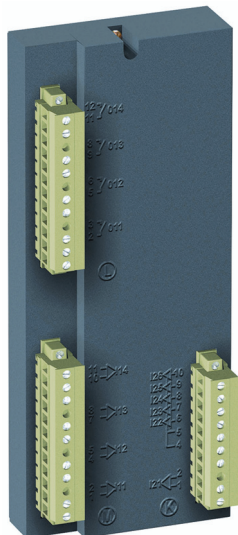


Instruction Bulletin

MES114 Input/Output Module Installation Sheet

Retain for future use.

Introduction



The four outputs included on the Sepam™ Series 20 and 40 base units can be extended by adding an optional MES114 input/output module, available in three different versions:

Module Name	Number of Inputs	Number of Outputs	Voltage
MES114	10	4	24–48 V DC
MES114E	10	4	110–125 V AC or V DC
MES114F	10	4	220–250 V AC or V DC

Identification

Each MES114 module is delivered in a separate package containing:

- 1 MES114 Input/Output Module
- 1 Installation Sheet

NOTE: For further information, please see the *Sepam Series 20 Installation Manual* (63230-216-208), or *Sepam Series 40 Installation Manual* (63230-216-219).

Characteristics

MES114 Module Universal Characteristics

Weight	0.617 lb (0.28 kg)
Operating Temperature	-13° to +158° F (-25° to +70° C)
Environmental Characteristics	Same characteristics as Sepam™ base units

	MES114	MES114E	MES114F			
Logic Inputs						
Voltage	24–48 V DC	110–125 V DC	110 V AC	220–250 V DC	220–240 V AC	
Range	19.2–275 V DC	88–150 V DC	88–132 V AC	176–275 V DC	176–264 V AC	
Frequency	—	—	47–63 Hz	—	47–63 Hz	
Typical Burden	3 mA	3 mA	3 mA	3 mA	3 mA	
Typical Switching Threshold	14 V DC	82 V DC	58 V AC	154 V DC	120 V AC	
Input Limit Voltage	At state 1	≥ 19 V DC	≥ 88 V DC	≥ 88 V AC	≥ 176 V DC	≥ 176 V AC
	At state 0	≤ 6 V DC	≤ 75 V DC	≤ 22 V AC	≤ 137 V DC	≤ 48 V AC
Isolation of inputs from other isolated groups	Enhanced	Enhanced	Enhanced	Enhanced	Enhanced	
Control Relay Output O11 ¹						
Voltage	DC	24/48 V DC	127 V DC	220 V DC		
	AC (47.5–63 Hz)				100–240 V AC	
Continuous Current		8 A	8 A	8 A	8 A	
Breaking Capacity	Resistive Load	8/4 A	0.7 A	0.3 A	8 A	
	L/R Load < 20 ms	6/2 A	0.5 A	0.2 A		
	L/R Load < 40 ms	4/1 A	0.2 A	0.1 A		
Making Capacity		< 15 A for 200 ms				
Isolation of outputs from other isolated groups	Enhanced					
Annunciation Relay Output O12–O14						
Voltage	DC	24/48 V DC	125 V DC	250 V DC		
	AC (47.5–63 Hz)				100–240 V AC	
Continuous Current		2 A	2 A	2 A	2 A	
Breaking Capacity	L/R load < 20 ms	2/1 A	0.5 A	0.15 A		
	p.f. load > 0.3				1 A	
Making Capacity		< 15 A for 200 ms				
Isolation of outputs in relation to other isolated groups	Enhanced					

¹ Relay output complies with clause 6.7 of standard C37.90 (30 A, 200 ms, 2000 operations).

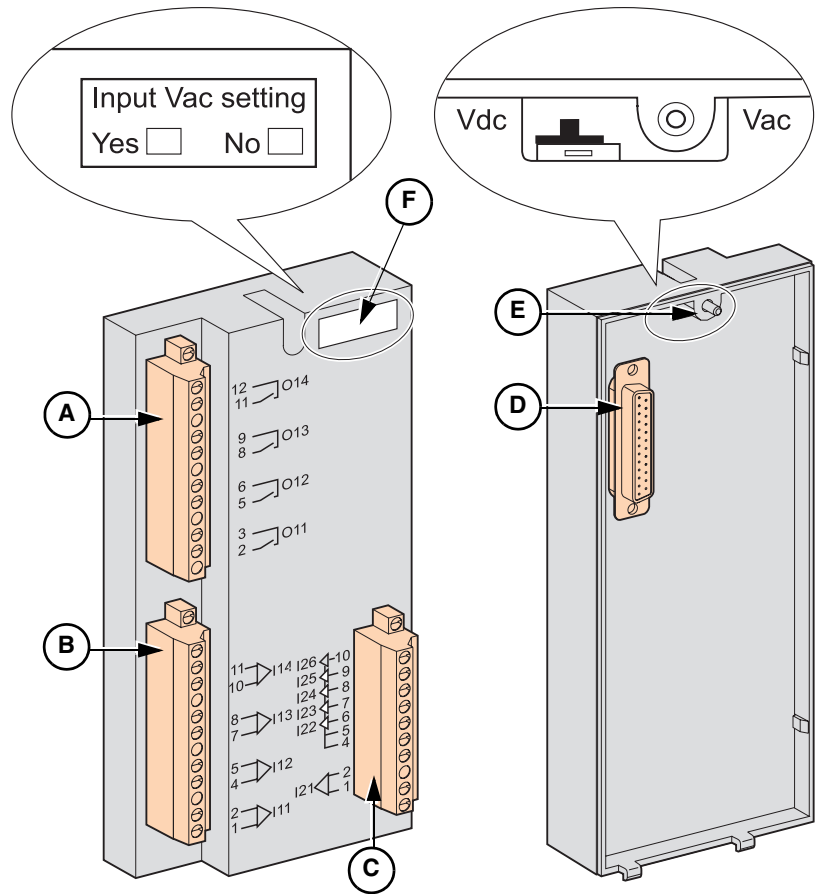
Description

A, B, and C are removable, lockable screw-type connectors

- A. Connectors for four relay outputs
 - O11: One control relay output
 - O12–O14: Three annunciation relay outputs
- B. Connectors for four independent logic inputs
 - I11–I14
- C. Connectors for six logic inputs
 - I21: One independent logic input
 - I22–I26: Five common point logic inputs

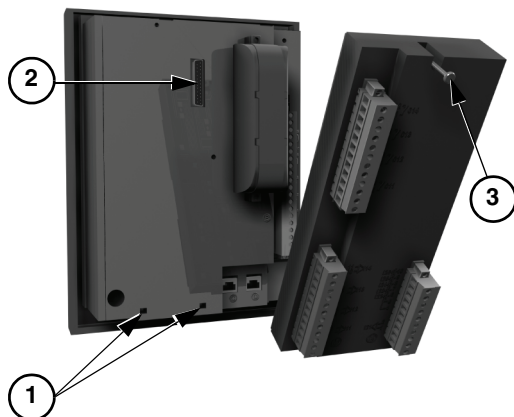
Also, in the diagram to the right

- D. 25-pin sub-D connector
 - Connects the module to the base unit
- E. Voltage selector switch for MES114E and MES114F module inputs
 - Set to V DC for DC voltage inputs (default setting)
 - Set to V AC for AC voltage inputs
- F. Label
 - Indicates the chosen parameter settings for MES114E and MES114F input voltages



The parameter setting status can be accessed via the Sepam™ Diagnosis screen of the SFT2841 Setting and Operating software. Access the parameter settings for the AC voltage (V AC setting) block inputs with the "Operating Time Measurement" function.

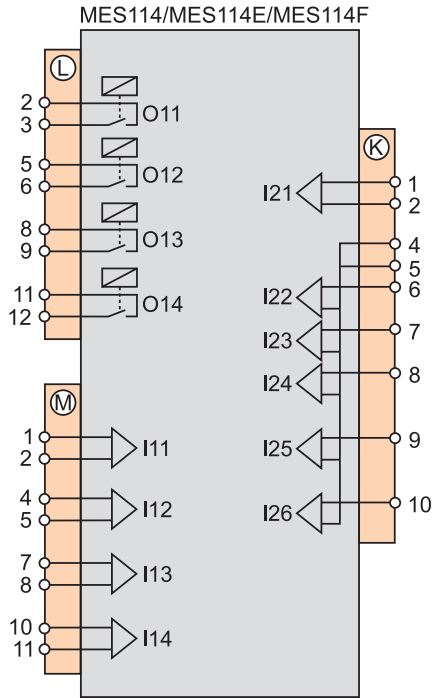
Installation



To install the MES114 input/output module, orient the MES114 module as pictured (to the left) and complete the following steps:

1. Insert the two pins on the bottom of the MES114 module into the corresponding slots (1) on the Sepam base unit.
2. Press the top of the MES114 module against the Sepam base unit
 - NOTE:** Confirm the MES114 module is aligned with the connector (2) on the Sepam base unit.
3. Tighten the mounting screw (3).

Connection



Wiring of Connectors A, B and C

Wiring with No Fittings

Wiring with Fittings

⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Only qualified electrical workers should install this equipment, after reading this entire instruction set.
- NEVER work alone.
- Before performing visual inspections, tests, or maintenance on this equipment, disconnect all sources of electric power. Assume that all circuits are live until they have been completely deenergized, tested, and tagged.
- Use a properly rated voltage sensing device to confirm that power is off.
- Screw tight all terminals, even those not in use.

Failure to follow these instructions will result in death or serious injury.

The inputs are potential-free and the DC power supply source is external.

Number of Wires	Maximum Cross-Section
1	0.00003–0.0039 in ² , AWG 24–12 (0.2–2.5 mm ²)
2	0.00003–0.0016 in ² , AWG 24–18 (0.2–1 mm ²)

NOTE: The stripped wiring length should be 0.315–0.39 in (8–10 mm).

Telemecanique wiring fittings are recommended

Telemecanique Fitting	Number of Wires	Maximum Cross-Section
DZ5CE015D	1	0.0023 in ² , AWG 16 (1.5 mm ²)
DZ5CE025D	1	0.0039 in ² , AWG 12 (2.5 mm ²)
AZ5DE010D	2	0.0016 in ² , AWG 18 (1 mm ²)

NOTE: The stripped wiring length should be 0.31 in (8 mm) and the cable length should be 0.32 in (8.2 mm).

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Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

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