agent, device administration with a SNMP manager
		BOOTP protocol	FDR Client (replacement of defective product)
Security		Miniature firewall on-board (IP address filtering) and password protection	
Ethernet connectivity	Physical interface		10BASE-T/100BASE-TX (RJ45)
	Data rate		10/100 Mbps with automatic recognition
	Medium		Twisted pair
Modbus connectivity	Type of port		RS 485 (2 or 4-wire) or RS 232
	Protocol		Modbus (RTU and ASCII)
	Maxi transmission speed		38,4 Kbps (RS 485), 57,6 Kbps (RS 232)
	Number of devices		32 max.
Power supply			24 VDC, 4 W or by power supply device PoE (Power Over Ethernet - IEEE 802.3af)
Degree of protection			IP 30
Dimensions W x H x D			72 x 81 x 76 mm, mounting on symmetrical DIN rail
Conformity to standards			UL, cUL (conforming to CSA C22-2 no. 14-M91), UL508 , C-TICK, CÉ
Reference			TSX ETG 100 (1)

(1) Fonctions: Twido, Compact, Momentum, TSX Micro, Altivar, Altistart, Magelis, ... All products compatible with Modbus standard.



Type of gateway			Ethernet/Modbus Plus gateway/router Class B10			
Transparent Ready services	Class		B10			
	Standard Web services	Configuration	Predefined Web pages			
		Read/Write	Acces to connected products list, reading of Modbus Plus devices registers			
		Diagnostic	Via predefined Web pages : diagnostic on Ethernet and Modbus Plus links			
	Standard Ethernet TCP/IP communication services		Modbus TCP messaging SNMP Agent			
Functions	Communication gateway		Ethernet/Modbus Plus (many-to-many Modbus Plus)			
	Interface for programming		Ethernet/Modbus Plus			
Interfaces	Ethernet TCP/IP port	Type	1 x 10BASE-T/100BASE-TX			
		Shielded connectors	RJ45			
		Medium	Shielded twisted pair			
		Max. distances	100 m (327 ft)			
	Serial port	Type	1 x Modbus Plus			
		Shielded connectors	9-way SUB-D connector			
		Medium	Shielded twisted pair (single or double)			
			Power supply		Voltage	110/220 VAC (93.5 VAC...242 VAC), 47...63 Hz
			Degree of protection		IP 20	
Dimensions W x H x D		122 x 229 x 248 mm				
Conformity to standards		UL 508, CSA 142, C�				
Reference		174 CEV 200 40 (2)				

(2) Fonctions: 1 Ethernet port, 10BASE-T/100BASE-TX, 1 Modbus Plus port

ConneXium

Ethernet TCP/IP, Transparent Ready

Cabling system: Connection components

Shielded copper connection cables

ConneXium shielded connection cables are available in two versions to meet the various current standards and approvals:

- These cables conform to:
- EIA/TIA-568 standard, category CAT 5E,
 - IEC 11801/EN 50173 standard, class D.
- Their fire resistance conforms to:
- NFC 32070# C2 classification
 - IEC 322/1 standards
 - Low Smoke Zero Halogen (LSZH).

EIA/TIA 568 shielded twisted pair cables



EIA/TIA 568 shielded twisted pair cables for CE market						
Length	m / (ft)	2 (6.6)	5 (16.4)	12 (39.4)	40 (131.2)	80 (262.5)
Straight cables	Preformed at both ends	2 RJ45 connectors for connection to terminal devices (DTE)				
References		490 NTW 000 02	490 NTW 000 05	490 NTW 000 12	490 NTW 000 40	490 NTW 000 80
Crossed cord cables	Preformed at both ends	2 RJ45 connectors for connections between hubs, switches and transceivers				
References		–	490 NTC 000 05	–	490 NTC 000 40	490 NTC 000 80

EIA/TIA 568 shielded twisted pair cables



- Cable material is :
- CEC type FT-1
 - NEC type CM

EIA/TIA shielded twisted pair cables for UL markets							
Length	m / (ft)	2 (6.6)	5 (16.4)	12 (39.4)	15 (49.2)	40 (131.2)	80 (262.5)
Straight cables	Preformed at both ends	2 RJ45 connectors for connection to terminal devices (DTE)					
References		490 NTW 000 02U	490 NTW 000 05U	490 NTW 000 12U	–	490 NTW 000 40U	490 NTW 000 80U
Crossed cord cables	Preformed at both ends	2 RJ45 connectors for connections between hubs, switches and transceivers					
References		–	490 NTC 000 05U	–	490 NTC 000 12U	490 NTC 000 40U	490 NTC 000 80U

Cables M12



Cables M12						
M12 / M12	Length (m)	1	3	10	25	40
Reference		TCSECL1M1M●●S2●●				
RJ45 / M12	Length(m)	1	3	10	25	40
Reference		TCSECL1M3M●●S2●●				

Glass fiber optic cables



- These glass fiber optics are for making connections:
- To a terminal device (DTE)
 - Between hubs, transceivers and switches

Glass fiber optic cables					
Length	m / (ft)	5 (16.4)	5 (16.4)	3 (9.8)	5 (16.4)
Glass fiber optic cables	Preformed at both ends	1 SC connector 1 MT-RJ connector	1 ST connector (BFOC) 1 MT-RJ connector	2 MT-RJ connectors	
References		490 NOC 000 05	490 NOT 000 05	490 NOR 000 03	490 NOR 000 05



Access Points and Clients		Dual band industrial wireless LAN Access Point/Client based on IEEE 802.11a/b/g/h/i		Dual band industrial high performance wireless LAN Access Point/Client based on IEEE 802.11a/b/g/h/n	
Wireless standard		IEEE 802.11a/b/g/h/i	IEEE 802.11a/b/g/h/i	IEEE 802.11a/b/g/h/n	IEEE 802.11a/b/g/h/n
Operating frequencies		2.4GHz & 5GHz	2.4GHz & 5GHz	2.4GHz & 5GHz	2.4GHz & 5GHz
IP Rating		IP 40	IP 67	IP 40	IP 67
Mounting		Din Rail	Wall / Mast	Din Rail	Wall / Mast
Radios		Access Point: 2 Client: 1	2	1	1
Nominal Data rate		54 Mbps	54 Mbps	300 Mbps	300 Mbps
Antenna connections		4 x RP-SMA	4 x N-type	3 x RP-SMA	4 x N-type
Ethernet connections (10/100BASE-TX)		Access Points: 2 Client: 1	1	2	2
Wireless connections		2 x WLAN Interfaces 8 SSIDs per interface	2 x WLAN Interfaces 8 SSIDs per interface	1 x WLAN Interfaces 8 SSIDs per interface	1 x WLAN Interfaces 8 SSIDs per interface
References	Global	TCSGWA242	TCSGWA272	TCSNWA241	TCSNWA271
	North America (FCC approved)	TCSGWA242F	–	TCSNWA241F	TCSNWA271F
	Client only	TCSGWC241	–	–	–
	ATEX Compliant	–	–	–	TCSNWA2A1

Antennas		TSCG**** Compatible References (1)	TSCN**** Compatible References (1)
2.4 GHz	2.4 GHz Omni Directional (6dBi)	TCSWAB20	–
	2.4 GHz Directional (14dBi)	TCSWAB2D	–
	2.4 GHz Dual Slant (8dBi)	TCSWAB2S	TCSWAB2S
	Leaky Cable – 50 meter	TCSWABC5	–
	Leaky Cable – 100 meter	TCSWABC10	–
5 GHz	5 GHz Omni Directional (5dBi)	TCSWAB50	–
	5 GHz Directional – Medium (18.5dBi)	TCSWAB5D	–
	5 GHz Directional – Long (23dBi)	TCSWAB5V	TCSWAB5V
	5 GHz Directional – 802.11n (23dBi)	TCSWAB5VN	TCSWAB5VN
	5 GHz Dual Slant (9dBi)	TCSWAB5S	–
	5 GHz Directional – 802.11n (9dBi)	–	TCSWAB5DN
Dual Band	Dual Band Hemispherical (6dBi/8dBi)	TCSWABDH	–
	Dual Band Omni (3.5dBi/5.5dBi)	–	TCSWABDON

(1) Consult www.schneider-electric.com for a complete list of antenna cables and accessories for WiFi products

AS-Interface

Modicon interfaces for generic products

IP20 for mounting in enclosure



Modular interface, width 25 mm V2.1 with standard addressing	Analogue		Digital		
Number of inputs	2 (0...10V)	2 (0/4...20mA)	4	4	4 isolated
Number of outputs	—	—	4 relay, 2A	4 solid state, 0.5A	4 solid state, 0.5A
Type of addressing	Standard				
Supply by AS-Interface	Inputs and sensor supply (200 mA max.)				—
Supply by 24 VDC external source (black AUX cable)	—	—	—	Outputs	(2)
AS-Interface profile	S.7.3.F.D	S.7.3.F.D	S.7.0.F.E	S.7.0.F.E	S.7.0.F.E
Maximum consumption from AS-Interface (excluding sensor supply)	60 mA	60 mA	110 mA	50 mA	20 mA
Dimensions (WxDxH)	25x77x87 mm	25x77x87 mm	25x77x87 mm	25x77x87 mm	25x77x87 mm
References	ASI20MA2VU	ASI20MA2VI	ASI20MT4I4OR	ASI20MT4I4OS	ASI20MT4I4OSA
Accessory (1) for connection to flat cables	TCSATN01N2	TCSATN01N2	TCSATN01N2	TCSATV01N2	TCSATV01N2

(1) Or direct screw terminal connection (without accessory).

(2) Inputs, outputs and sensor supply (200 mA max.).



Modular interface, width 25 mm V2.1 with Extended (A/B) addressing	Digital				
Number of inputs	4	2	4	4	4 isolated
Number of outputs	—	1 triac, 2A	3 relay, 2A	3 solid state, 0.5A	3 solid state, 0.5A
Type of addressing	Extended (A/B)				
Supply by AS-Interface	Inputs and sensor supply (200 mA max.) (3)				—
Supply by 24 VDC external source (black AUX cable)	—	—	—	Outputs	(2)
AS-Interface profile	S.0.A.7.0	S.3.A.7.0	S.7.A.7.0	S.7.A.7.0	S.7.A.7.0
Maximum consumption from AS-Interface (excluding sensor supply)	50 mA	40 mA	90 mA	50 mA	20 mA
Dimensions (WxDxH)	25x77x87 mm	25x77x87 mm	25x77x87 mm	25x77x87 mm	25x77x87 mm
References	ASI20MT4IE	ASI20MT2I1OTE	ASI20MT4I3ORE	ASI20MT4I3OSE	ASI20MT4I3OSAE
Accessory (1) for connection to flat cables	TCSATN01N2	TCSATN01N2	TCSATN01N2	TCSATV01N2	TCSATV01N2

(1) Or direct screw terminal connection (without accessory).

(2) Inputs, outputs and sensor supply (200 mA max.).

(3) Except ASI20MT4I3ORE (170 mA max.).

IP67 for mounting on machine



Interface			Digital						
V2.1 with extended (A/B) addressing									
Number of inputs			4	2	–	4	4	4	8
Input cabling			Standard (1 x M12)				"Y" (2 x M12)		"Y" (4 x M12)
Number of outputs			–	2 solid-state, 2A	3 solid-state, 2A	3 solid-state, 2A	–	3 solid-state, 2A	–
Type of addressing			Extended (A/B)						
Supply by AS-Interface			Inputs and sensor supply (200 mA max. except ASI67FFP22*: 100 mA)						
Supply by 24 VDC external source (black AUX cable)			–	Outputs	–	Outputs	–	Outputs	–
AS-Interface profile			S.0.A.7.0	S.B.A.7.0	S.8.A.7.0	S.7.A.7.0	S.0.A.7.2	S.7.A.7.E	S.0.A.7.2 (2x)
Maximum consumption from AS-Interface (excluding sensor supply)			45 mA	32 mA	18 mA	48 mA	45 mA	48 mA	90 mA
Dimensions			45X42X80mm	45X42X80mm	45X42X80mm	60x30,5X151mm	45X42X80mm	60x30,5X151mm	60x30,5X151mm
Connection	IDC	Interface	ASI67FFP40E	ASI67FFP22E	ASI67FFP03E	ASI67FFP43E	ASI67FFP40EY	ASI67FFP43EY	ASI67FFP80EY
		Standard connection base	ASI67FFB01 (1)	ASI67FFB01 (1)	ASI67FFB01 (1)	ASI67FFB03	ASI67FFB01 (1)	ASI67FFB03	ASI67FFB03
	M12 connector	Interface + Connection base	ASI67FMP40E	ASI67FMP22E	ASI67FMP03E	ASI67FMP43E	ASI67FMP40EY	ASI67FMP43EY	–

(1) A connection base with fixing centres that are compatible with the ASIB4VM12 connection base is available. Reference **ASI67FFB02**.



Interface			Digital						
V2.1 with standard addressing									
Number of inputs			4	2	–	4	4	4	8
Input cabling			Standard (1 x M12)				"Y" (2 x M12)		"Y" (4 x M12)
Number of outputs			–	2 solid-state, 2A	4 solid-state, 2A	4 solid-state, 2A	4 solid-state, 2A	4 solid-state, 2A	–
Type of addressing			Standard						
Supply by AS-Interface			Inputs and sensor supply (200 mA max. except ASI67FFP22*: 100 mA)						
Supply by 24 VDC external source (black AUX cable)			–	Outputs	Outputs	Outputs	Outputs	Outputs	–
AS-Interface profile			S.0.0.F.E	S.3.0.F.E	S.8.0.F.E	S.7.0.F.E	S.7.1.F.E	S.0.1.F.F (2x)	
Maximum consumption from AS-Interface (excluding sensor supply)			45 mA	32 mA	19 mA	49 mA	49 mA	90 mA	
Dimensions (WxDxH)			45X42X80mm	45X42X80mm	45X42X80mm	60x30,5X151mm	60x30,5X151mm	60x30,5X151mm	
Connection	IDC	Interface	ASI67FFP40D	ASI67FFP22D	ASI67FFP04D	ASI67FFP44D	ASI67FFP44DY	ASI67FFP80DY	
		Standard connection base	ASI67FFB01 (1)	ASI67FFB01 (1)	ASI67FFB01 (1)	ASI67FFB03	ASI67FFB03	ASI67FFB03	
	M12 connector	Interface + Connection base	ASI67FMP40D	ASI67FMP22D	ASI67FMP04D	ASI67FMP44D	ASI67FMP44DY	–	

(1) A connection base with fixing centres that are compatible with the ASIB4VM12 connection base is available. Reference **ASI67FFB02**.



Interface			Digital			
V2.1 (V1 compatible) with standard addressing						
Number of inputs			4	2	–	4
Input cabling			Standard (1 x M12 input)			
Number of outputs			–	2 solid-state, 2A	4 solid-state, 2A	4 solid-state, 2A
Type of addressing			Standard			
Supply by AS-Interface			Inputs and sensor supply (200 mA max. except ASI67FFP22*: 100 mA)			
Supply by 24 VDC external source (black AUX cable)			–	Outputs	Outputs	Outputs
AS-Interface profile			S.0.0.F.F	S.3.0.F.F	S.8.0.F.F	S.7.0.F.F
Maximum consumption from AS-Interface (excluding sensor supply)			45 mA	32 mA	19 mA	49 mA
Dimensions			45x42x80 mm	45x42x80 mm	45x42x80 mm	60x30.5x151 mm
Connection	IDC	Interface	ASI67FFP40A	ASI67FFP22A	ASI67FFP04A	ASI67FFP44A
		Standard connection base	ASI67FFB01	ASI67FFB01	ASI67FFB01	ASI67FFB03

AS-Interface Dedicated components For control



TeSys U Control Starter Power base for D.O.L. Starter				Non reversing		Reversing	
Connection by screw clamp				Catalogue Number	Current Rating	Catalogue Number	Current Rating
Operational voltage	200/208 V	230/240 V	480 V				
Horse power ratings (CSA/UL ratings)	3	3	7.5	LUB12	12 A	LU2B12●●	12 A
	10	10	20	LUB32	32 A	LU2B32●●	32 A



TeSys U Control units advanced		class 10		class 20
Starting range	Clip-in mounting on power base	Catalogue Number (1)		
For motor type		three-phase	single-phase	three-phase
0.15-0.6	12 and 32	LUCBX6●●	LUCX6●●	LUCDX6●●
0.35-1.4	12 and 32	LUCB1X●●	LUCX1X●●	LUCD1X●●
1.25-5	12 and 32	LUCB05●●	LUCX05●●	LUCD05●●
3-12	12 and 32	LUCB12●●	LUCX12●●	LUCD12●●
4.5-18	32	LUCB18●●	LUCX18●●	LUCD18●●
8-32	32	LUCB32●●	LUCX32●●	LUCD32●●

(1) Basic catalogue number to be completed by adding the voltage from the table below.

Standard control circuit voltages			
Volts	24	48-72	110-240
dc	-	-	-
ac	Coil	-	-
dc or ac	S.7.D.F.0	ES (1)	FU (2)

(1) dc: 48-72 V, ac: 48 V.

(2) dc: 110-220 V, ac: 110-240 V.



Keypads and Control stations V1	TeSys Model U V2.1	
Type of addressing	Standard	Extended (A/B)
Supply by AS-Interface	-	-
Supply by external source (AUX)	Coil	Coil
AS-Interface profile	S.7.D.F.0	7.A.7.E
Maximum consumption from AS-Interface	30 mA/280 mA	30 mA
Dimensions (WxDxH)	Depending on LU model	depending on LU model
Catalogue numbers	ASILUFC5	ASILUFC51
Recommended accessory for connection to AS-Interface cable (4)		TCSATV01N2

For TeSysU information, please refer to catalogue #T8500CT0602EP R3.

(4) Or direct screw terminal connection to AS-Interface and external supply (AUX).

For dialogue



Control stations V2.1	Control stations with 2 pushbuttons		
	Black and white	Green and red	Green and red illuminated
Type of addressing	Extended (A/B)	Extended (A/B)	Extended (A/B)
Supply by AS-Interface	Buttons	Buttons	Buttons and pilot lights
Supply by external source (AUX)	–	–	–
AS-Interface profile	S.B.A.E.	S.B.A.E.	S.B.A.E.
Consumption from AS-Interface	< 45 mA	< 45 mA	< 80 mA
Dimensions (WxDxH)	68x62x118 mm	68x62x118 mm	68x65x118 mm
References	XALS2001H	XALS2002H	XALS2003H
Recommended accessory for connection to AS-Interface cable (5)	TCSATN011F1	TCSATN011F1	TCSATN011F1

(5) Or direct screw terminal connection to AS-Interface and external supply (AUX).



Interface (6) V2.1	For 2 control units and 2 pilot lights
Number of pages available	–
Number of inputs	2
Number of outputs	2 solid state, 0.5 A
Type of addressing	Standard
Supply by AS-Interface	Inputs and pilot lights
AS-Interface profile	S.B.A.E.
Maximum consumption from AS-Interface	80 mA
Dimensions (WxDxH)	52x15x38 mm
References	XALSZ1E

(6) Direct screw terminal connection to AS-Interface or by accessory for flat cable: TCSATN01N2.



Indicator banks, Ø 70 mm (9) V2.1	Base units and cover		Illuminated units		Audible unit
			"Flash" discharge tube	Steady light	
Type of addressing	Standard	Standard	–	–	–
Connection to AS-Interface cable and AUX (male M12 connector)	yes	yes, remote L=1m	–	–	–
Supply by AS-Interface	(7)	(7)	–	–	–
Supply by external source (AUX)	(7)	(7)	–	–	–
AS-Interface profile	S.7.F	S.7.F	–	–	–
Consumption from AS-Interface, supply by AS-Interface / external	250 / 30 mA	250 / 30 mA	–	–	–
Light source	–	–	5 Joule	LED	–
Buzzer	–	–	–	–	70...80 dB at 1m
References	XVBC21A	XVBC21B	XVBC6B● (8)	XVBC2B● (8)	XVBC9B
Recommended accessory for connection to AS-Interface cable & AUX	TCSATN011F1	TCSATN011F	–	–	–

(7) Illuminated units supplied by AS-Interface or externally, configurable by shunt.

(8) To complete the reference, replace the ● by the following number designating the colour: green: 3, red: 4, orange: 5, blue: 6, clear: 7, yellow: 8.

(9) To obtain a complete indicator bank, order a base unit + the illuminated or audible units (5 units maximum).

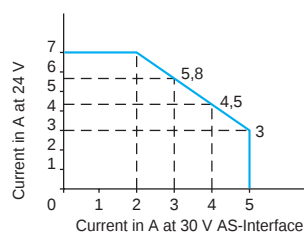
AS-Interface — Installation system

Master modules



Platform	Twido	Premium	Micro	Quantum	Ethernet GW
Maximum number of master modules per PLC	2	2, 4 or 8 depending on processor	1	8 (1)	—
Compatibility with AS-Interface interfaces and components	V1 / V2.1	V1 / V2.1	V1	V1	V1 / V2.1 / V3.0
Direct connection to AS-Interface cable	by terminal block	by terminal block	by terminal block	by terminal block	by terminal block
Maximum number of addresses	62	62	31	31	62
Type of addressing	Standard / Extended (A/B)	Standard / Extended (A/B)	Standard	Standard	Standard / Extended (A/B)
Compatibility with analogue interfaces	Yes	Yes	—	—	Yes
Compatibility with safety interfaces	Yes	Yes	Yes	Yes	Yes
AS-Interface profile	M.3	M.2.E	M.2	M.2	M.4
References	TWDNOI10M3	TSXSAY1000	TSXSAZ10	140EIA92100	TCSAGEA1SF13F

(1) 4 per local rack, 4 per remote I/O, 2 per distributed I/O.



Power supply units



Type of supply	AS-Interface		AS-Interface + Auxiliary
Input voltage	100...240 VAC	100...240 VAC	100...240 VAC
AS-Interface output voltage	30 VDC	30 VDC	30 VDC
Auxiliary output voltage	—	—	24 VDC
AS-Interface nominal power	73 W	146 W	73 W
Auxiliary nominal power	—	—	72 W
AS-Interface nominal current	2.4 A	4.8 A	2.4 A
AUX nominal current	—	—	3 A
Direct connection to AS-Interface cable	by terminal block	by terminal block	by terminal block
Dimensions (WxDxH)	54x120x120 mm	81x120x120 mm	81x120x120 mm
References	without earth fault detection	ASIABL3002	ASIABL3004
	with earth fault detection	ASIABLD3002	ASIABLD3004
			ASIABLM3024

(2) Power supply unit with constant maximum output, see curve above.

Insulation control relay



Type	For AS-Interface line
Degree of protection	IP20
Number of C/O contacts	2 relays, each with 1 N/O contact
Rated operational voltage	50 VDC
Dimensions (WxDxH)	90x58x76 mm
References	RM0PAS101 (3)

(3) Provided with an impedance adapter.

Cables, repeater and line extension



Type			Yellow AS-Interface cable	Black Auxiliary cable	Repeater (5)	Line Extension
Wire c.s.a.			2 x 1.5 mm ²	2 x 1.5 mm ²	–	–
References	Cable	L = 20 m	XZCB10201 (4)	XZCB10202 (4)	–	–
		L = 50 m	XZCB10501 (4)	XZCB10502 (4)	–	–
		L = 100 m	XZCB11001 (4)	XZCB11002 (4)	–	–
Reference of repeater			–	–	ASIRPT01	TCSARR011M

(4) Standard cable. For TPE cable (oil and vapour resistant) add the letter **H** to the end of the reference, example: XZCB10201 becomes **XZCB10201H**.

(5) Enables an AS-Interface network to be extended by 100 m. Direct connection to the AS-Interface yellow cable by IDC

Tap-offs for flat cable

(For connecting interfaces and components)



Connection to cable by IDC			AS-Interface IP67		AS-Interface + Auxiliary IP67	
Connection to the AS-Interface component			M12 connector (6)	Bared wires (7)	M12 connector (6)	Bared wires (8)
References	Cable	L = 1 m	TCSATN011F1	–	TCSATV011F1	–
		L = 2 m	TCSATN011F2	TCSATN01N2	TCSATV011F2	TCSATV01N2

(6) Female 5-pin M12 end connector, screw threaded for connection with M12 male connector.

(7) 2 x 0.34 mm² for product with terminal block.

(8) 4 x 0.34 mm² for product with terminal block.

7

T connectors

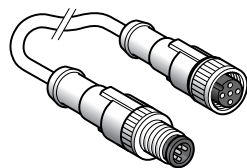


Connection to cable by IDC		T connector AS-Interface IP 67	Branch AS-Interface or Auxiliaires IP 67
Connection to the AS-Interface sensor or actuator		1 x M12 connector 5-pin female, screw threaded	Extension for 2 flat cables
References		TCSATN011F	TCSATN02V

AS-Interface

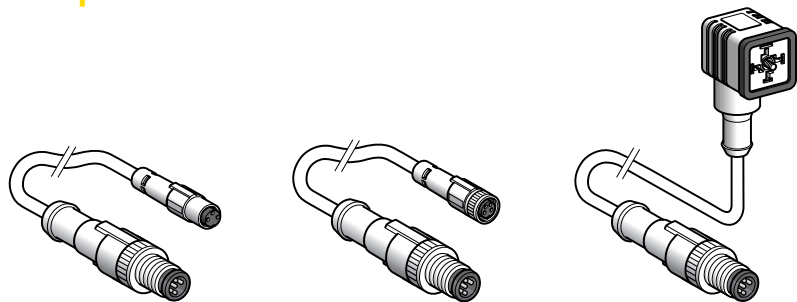
Installation system

Jumper cables M12 / M12



Type			Male / Female jumper cable		
Male connector type, interface side			M12, 3-pin, straight, screw thread.	M12, 4-pin, straight, screw thread.	M12, 5-pin, straight, screw thread.
Female connector type, sensor side			M12, 3-pin, straight, screw thread.	M12, 4-pin, straight, screw thread.	M12, 5-pin, straight, screw thread.
Cable			PUR, black	PUR, black	PUR, black
References	Cable	L = 1 m	XZCR1511040A1	XZCR1511041C1	XZCR1511064D1
		L = 2 m	XZCR1511040A2	XZCR1511041C2	XZCR1511064D2

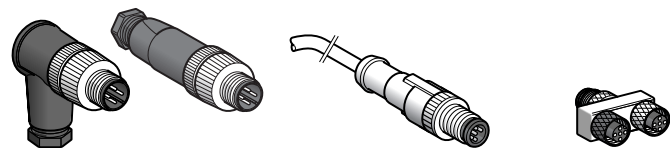
Jumper cables M12 / M8 or DIN



Type			Male / Female jumper cable		
Male connector type, interface side			M12, 3-pin, straight, screw thread.	M12, 3-pin, straight, screw thread.	M12, 3-pin, straight, screw thread.
Female connector type, sensor side			M8, 3-pin, straight (1)	M8, 3-pin, straight, screw thread.	DIN 43650A, elbowed, screw thrd.
Cable			PUR, black	PUR, black	PUR, black
References	Cable	L = 1 m	XZCR1501040G1	XZCR1509040H1	XZCR1523062K1
		L = 2 m	XZCR1501040G2	XZCR1509040H2	XZCR1523062K2

(1) Clip together connector.

Connectors, splitter box



Type		Connectors	Pre-wired connectors	Splitter box
Male connector type, interface side		M12, 4-pin	M12, 5-pin, straight, screw thread.	1 x M12, 5-pin, straight, screw thrd.
Female connector type, sensor side		–	–	2 x M12, 5-pin, straight, screw thrd.
Cable		–	PUR, black	–
References	Straight connector, screw thread.	XZCC12MDM40B	–	FTXCY1212
	Elbowed connector, screw thread.	XZCC12MCM40B	–	–
	Cable L = 0.5 m	–	XZCP1564L05	–
	Cable L = 2 m	–	XZCP1564L2	–

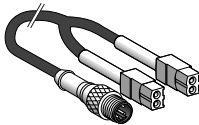
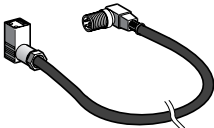
Tools

Adjustment and addressing terminals



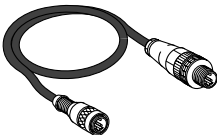
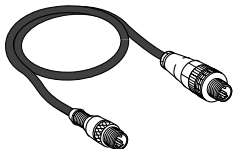
Display	25 mm LCD screen
Degree of protection	IP40
AS-Interface voltage / current measurement	yes
Addresses stored in memory	yes
Access to functions	direct by selector switch
Compatibility	V1/V2
Operating time	2500 addressing operations
References	ASITERV2
Reference with set of 7 leads + protective cover for terminal	ASITERV2SET

Addressing accessories for terminals ASITERV2 and XZMC11



Product connection	Infrared addressing	Socket
For products	ASISL...	ABE8... / APP1 / ASILUF... / XBZS43 / ASI20M
References	ASITERIR1	XZMG12

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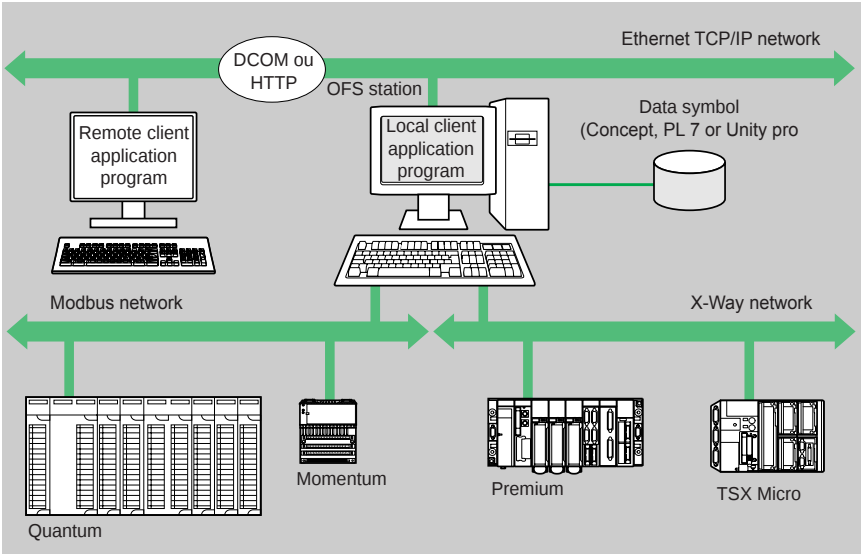


Product connection	M12, male	M12, female	Jack plug
For products	(2)	ASI67FMP XVB... / XAL... / LF...	ASI20M... / ASI67FFP...
References	ASITERACC1M	ASITERACC1F	ASITERACC

(2) Possibility to connect AS-Interface cable using T connector TCSATN011F.



Type	OPC data server	
	OFS Small	OFS Large
Items number	1000 items	Unlimited
OPC protocols	OPC DA	OPC DA, OPC XML DA,
References	Single station licence	TLX CD LU OFS
	10 stations licence	TLX CD LT OFS 33
	200 stations licence	TLX CD LF OFS 33



Description:
Based on the OPC protocols, Schneider-Electric's OFS software (**OPC Factory Server**) enables local or remote OPC client applications such as SCADA, supervisors or custom interfaces, to access Schneider devices and PLCs data in real time.

OFS software is a multi-device data server which provides simultaneous use of various communication protocols, and allows client applications to access control data via physical addresses or via symbols

- Supported devices :**
- Modicon Quantum, Premium, Micro, Compact and Momentum PLCs
 - TSX Series 7 and April Series 1000 Schneider-Electric PLCs
 - Serial Modbus or Uni-Telway devices connected via Schneider-Electric and Merlin Gerin gateways TSX ETG 10xx, EGX xxx ranges etc.

- Supported networks and protocols :**
- Modbus: Serial Modbus, Modbus Plus, Modbus TCP/IP.
 - XWAY/UNI-TE: Uni-Telway, FIPWAY, ETHWAY, ISAWAY, PCIWAY.

- Openess:**
OFS V3.3, integrates the most recent specifications of the OPC Foundation:
- **OPC-DA** (OPC Data Access)
 - **.NET API interface**
 - **OPC XML-DA V1.0** (OPC XML Data Access)

The development of specialized interfaces is even more easy and open.
Developers and System integrators can develop custom applications (in Visual Basic, VBA for Excel, C++, etc) requiring access to Schneider Electric control devices. The OPC XML-DA V1.0 interface is designed to provide an interface for Windows and non-Windows client applications and remote access via the Internet through firewalls.



FactoryCast modules for PLC

"Ready to use" diagnostic and monitoring functions embedded in a PLC module accessible remotely via a simple Internet browser:

- Real-time communication based on Ethernet TCP/IP (Modbus and Uni-TE)
- Secure access to the PLC system and application diagnostics
- Numerical or graphical data monitoring and control
- E-mail notifications
- Web server open to user customization and creation of Web pages for diagnostics suited to your needs
- Library of animated graphic objects
- Open communications using SOAP/XML protocol as a server interface (Web services)

FactoryCast HMI modules for PLC

Diagnostic functions identical as FactoryCast modules + Built-in HMI / SCADA functions embedded in a PLC module:

- Visualization of Unity Pro PLC program and Operator screens via Web pages
- PLC data acquisition
- Calculations scripts for data-processing Real-time database (1000 variables)
- Alarm and report notifications via E-mail
- Archiving of data directly into database servers (SQL, Oracle, MySQL)
- Data logging in CSV files in the module.
- Recipe management with read Database
- Dynamic HTML Reporting function
- Web server open to user Web pages customization
- Built-in Supervision via graphic screens and custom Web pages
- Data monitoring and Graphic monitoring (read/write)
- Library of animated graphic objects
- Open communication using SOAP/XML protocol as a server interface (Web services)

FactoryCast Gateways - ETG 1000 / 10.. modules

Cost-effective web gateways offer integrating in a stand-alone module:

- All Communications network interfaces: Ethernet TCP/IP, Modbus and Uni-Telway
- Remote access functions, RAS server,
- Transparent gateway / Router functions
- Notification of alarms via E-mail
- Data monitoring and Graphic monitoring (read/write)
- A user customizable Web server for creating an interface fully adapted to your needs
- Library of animated graphic objects

FactoryCast HMI Gateways - ETG 3000 / 30.. modules

"All in one" Web gateway module integrating in a stand-alone device:

- a built-in modem (PSTN or GSM/GPRS) depending on the reference
- Secured access : VPN, data encryption and IP filtering.
- A Remote Access server function (RAS)
- 2 Ethernet ports and a Modbus serial port
- Transparent gateway router functions NAT to Ethernet or Modbus serial devices
- I/O card : 6 discrete inputs/ 2 discrete outputs
- Operating temperature : -25°C to +75°C
- User customizable Web server
- Built-in Supervision via graphic screens and custom Web pages
- Data monitoring and Graphic monitoring (read/write)
- Data Acquisition, Data Processing and Data logging in the module (CSV files)
- Archiving of data directly into database servers (SQL, Oracle, MySQL)
- Alarms and reports via E-mail / SMS
- Open communication using SOAP/XML protocol as a server interface



Embedded in the TCP/IP communication modules for Modicon M340, Premium and Quantum PLCs, FactoryCast Web servers provide secured access to the diagnostics, monitoring and maintenance functions of your automation installations via a simple web browser.



In the areas of distributed infrastructures, transport, RTU installations, industry and machines, ETG 1000 / 3000 modules more than satisfy your requirements for remote diagnostics and maintenance, remote monitoring and control, and remote programming.



Applications		Web Server modules for PLCs							
		FactoryCast				FactoryCast HMI			
Target devices	Type	TSX Micro PLCs	Modicon M340 PLCs	Modicon Premium PLCs	Modicon Quantum PLCs	Modicon Premium PLCs	Modicon Quantum PLCs		
Network & Remote access services	Remote access	Intranet or via external RAS/modem							
		Remote programming, downloading via FTP, access to Web server via Internet browser							
	Gateway function	–							
	Serial protocols	–							
	Ethernet protocols	Modbus TCP, Uni-TE	Modbus TCP	Modbus TCP, Uni-TE	Modbus TCP	Modbus TCP, Uni-TE	Modbus TCP		
	TCP/IP protocols	BootP/DHCP, DNS, SNMP agent, SMTP client, NTP client, FTP							
	Security	Protection by IP address filtering and passwords							
Web server	Characteristics	HTTP and FTP server, 8 Mb memory available for user, hosting of user Web pages and documents (Doc, Pdf, Excel)							
Predefined services	Configuration	Via Web Designer software or predefined Web pages							
	Diagnostics	System, rack and PLC I/O diagnostics via predefined Web pages							
	Monitoring of variables	Monitoring of devices and application via animated data (read/write variables)							
	Alarm management	PLCs and applications alarms monitoring via predefined Web pages							
Customizable services	Graphic views	Graphic monitoring via animated pages (integrated graphic editor)							
	Unity Pro operator screen	–					Display in the form of Web pages		
Advanced services and HMI	User Web pages	Graphic monitoring via animated Web pages created by the user							
	Calculation scripts	–					Arithmetic and logical scripts		
	E-mail service	Alarm notification by E-mail							
	Data logging	–					Data logging in the module with time stamping (CSV files)		
	Database connection	–					Direct logging in an SQL, Oracle, MySQL database servers		
	Report service	–					Dynamic HTML report management		
	Recipe service	–					Management of “Recipe” data (storage and read locally or on remote database)		
	PLC programme visualization by Web page	–					All the languages supported by Unity Pro, are accessible by Web page on Runtime, without Unity Pro		

Application development software

Web Designer

Supplied with each module



References

TSXETZ510 BMXNOE0110 TSXETY5103 140NOE77111 TSXWMY100 140NWM10000

FactoryCast Gateway

Web Gateways for Remote control



Standalone Gateway, Web Server for Remote Access			
FactoryCast Gateway ETG 10●0		FactoryCast HMI Gateway ETG30●●	
All equipment supporting Modbus	All equipment supporting Uni-Telway	All Modicon PLCs and third-party equipment supporting Modbus	
Intranet or via external Modem, integrated RAS function		Intranet or Modem External modem, integrated RAS	Intranet or Modem Integrated PSTN/RTC/GSM modem and RAS modem, NAT
Remote programming, downloading via FTP, access to Web server via Internet browser			
Ethernet to Modbus serial Modem to Modbus serial and Ethernet	Ethernet to Uni-Telway serial Modem to Uni-Telway and Ethernet	Ethernet to Modbus serial Modem to Modbus serial and Ethernet (Modbus, UNITE)	
Modbus (Master)	Uni-Telway (Slave)	Modbus (Master)	
Modbus TCP	Modbus TCP, Uni-TE (Modicon Premium, Modicon TSX Micro)	Modbus TCP Uni-TE TCP	
BootP/DHCP, SNMP agent, SMTP client, NTP client, FTP		DHCP, DNS, SNMP agent, SMTP client, NTP client, FTP	
Protection by IP address filtering and password		Protection by IP address filtering and password + Tunnels VPN & encryption of the datas.	
HTTP and FTP server, 8 Mb memory available for user, hosting of user Web pages and documents (Doc, Pdf, Excel)		HTTP and FTP server, 32 Mb memory available for user Web pages, memory extension using Compact Flash cards 1 Gb max., hosting of user Web pages and documents (Doc, Pdf, Excel)	
Via Web Designer software or predefined Web pages			
Diagnostics of serial devices via predefined Web pages		Network diagnostics, diagnostics of serial devices and Ethernet via predefined Web pages	
Monitoring of devices and application via data tables (read/write variables)			
Via E-mail		Via E-mail/SMS	
Graphic monitoring via animated views (integrated graphic editor)			
—			
Graphic monitoring via animated Web pages created by the user			
—		Arithmetic and logical scripts	
Alarm notification by E-mail		Alarm notification by E-mail/SMS	
—		Data logging in the module with time stamping (CSV files)	
—		Direct recording in SQL, Oracle, MySQL database servers	
—		Dynamic HTML report management	
—		Management of “Recipe” data (storage and revad locally or on remote database)	
—		—	

Web Designer

Supplied with each module



TSXETG1000	TSXETG1010	TSXETG3000	TSXETG3010 (Modem RTC)	TSXETG3021 Modem GSM/GPRS (Bands 900/1800MHz) TSXETG3022 Modem GSM/GPRS (Bands 850/1900 MHz)
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