

modu270: Полевой модуль, аналоговые выходы (0...10 V)
Как повышается энергетическая эффективность

SAUTER EY-modulo: проверенная технология для ответственных применений

Область применения

Регулирование, управление, мониторинг и оптимизация технических систем в области HVAC

Характеристики

- Полевой модуль часть систем SAUTER EY3600, EY-modulo 2, 4 и 5
- Независимое, локальное, приоритетное устройство управления через внешний источник питания
- Четыре аналоговых выхода
- Раздельное управление
- Ручное управление для каждого аналогового выхода
- Доступен обратный сигнал для ручного режима
- Приоритетная функция с определяемым статусом выхода в случае системных ошибок
- Внешние вставки для маркировки/надписи

Техническое описание

- Электропитание 24 V~/=
- Четыре аналоговых выхода 0...10 V

Продукция

Тип	Описание
EY-FM270F001	Полевой модуль, четыре аналоговых выхода 0...10 V, ручное управление

Техническая информация
Электрическое питание

Питание	24 V~ (50/60 Hz) ± 20%
	24 V= ± 10%
Потребляемый ток	до 190 mA
Потребляемая мощность	до 1.8 W

Функции

Аналоговые выходы	4× 0...10 V= max. 20 mA (источник) или 4× 2...10 V=, max. 5 mA (sink)
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Интерфейс

Соединение	Винтовые клеммы для:
	• Источника питания
	• Управления функциями
	• Управления приоритетом
	• Выходов напряжения
	• Обратного сигнала
	в ручном режиме

Допустимые условия среды

Рабочая температура	0...45 °C
Хранение и транспортировка	-25...70 °C
Влажность	10..0.85% rh
	Без конденсата

1) Для соответствия промышленному стандарту EN 61000-6-2, подключаемые кабели должны быть не более 30 м в длину.

Аксессуары

Тип	Описание
	Вставки, этикетки
0920000164	Внешние вставки, для печати, жёлтые, один лист A4 с шестью вставками, перфорированный
	Крышки
0368962001	Крышка для клемм



Engineering notes

The modu270 field module is fitted onto a top-hat rail EN 60715 in the cabinet or at a suitable location in the HVAC system.

Note

The power should be switched off before the equipment is connected.

The connections for field module control, feedback and equipment are made via screw terminals. The following conditions must be met:

- Conductor cross-section, min. 0.8 mm², max. 2.5 mm², copper conductor compliant with standards and national installation regulations
- No account has been taken of special standards such as IEC/EN 61508, IEC/EN 61511, IEC/EN 61131-1, IEC/EN 61131-2 or similar standards.
- Local standards regarding installation, application, access, access authorisations, accident prevention, safety, dismantling and disposal must be observed. Compliance is also required with installation standards EN 50178, 50310, 50110, 50274 and 61140.

For further information, consult the fitting instructions, P100006618.

Function description

The field module is a remotely operable unit with four analogue outputs to enable the direct control of equipment.

The module requires an external power supply of 24 V alternating or direct current and can be controlled via various devices (automation stations, PLC etc). The functions of each channel (signals 0...10 V) and feedback (manual operation status) are achieved by wiring the connection terminals 20...24 and 26...30 accordingly. All channels can be controlled via slide switch and potentiometer.

The external power supply makes it possible to use the field module as a system-independent, local priority control unit.

Number of outputs	4
Type of outputs	analogue signal 0...10 V=, max. 20 mA (source) or 2...10 V=, max. 5 mA (sink)

Note

The outputs are not protected against extraneous voltage.

The slide switches and potentiometers on the front allow the individual control of each channel.

Slide switch

Position	Description
Auto	Position Auto enables external signal control
	Position  results in manual 0...10 V signal output via potentiometer

Automatic mode

Activation of analogue outputs by connecting terminals 21...24 (F1...F4) and terminal 20 (GND). Activation is usually via an automation station, PLC etc.

Feedback

The activation of the manual function can be set individually for each channel via the corresponding feedback .

The COM terminal serves as a common ground connection for feedback signals. They are usually connected as digital inputs on automation stations.

LED indicators

A Power LED (green) on the front indicates the field module's power supply.

Priority operation

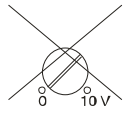
Priority operation enables the analogue outputs to be switched directly to a defined signal value in the event of a control malfunction (e.g. failure of automation station).

Connecting the Priority connection (terminal 25) directly to ground results in the output of signal values for each output via the trimming potentiometers F1...F4. The factory setting for trimming potentiometers is approx. 50% of the signal value. This equates to an output signal of approx. 5 V. In the plan view, the trim potentiometers are located at top centre.

Note

Manual control of the outputs is not possible in priority operation mode.

Priority table of functions

Priority active Terminal 25 to earth	
 Auto	 Auto
Trim pots  1...4	Pots 1...4  0 10 V

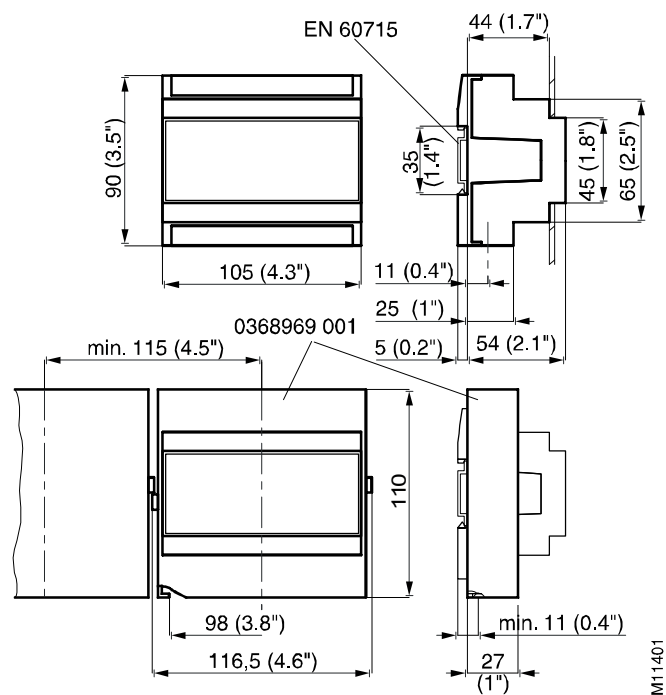
Labelling concept

The printable front insert can be placed behind the transparent cover on the front to provide a designation for each output channel. Labelling sheets in A4 format are available for this purpose. Labelling is usually in the form of texts generated using CASE Suite project management software which can be printed on normal commercial printers.

Accessories

Degree of protection IP 20 can be attained by using a terminal cover (accessory no. 0368962001) for increasing the safety of electrical connections.

Dimension drawing



Wiring diagram

