

EY-FM 265: Field module for digital outputs 0-I-II, modu265

How energy efficiency is improved

SAUTER EY-modulo 2 – tried and tested technology to meet the highest requirements

Features

- Remote unit as part of the SAUTER EY3600 and EY-modulo 2, 4 and 5 system families
- Regulation, control, monitoring and optimisation of operational systems, e.g. in HVAC engineering
- 2 digital outputs/2-step
- Independent, local priority operation through external power supply
- Individual activation of field module
- Manual control for each digital output
- Feedback (digital output status) available
- Priority function, definable relay statuses for system errors
- Front insert for direct labelling
- LED signal indicators and manual operation



EY-FM265F001

Technical data

Power supply

Power supply	24 V~, ±20%, 50...60 Hz 24 V=, ±10%
Current consumption	≤ 300 mA
Power consumption	≤ 3 W

Ambient conditions

Operating temperature	0...45 °C
Storage and transport temperature	-25...70 °C
Admissible ambient humidity	10...85% rh, no condensation

Inputs/Outputs

Digital outputs	2 × 0-I-II relay, change-over contacts
Electrical life	> 5 × 10 ⁶ cycles
Load	250 V~/10 A resistive load
Connections	Screw terminals for power supply function activation priority control control of devices feedback signals

Construction

Dimensions W x H x D	105 × 90 × 60 mm
Weight	0.25 kg

Standards and directives

Type of protection	IP 00 (EN 60529)
Protection class	II (EN 60730-1)
Environment class	3K3 (IEC 60721)

CE conformity as per	EMC directive 2004/108/EC ¹⁾	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4
	Low-voltage directive 2006/95/EC	EN 60730-1

Overview of types

Type	Properties
EY-FM265F001	Field module for digital outputs 0-I-II, modu265

Accessories

Type	Description
0920000165	Front insert, printable, yellow, 1 A4 sheet with 6 inserts each, perforated

¹⁾ EN 61000-6-2: In order to meet the European Standard, the power cables for the inputs must not exceed 30 m in length



Additional information

Fitting instructions	MV P100006618
Declaration on materials and the environment	MD 92.925

Engineering notes

The modu265 field module is mounted directly on an EN 60715 top-hat rail in the cabinet or at a suitable location in the HVAC installation.



► The device may only be connected when the system is disconnected from the electrical supply.

The actuation, feedbacks and plant devices of the field module are connected to screw terminals. The following conditions must be observed:

- Conductor cross-section min. 0.8 mm², max. 2.5 mm² copper wire in accordance with standards and national installation requirements.
- Special standards such as IEC/EN 61508, IEC/EN 61511, IEC/EN 61131-1, IEC/EN 61131-2 and similar were not taken into account.
- Local standards regarding installation, application, access, access rights, accident prevention, safety, dismantling and disposal must be taken into account. Furthermore, installation standards EN 50178, 50310, 50110, 50274 and 61140 must be observed.



Note:

For further information on the installation, see the fitting instructions P100006618.

Description of operation

As a remote unit with 2 x 2 digital outputs, the field modules enables direct actuation of plant devices. The module requires an external power supply of 24 V AC or DC and can be activated by various devices (automation stations (AS), PLCs, etc.). The functions of the individual channels (digital outputs) and feedbacks (statuses) are provided by wiring connection terminals nos. 20...24 and nos. 26...32. All channels can be activated manually with slide switches.

Due to the external power supply, the field module can be used for system-independent, local priority operation.

Number of outputs	2x 0-I-II
Type of outputs	Relay (change-over contacts)
Load on outputs	Max. 250 V~ / 10 A (resistive load)
Actuation of outputs (F1...F4)	Internal power supply 20...40 V Terminals 21...24, GND 20

With actuation via open collector outputs, the following additional specifications must be adhered to:

Switching threshold inactive	> 9.5 V
Switching threshold active	< 4 v
Input current	< 1.5 mA

The slide switches on the front of the device can be used to actuate the channels individually through the positions AUTO–0–I–II.

Slide switch

Position	Description
Auto	The AUTO position enables external actuation of steps I, II and 0
0	Position 0 deactivates the channels directly
I	Positions I and II activate the relevant channel directly
II	

Intended use


This product is only suitable for the purpose intended by the manufacturer, as described in the “Description of operation” section.

All related product documents must also be adhered to. Changing or converting the product is not admissible.

Automatic mode

Activation of the relay outputs by connecting terminals nos. 21...24 (F1 and F2) and terminal no. 20 (ground). The actuation is performed via potential-free digital outputs such as open collectors or relays from an AS, PLC, etc.

Feedbacks

The activation of a manual actuation (switch in position 0, I or II) as well as the relay On status (unreal feedback) can be tapped individually for each channel at the various Feedback I, II and  terminals. The COM terminal is for the shared ground connection of the feedbacks. These are generally connected as digital inputs for an AS.

Relay outputs

The relay outputs (change-over contacts) can be supplied with a voltage of 250 V~ and a steady current of up to 10 A. Connecting different phases or voltages is only admissible at relay outputs F1 and F2.



Note:

► Both steps I and II may not be selected simultaneously for the step switching function!

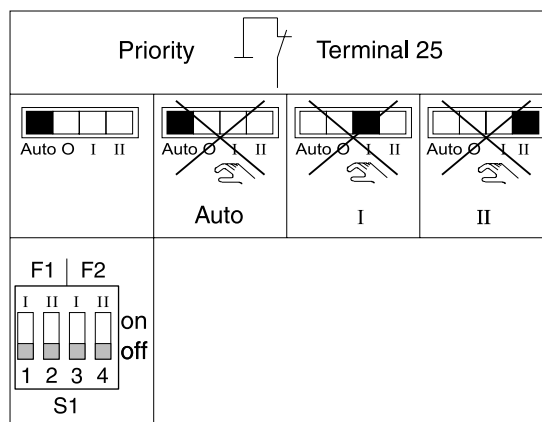
If the Priority connection (terminal no. 25) is connected directly with the ground, the channels are switched according to the setting of DIP switches F1 and F2 into the corresponding switching status 0, I or II. The DIP switches are located in the middle of the top of the device.



Note:

In priority mode, manual controlling of the outputs is not possible!

Operation diagram for priority mode



Labelling concept

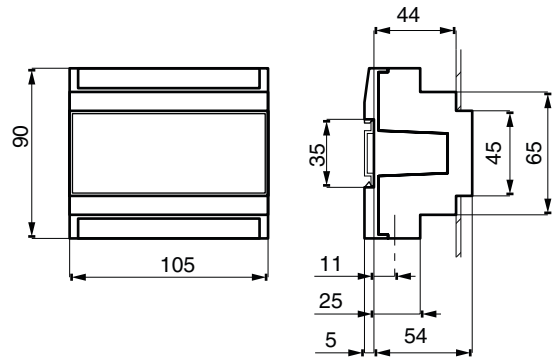
The printable front insert, which can be inserted behind the transparent cap, enables the output channels to be labelled individually. Labelling sheets in DIN A4 format are available for this. The labelling is usually carried out using texts generated from SAUTER CASE engineering software, and the labels are created using commercial printers.

Disposal

When disposing of the product, observe the currently applicable local laws.

More information on materials can be found in the Declaration on materials and the environment for this product.

Dimension drawing



Connection diagram

