

Control, remote control, indication

EcoStruxure I/O Smart Link



A9XMSB11_image-08



DB404502



IEC/EN 61010-2-201

The EcoStruxure I/O Smart Link is an open system that remotely measures, monitors and controls final distribution

It is designed to fit into tertiary building projects and integrates perfectly in a Building Management System or an Energy Management System.

Functions

Transmission of data collected by Acti9 switchgear assemblies

- Circuit breakers, residual current circuit breakers, residual current devices:
 - open/closed state, tripped state,
 - number of opening/closing cycles,
 - number of tripping actions.
- Contactors, impulse relays, Reflex iC60:
 - opening and closing control,
 - open/closed state,
 - number of opening/closing cycles,
 - total period of operation of the load (device closed).
- Remote controlled circuit breaker/Reflex iC60:
 - opening control,
 - closing control,
 - contactor open/closed state,
 - circuit breaker open/closed state,
 - number of opening/closing cycles,
 - total period of operation of the load.
- Pulse meters (energy, water, gas, etc.):
 - number of pulses recorded,
 - pulse value setting (default: 10 Wh),
 - total consumption recorded,
 - possibility of resetting energy meters.
- Standard digital inputs/outputs.

All the data are stored in memory: number of cycles, consumption, period of operation, even in the event of a power interruption.

EcoStruxure I/O Smart Link can also exchange data with any device having 24 V DC digital inputs/outputs (e.g. low-level contacts 29452 for position of the ComPacT NSX).

No configuration of the products connected to the Ti24 channels is required.

At power up, EcoStruxure I/O Smart Link adapts automatically to the communication parameters of the Modbus Client (PLC, supervisor, etc.).

Installation

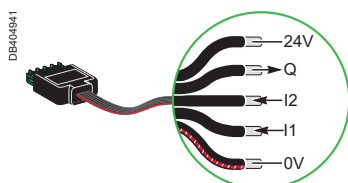
- Assembly in switchboards:
 - width 24 modules per row,
 - minimum spacing between rails 150 mm.
- Mounting on
 - DIN rail, with mounting kit **A9XMFA04**,
 - Linergy FM 80 A, with bolts provided,
 - Linergy FM 200 A, with mounting kit **A9XM2B04**,
 - back of enclosure with mounting kit **A9XMBP02**,
 - Installation in Pragma and Kaedra enclosures with mounting kit **A9XMVA01**.

Test

- The communication and cabling test for the connected devices can be performed using EcoStruxure Panel Server gateway webpages or using EcoStruxure Power commissioning.

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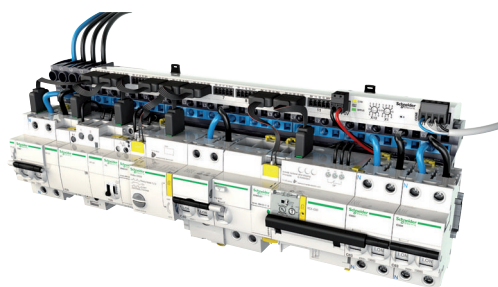
EcoStruxure I/O Smart Link (cont.)



A9XCAU06 and A9XCAC01

Catalog numbers

EcoStruxure I/O Smart Link				
Type		Set of		
EcoStruxure I/O Smart Link		1	A9XMSB11	
Supplied with	Modbus connector	1		
	24 V DC power supply connector	1		
	Locking clips for mounting on Linergy FM 80	2		
Accessories				
Prefabricated cables				
PB107754-12	With 2 connectors	100 mm	6	A9XCAS06
		160 mm	6	A9XCAM06
		450 mm	6	A9XCAH06
		870 mm	6	A9XCAL06
PB107755-5	With 1 connector	870 mm	6	A9XCAU06
		4000 mm	1	A9XCAC01
PB107756-7	Connectors	5-pin connectors (Ti24)	12	A9XC2412
	Mounting kit	DIN rail (4 feet, 4 straps, 4 adapters)	1	A9XMFA04
		Linergy FM 200 A (4 adapters)	1	A9XM2B04
		Back of enclosure (2 brackets)	1	A9XMBP02
		Vertical for Kaedra enclosures	1	A9XMVA01
		Vertical or horizontal for Pragma enclosures		
	Spare parts	Lock for Linergy FM 80 A (2 bolts)	1	A9XMLA02

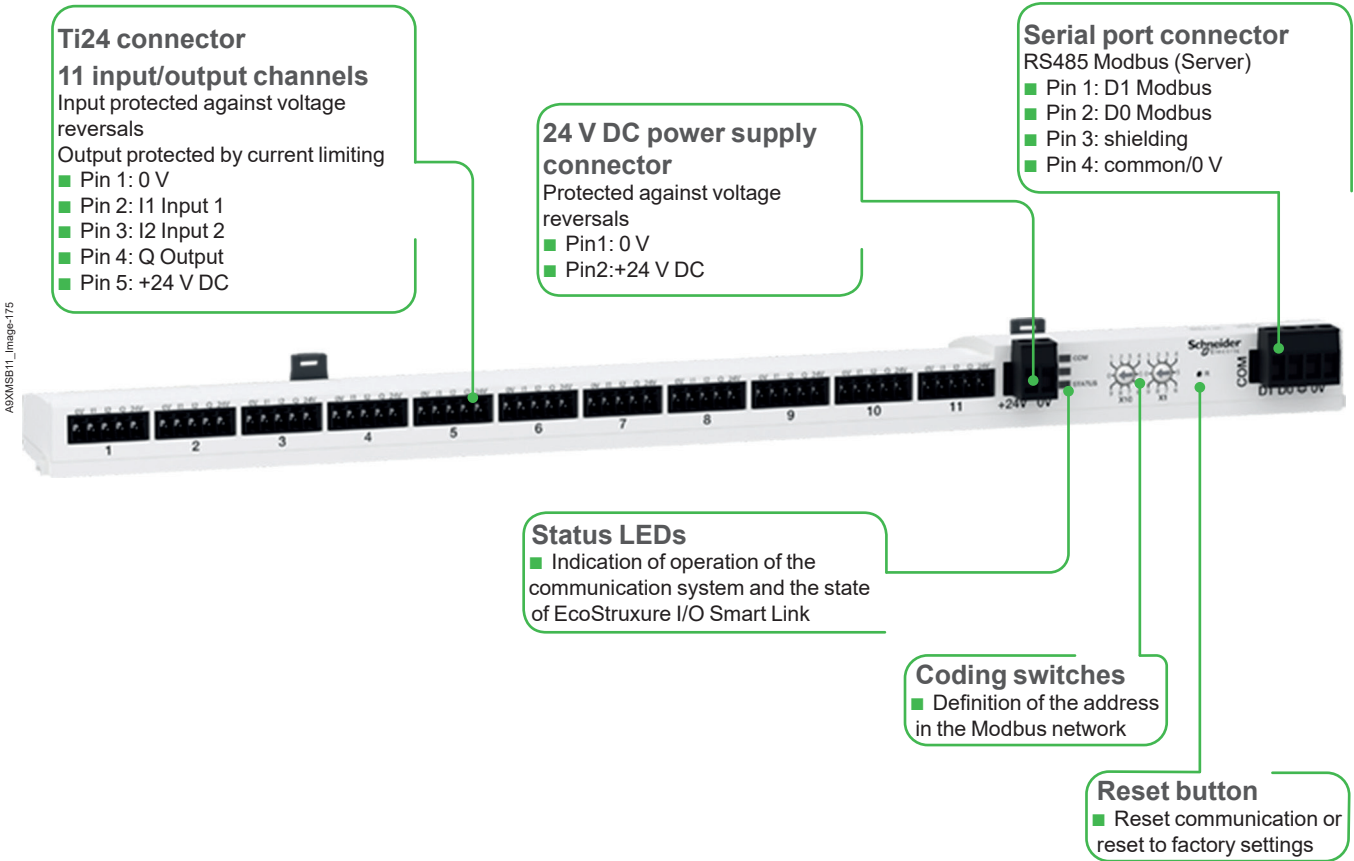


Connectable devices

With Ti24 interface		
Type	Reference	Description
iACT24	A9C15924	Low-level control and indication auxiliary for iCT contactors
iATL24	A9C15424	Low-level control and indication auxiliary for iTL impulse relays
iOF+SD24	A9A26897	Low-level indication auxiliary for iC60, iID, ARA, RCA, iSW-NA
	A9A26898	
OF+SD24	A9N26899	Low-level indication auxiliary for C60, C120, DPN, RCCB/iD, C60H-DC
RCA	See cat. module CA904011	Remote control with Ti24 interface
Reflex iC60	See cat. module CA904012	Reflex iC60 with Ti24 interface
Without Ti24 interface		
Power meters with pulse output, e.g. IEM2000T		
Impulse meters complying with the IEC 62053-21 standard		
24 V DC indicator lamps, Harmony XVL range		
All loads not exceeding 100 mA, 24 V DC		
Light sensitive switches: example IC2000		
Timers, thermostats, time switches, load shedding devices		
All 24 V DC auxiliary contacts, IEC 61131-2 type 1		

EcoStruxure I/O Smart Link (cont.)

EcoStruxure I/O Smart Link



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Control, remote control, indication

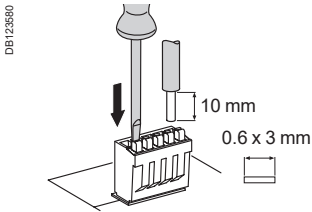
EcoStruxure I/O Smart Link (cont.)

Technical characteristics

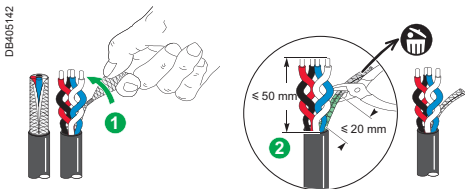
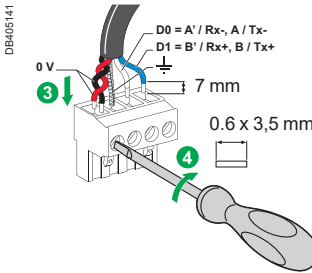
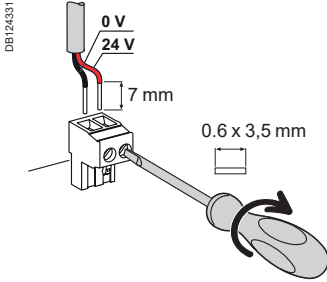
Power supply		
Rated		24 V DC \pm 20 %
Maximum input current		1.5 A
Maximum inrush current		7 A
Meter		
Capacity		2 ³² pulses per input
Input characteristics		
Number of channels		11 of 2-input channels
Type of input		Current collector Type 1 IEC 61131-2
Maximum cable length		500 m
Rated voltage		24 V DC
Voltage limits		24 V DC \pm 20 %
Rated current		3 mA
Maximum current		5 mA
Filtering time	In state 1	2 ms
	In state 0	2 ms
Isolation		No isolation between channels
Negative sequence voltage protection		Yes
Output characteristics		
Number of output channels		11
Type of output		24 V DC 0.1 A current source
Maximum cable length		500 m
Rated voltage	Voltage	24 V DC
	Maximum current	100 mA
Filtering time	In state 1	2 ms
	In state 0	2 ms
Voltage drop (voltage in state 1)		1 V max
Maximum inrush current		500 mA
Leakage current		0.1 mA
Overvoltage protection		33 V DC
Environmental characteristics		
Temperature	Operating	-25°C ... +60°C (if vertical mounting, limited to 50°C)
	Storage	-40°C ... +85°C
Tropicalization		Treatment 2 (relative humidity of 93% at 40°C)
Resistance to voltage dips		10 ms, class 3 as per IEC 61000-4-29
Degree of protection		IP20
Pollution degree		3
Altitude	Operating	0 ... 2000 m
Immunity to electrostatic discharge	As per IEC 61000-4-2	Air: 8 kV Contact: 4 kV
Immunity to radiated magnetic fields	As per IEC 61000-4-3	10 V/m - 80 MHz to 3 GHz 3 V/m - 1.4 GHz to 6 GHz
Immunity to fast transients	As per IEC 61000-4-4	1 kV for inputs/outputs and Modbus communication. 2 kV for 24 DC power supply - 5 kHz - 100 kHz
Immunity to conducted magnetic fields	As per IEC 61000-4-6	10 V from 150 kHz to 80 MHz
Surge	As per IEC 61000-4-5	Power Supply: 1 kV DM coupling 42 Ω ; 2kV CM coupling 42 Ω Modbus : 1 kV CM coupling 2 Ω
Conducted emissions	As per IEC 61326-1, CISPR 11	Class B (0.15 ... 30 MHz)
Radiated emissions	As per IEC 61326-1, CISPR 11	Class B (30 ... 6000 MHz)
Salt spray test	As per IEC 60068.2.52	Severity 2
Environment		In compliance with the RoHS directive
Additional characteristics		
Duration of saving memory		10 years
Prefabricated cables characteristics		
Dielectric resistance		1 kV / 5 min
Minimum draw-out resistance		20 N
Modbus Serial Link		
Link		Modbus, RTU, RS485 serial connection
Transmission	Transfer rate	Self-adaptable to 4800 bps, 9600 bps, 19200 bps or 38400 bps
	Medium	Shielded cable, double twisted pair
Protocol		Client/Server
Type of device		Server
Modbus addressing range		1 to 99
Maximum length of the bus		1000 m
Type of bus connector		4-pin connector

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Connection

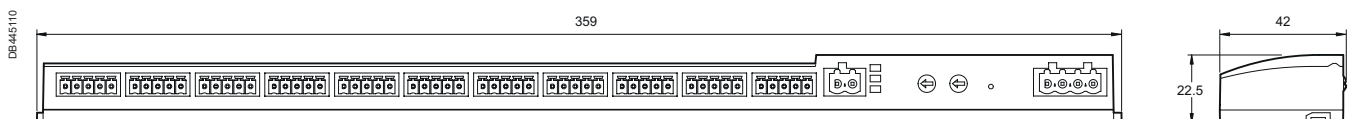


Connector cat. no: A9XC2412



Terminal	Tightening torque	Copper cables		
		Rigid	Flexible	Flexible with ferrule
Ti24 interface	Spring loaded connector	DB123545 	DB123553 	DB123554
Power supply connector	0.5 to 0.6 N.m	0.2 to 2.5 mm ²	0.2 to 2.5 mm ²	0.2 to 2.5 mm ²
Modbus connector	0.5 to 0.6 N.m	0.2 to 2.5 mm ²	0.2 to 2.5 mm ²	0.25 to 2.5 mm ²

Dimensions (mm)



Weight (g)

EcoStruxure I/O Smart Link	
Type	
EcoStruxure I/O Smart Link	188



1.0	10/10/2023	Creation	I. Flaubert
Indice	Date	Modification	Name