

DIN Rail Mount 17.5 mm MUS/MUSF 80 AC/DC Part number 84872141


- Control relays monitoring their own power supply
- **MUS** : Over/undervoltage control
- Selectable latching (memory) function
- **MUSF** : Over/undervoltage control
- Adjustable time delays
- Control in 50 Hz, 60 Hz or DC
- True RMS measurement
- LED status indication

Part numbers

Type	Functions	Controlled ranges
84872141	MUS/MUSF 80 AC/DC	Under/Oversupply control 20 → 80 V AC/DC

Specifications
Supply

Polarity with DC voltage	■
Galvanic isolation of power supply/measurement	No
Immunity from micro power cuts	10 ms

Inputs and measuring circuit

Frequency of measured signal	0 Hz, 50... 60 Hz
Max. measuring cycle time	250 ms/True RMS measurement
Display precision	±10 % of full scale
Repetition accuracy with constant parameters	± 0,5 %
Measuring error with voltage drift	< 1 % across the whole range
Measuring error with temperature drift	± 0,05 % / °C

Timing

Delay on threshold crossing Tt	0,1 → 10 sec (0, +10 %)
Repetition accuracy with constant parameters	± 0,5 %
Reset time	1,5 s
Delay on pick-up	500 ms in AC / 1 s in DC

Output

Type of output	1 single pole changeover relay
Type of contacts	No cadmium
Maximum breaking voltage	250 V AC/DC
Max. breaking current	5 A AC/DC
Min. breaking current	10 mA / 5 V DC
Electrical life (number of operations)	1 x 10 ⁵
Breaking capacity (resistive)	1250 VA AC
Maximum rate	360 operations/hour at full load
Operating categories acc. to IEC/EN 60947-5-1	AC 12, AC 13, AC 14, AC 15, DC 12, DC 13, DC 14
Mechanical life (operations)	30 x 10 ⁶

Insulation

Nominal insulation voltage IEC/EN 60664-1	250 V
Insulation coordination (IEC/EN 60664-1)	Oversupply category III : degree of pollution 3
Rated impulse withstand voltage (IEC/EN 60664-1)	4 KV (1,2 / 50 µs)
Dielectric strength (IEC/EN 60664-1)	2 KV AC 50 Hz 1 min
Insulation resistance (IEC/EN 60664-1)	> 500 MΩ / 500 V DC

General characteristics

Display power supply	Green LED
Display relay	Yellow LED
Casing	17.5 mm
Mounting	On 35 mm symmetrical DIN rail, IEC/EN 60715
Mounting position	All positions
Material : enclosure plastic type VO to UL94 standard	Incandescent wire test according to IEC 60695-2-11 & NF EN 60695-2-11
Protection (IEC/EN 60529)	Terminal block : IP 20 Casing : IP 30
Connecting capacity IEC/EN 60947-1	Rigid : 1 x 4 ² - 2 x 2.5 ² mm ² 1 x 11 AWG - 2 x 14 AWG Flexible with ferrules : 1 x 2.5 ² - 2 x 1.5 ² mm ²

	1 x 14 AWG - 2 x 16 AWG
Max. tightening torques IEC/EN 60947-1	0,6 → 1 Nm / 5,3 → 8,8 Lbf.in
Operating temperature IEC/EN 60068-2	-20 → +50 °C
Storage temperature IEC/EN 60068-2	-40 → 70 °C
Humidity IEC/EN 60068-2-30	2 x 24 hr cycle 95 % RH max. without condensation 55 °C
Vibrations according to IEC/EN60068-2-6	10 → 150 Hz, A = 0.035 mm
Shocks IEC/EN 60068-2-6	5 g

Standards

Product standard	IEC/EN 6025561
Electromagnetic compatibility (EMC)	IEC/EN 61000-6-1, IEC/EN 61000-6-2, IEC/EN 61000-6-3, IEC/EN 61000-6-4
Certifications	UL, CSA, GL
Marking	CE (LVD) 73/23/EEC - EMC 89/336/EEC
Conformity with environmental directives	RoHS, WEEE

Supply

Supply voltage Un	24 → 48 V AC/DC
Operating range	15 → 100 V AC/DC
AC supply voltage frequency	50 / 60 Hz ± 10 %
Power consumption at Un	3.9 VA in AC/1.6 W in DC

Inputs and measuring circuit

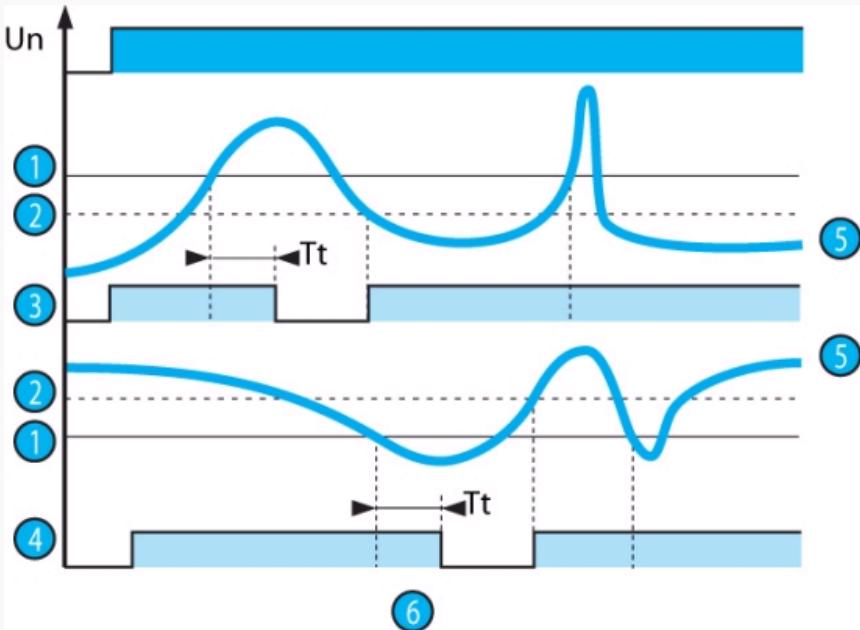
Threshold adjustment	20 → 80 V AC/DC
Hysteresis	5 → 20 % of threshold (MUS) 3 % (fixed) of threshold (MUF)

General characteristics

Weight	80 g
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Accessories

Description	Code
Removable sealable cover for 17.5 mm casing	84800000

Principles

The under or overvoltage threshold value is set by a graduated potentiometer by reading the U_n scale to be monitored directly.

The hysteresis is set by a graduated potentiometer from 5 to 20 % of the preset threshold. The hysteresis value cannot be higher than the extremes of the measurement range.

In overvoltage mode, if the controlled voltage exceeds the preset threshold for longer than the time set on the front face (0.1 to 10 s), the output relay opens and LED R is extinguished. During the time delay, this LED flashes.

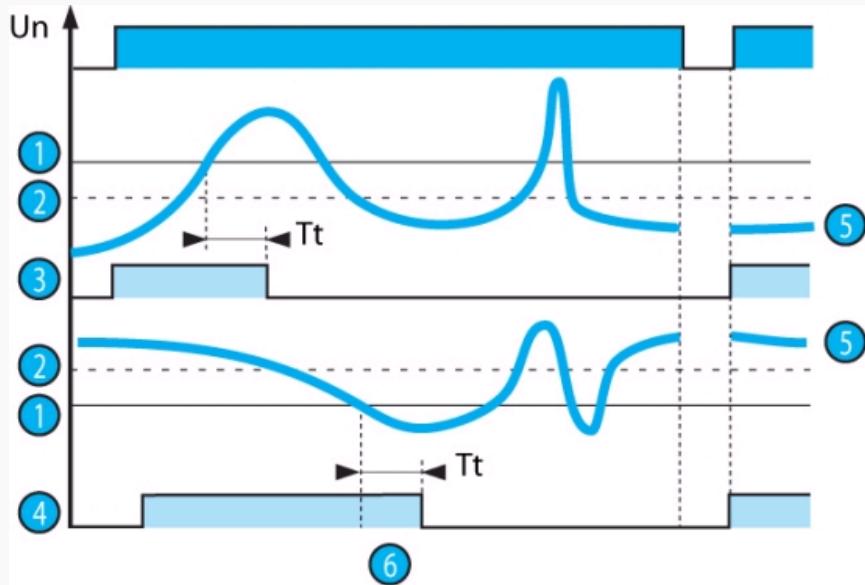
Once the voltage falls below the threshold value minus the hysteresis, the relay closes instantaneously.

In undervoltage mode, if the controlled voltage falls below the preset threshold for longer than the time set on the front face (0.1 to 10 s), the output relay opens and LED R is extinguished. During the time delay, this LED flashes.

Once the voltage rises above the threshold value plus the hysteresis, the relay closes instantaneously.

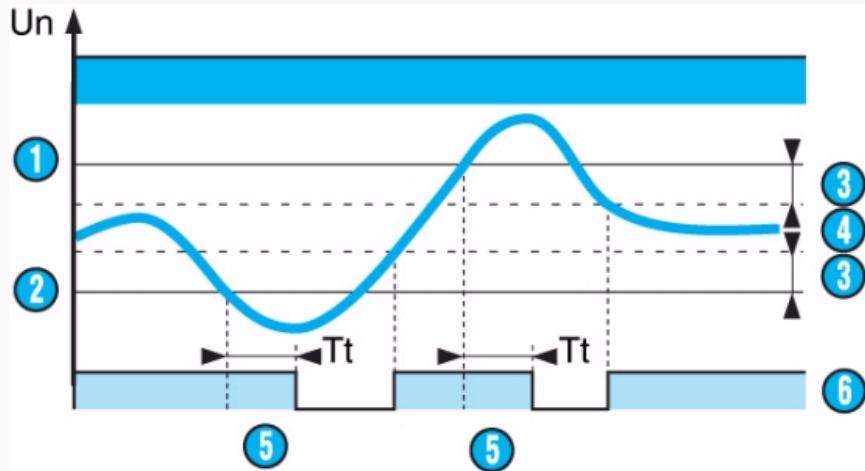
Nº	Legend
1	Threshold
2	Hysteresis
3	Overvoltage function relay

4	Undervoltage underload function relay
5	Controlled signal
6	Delay on threshold crossing (Tt)

Principles

If "with memory" mode has been selected, the relay opens and stays in this position when threshold crossing is detected. The power supply must be disconnected to reset the product.

Nº	Legend
1	Threshold
2	Hysteresis
3	Overvoltage function relay
4	Undervoltage function relay
5	Controlled signal
6	Delay on threshold crossing (Tt)

Principles

MUSF relays operate in window mode : they check that the controlled voltage stays between a minimum and maximum threshold.

The under and overvoltage threshold values are set by two graduated potentiometers by reading the U_n scale to be monitored directly.

The hysteresis is fixed, value : 3 % of the preset thresholds.

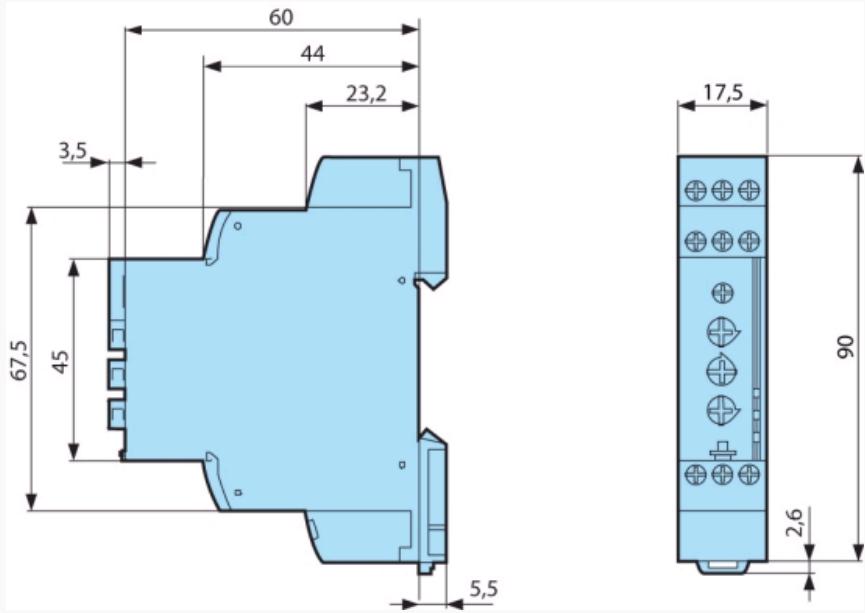
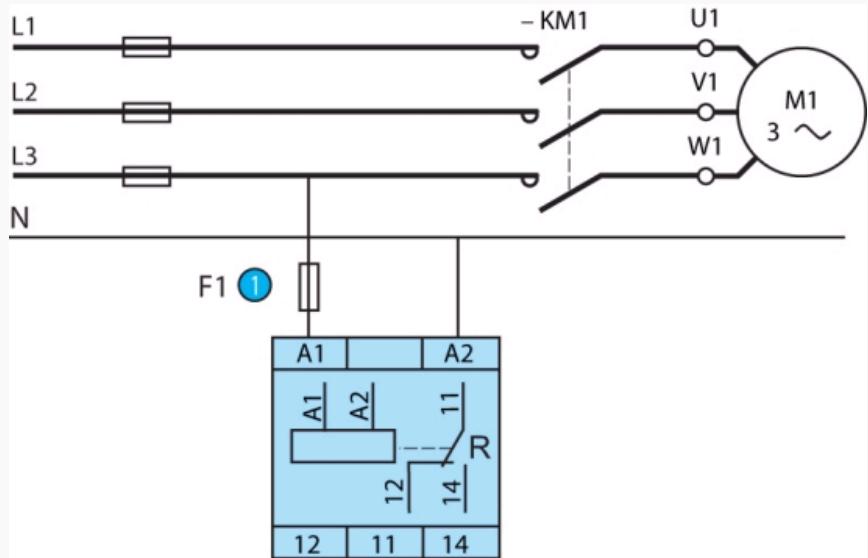
If the controlled voltage exceeds the preset upper threshold, or falls below the preset lower threshold for longer than the time set on the front face (0.1 to 10 s), the output relay opens and LED R is extinguished. During the time delay, this LED flashes.

Once the voltage returns to below the upper threshold value minus the hysteresis, or above the lower threshold value plus the hysteresis, the relay closes instantaneously.

When the unit is powered up with a measured fault, the relay stays open.

Nº	Legend
1	Upper threshold
2	Lower threshold
3	Overvoltage function relay
4	Undervoltage function relay
5	Controlled signal
6	Delay on threshold crossing (Tt)

1	High threshold
2	Low threshold
3	Hysteresis
4	Controlled signal
5	Delay on threshold crossing (Tt)
6	Relay

Dimensions (mm)**MUS - MUSF****Connections****MUS - MUSF**

Nº	Legend
1	1 A fast-blow fuse or cut-out

Product adaptations



- Customisable colours and labels
 - Fixed threshold in the generic measurement range
 - Fixed or adjustable time delay
 - Adjustable hysteresis
- Adaptations dedicated to MUS 12 DC, MUS 80 AC, MUS 260 AC :
- Possible to delete settings
 - Adjustable fixed hysteresis

ООО "ЛайфЭлектроникс"

"LifeElectronics" LLC

ИНН 7805602321 КПП 780501001 Р/С 40702810122510004610 ФАКБ "АБСОЛЮТ БАНК" (ЗАО) в г.Санкт-Петербурге К/С 30101810900000000703 БИК 044030703

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибуторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибуторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помочь разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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