

8 | Networks connectivity and Web servers



WARNING

This document is a selection of the top selling products.

ConneXium 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	
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)	–	–
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				
Dimensions	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)	–	–	–	–
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, CE, 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	IP 20					
Dimensions W x H x D	47 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			TCS ESM 043F1CU0	TCS ESM 043F2CU0	TCS ESM 043F1CS0	TCS ESM 043F2CS0

(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, 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), CE, GL, C-TICK			
References			TCS ESM 043F23F0	TCS ESM 083F23F0

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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	TCSESM 083F2CU0	TCSESM 083F1CS0	TCSESM 083F2CS0		

- (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, managed	Copper twisted pair and fiber optic, managed	Copper twisted pair and fiber optic, managed	
Interfaces	Copper cable ports	Number and type	16 x 10/100BASE-TX ports	14 x 10/100BASE-TX ports	22 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	-	2 x 100BASE-FX 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)
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		cUL 60950, UL 508 and CSA 142, UL 1604 and CSA 213 Class 1 Division 2, CE, GL, C-TICK				
References		TCSESM 163F23F0	TCSESM 163F2CU0	TCSESM 243F2CU0		

- (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 Spanning 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).



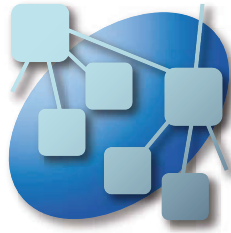
Type of gateway		TSX ETG 100	
Transparent Ready services	Class	B10	
	Standard Web services	Configuration	Predefined Web pages
		Read/Write	Acces to connected products list, reading of Modbus devices registers
		Diagnostic	Via predefined Web pages : diagnostic on Ethernet and Modbus links
	Ethernet TCP/IP 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, CE	
Reference		TSX ETG 100 (1)	

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



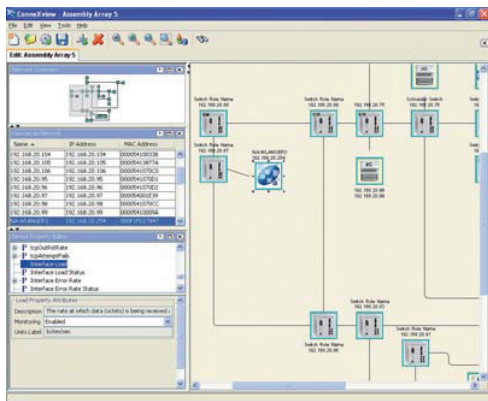
Type of gateway		Ethernet/Modbus Plus gateway/router Class B10	
Transparent Ready services	Class	B10	
	Standard Web services	Configuration	Predefined Web pages
		Read/Write	Acces to connected products list, reading of Modbus Plus devices registers
		Diagnostic	Via predefined Web pages : diagnostic on 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
	Serial port	Max. distances	100 m (327 ft)
		Type	1 x Modbus Plus
		Shielded connectors	9-way SUB-D connector
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, CE	
Reference		174 CEV 200 40 (2)	

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



Introduction

ConneXview is a user friendly software tool used to diagnose industrial Ethernet networks. It provides a very easy and intuitive interface for network operators and maintenance personnel, plus a set of features and advanced functions that are of great value to system integrators and controls engineers.



Product features and functions

Automatic discovery of connected devices

ConneXview performs an automatic discovery of IP devices connected on an Ethernet network and then automatically maps the network topology and devices, providing a green/ yellow/ red color coding of links and devices to enable users to quickly evaluate the status of the network.

Client/ server architecture

ConneXview v2.0 now provides a client/ server architecture, giving you the ability to monitor your network, make routine checks on performance and troubleshoot problems, from anywhere you have access to a PC and a browser.

Alarm Notification

In the event of an alarm, you can choose to be automatically notified by eMail, pager or text message, and even get a list of all alarms and their severity.

Network Assistant

The Network Assistant is a context-sensitive help file containing topics describing every network alarm and warning reported by ConneXview. Selecting an alarm and clicking on the help button will launch the Network Assistant where you will find the alarm text message, a definition of the alarm, a list of the possible causes of the alarm, and a series of recommended actions to clear the alarm.

Device Type Editor (DTE)

ConneXview has a device-type library that enables it to identify a large number of Schneider devices. The DTE can also be used to add 3rd party devices that are not already in the library.

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Product References

ConneXview	Server Single License	TCSEAZ01PSFM20S
	Client Single License	TCSEAZ01PSFM20C
Subscription services	Single Server Subscription	TCSEAZ01PSSM20S
	Single Client Subscription	TCSEAZ01PSSM20C

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	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 ST connector (BFOC)	2 MT-RJ connectors	
		1 MT-RJ connector	1 MT-RJ connector		
References		490 NOC 000 05	490 NOT 000 05	490 NOR 000 03	490 NOR 000 05



Modular interface, width 25 mm V2.1 with standard addressing	Analogue		Digital		
	Number of inputs	2 (0...10V)	2 (0/4...20mA)	4	4
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
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 (WxDxH)			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	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	–			
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	–			
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**.



8

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 (WxDxH)			45x42x80 mm	45x42x80 mm	45x42x80 mm	60x30,5x151 mm
Connection	IDC	Interface	ASI67FFP40A	ASI67FFP22A	ASI67FFP04A	ASI67FFP44A
		Standard connection base	ASI67FFB01	ASI67FFB01	ASI67FFB01	ASI67FFB03



Starter in insulated enclosure (1) V1		Control by	
		Black rotary knob (blue bkgnd.)	Pushbuttons
Type of addressing		Standard	
Supply by AS-Interface		Inputs, sensor supply (2)	
Supply by 24 VDC external source (black AUX cable)		(2)	
AS-Interface profile		S.7.F.F. (LF3....) / S.7.A.7.0. (LF4....)	
Maximum consumption from AS-Interface		20 mA	
Dimensions (WxDxH)		175x175x195 mm	
References (3) (see table below)	Non reversing	LF3P●●D	LF3M●●D
	Reversing	LF4P●●D	LF4M●●D

Connection to AS-Interface and external supply (AUX) by accessory for flat cable: **TCSATN011F1** (AS-Interface and AUX cables) or **TCSATV011F1** (AS-Interface cable).

(1) For an LF3 or LF4 starter in a metal enclosure, add the letter **M** after the 3rd digit in the references listed above (example: LF3P02D becomes **LF3MP02D**).

(2) Contactors supplied by AS-Interface or external source, configurable directly on terminal block.

(3) To complete the reference, replace ●● by the numbers indicated in the table below. (Example: LF3P●●D becomes LF3P00D).

kW	A	●●	kW	A	●●
–	without MCB	00	0.75	1.6...2.5	07
0.06	0.16...0.25	02	1.1 / 1.5	2.5...4	08
0.09	0.25...0.40	03	2.2	4...6.3	10
0.12 / 0.18	0.40...0.63	04	3 / 4	6...10	14
0.25	0.63...1	05	5.5	9...14	16
0.37/ 0.55	1...1.6	06			

kW= Motor power ratings in category AC-3, 400/415V, in kilowatts.

A= Adjustable range of circuit-breaker thermal trips, in amperes.



Communication interface for V2.1		TeSys U	
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	30 mA
Dimensions (WxDxH)		depending on LU model	depending on LU model
References		ASILUFC5	ASILUFC51
Recommended accessory for connection to AS-Interface cable (4)		TCSATV01N2	TCSATV01N2

(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
	Standard	Standard	"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.

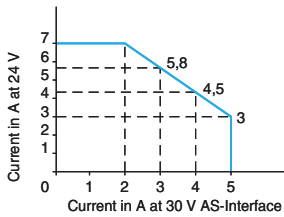
(8) To complete the reference, replace the ● by the following number designating the colour: green: 3, red: 4, orange: 5, blue: 6, clear: 7, yellow: 8.

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



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	TWDOI10M3	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 with earth fault detection	ASIABL3002 ASIABLD3002	ASIABL3004 ASIABLD3004 –

(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)
References	Cable L = 1 m	TCSATN011F1
	L = 2 m	TCSATN011F2
	TCSATN01N2	TCSATV011F1
		TCSATV011F2
		TCSATV01N2

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

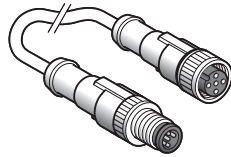
(7) 2 x 0.34 mm² for product with terminal block.

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

T connectors

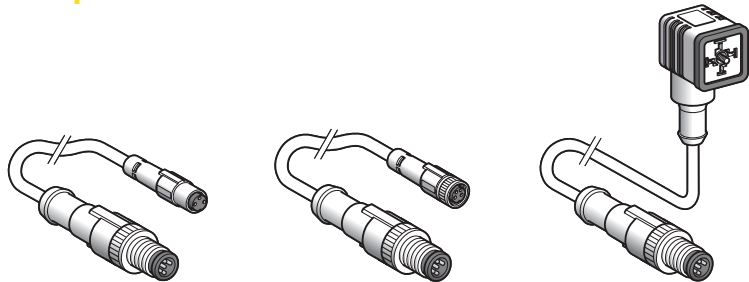


Connection to cable by IDC	T connector AS-Interface IP 67	Branch AS-Interface or Auxiliaires IP 67
Connection to the AS-Interface sensor or actuator	1 x M12 connector 5-pin female, screw threaded	Extension for 2 flat cables
References	TCSATN011F	TCSATN02V



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

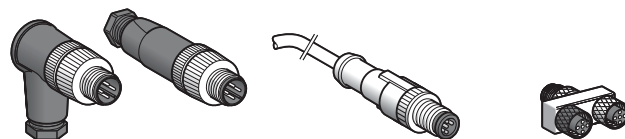
Jumper cables M12 / M8 or DIN



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	–

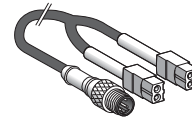
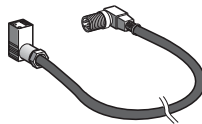
Tools

Adjustment and addressing terminals

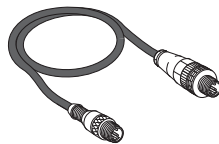


Display	25 mm LCD screen
Degree of protection	IP40
AS-Interface voltage / current measurement	yes
Addresses stored in memory	yes
Access to functions	direct by selector switch
Compatibility	V1/V2
Operating time	2500 addressing operations
References	ASITERV2
Reference with set of 7 leads + protective cover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

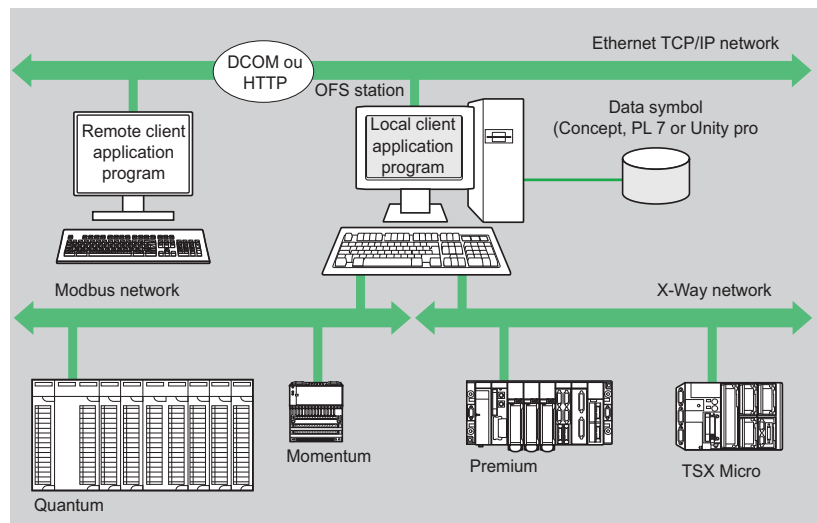


Product connection	M12, male	M12, female	Jack plug
For products	(2)	ASI67FMP XVB... / XAL... / LF...	ASI20M... / ASI67FFP...
References	ASITERACC1M	ASITERACC1F	ASITERACC

(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 10 stations licence 200 stations licence	TLX CD SU OFS 33 TLX CD ST OFS 33 -
		TLX CD LU OFS TLX CD LT OFS 33 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.

Opens:

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.





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.

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



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.

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



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					
Web server	Security	Protection by IP address filtering and passwords					
	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	
	User Web pages	Graphic monitoring via animated Web pages created by the user					
Advanced services and HMI	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	

8

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)			
-		Arithmetic and logical scripts	
Graphic monitoring via animated Web pages created by the user		Alarm notification by E-mail/SMS	
Alarm notification by E-mail		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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