



DATA SHEET

LM 1

for display, indication or switch-off of electrical loads or consumers

Article number 09700110



[Internetlink](#)

Function

Load monitors are electronic switches that switch on/off the electrical consumers (slaves) depending on another load (master). This allows current consumption peaks to be avoided. The load monitors of series LM detect the switching status of the master by directly measuring the current or indirectly through a transformer. The slaves are switched on/off in each case by a potential-free changeover contact. They are switched on when the fixed switch-on threshold is exceeded and switched off with the measured value drops below the holding current value. A hysteresis prevents excessive switching. With the LM 1 and LM 2 devices, the master is monitored by the direct current measurement up to 16 A; the only difference between the two devices is their monitoring ranges in which the threshold value can be freely adjusted.

Features

tiered monitoring ranges, Operating voltage 230 V or from transformer, minimum internal consumption, Switching of slaves via potential-free changeover contact, Module width just 1 unit (17.5 mm), protection class IP20

Mounting

quick fastening to mounting rail, any installation position

Applications

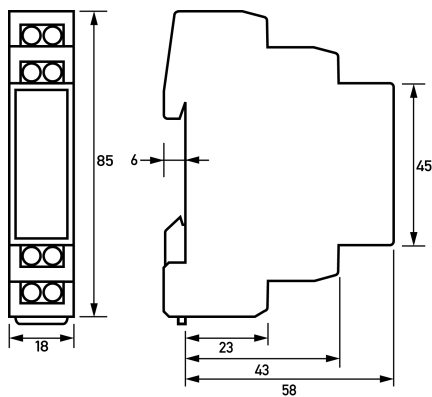
The load monitors can be used flexibly, e.g. for displaying the usage of individual buildings in holiday resort parks, for load management (internal consumption in photovoltaic systems), as presence indicators in hotel rooms, for consumption reports from individual circuits, for the maximum switch-off (in connection with load relays) or for general master-slave operation. Typical application examples are carpentry workshops, where a chip extraction system automatically switches on as soon as one or more circular saws are running (LM 3) or the optimised use of solar energy (switching of consumers in photovoltaic systems only as needed with "internal consumption" with the LM 2).

Technical Data

Technical Data	LM 1
Series	LM 1
Usage transducer	internal
max. Surveillance current	16 A
Number of (n.o, n.c., change-over)	0 0 1
Switch-on threshold range shading current	0.05 A ... 0.3 A
Operating voltage (AC)	230 V (195.5 V ... 241.5 V)
Operating frequency	50 Hz
Internal consumption	max. 1 W
Type	LED
Rated voltage (AC)	230 V (196 V ... 241 V)
	Control output
Specification	Relay
Rated voltage (AC)	250 V
Rated current (AC)	2 A
	Screw-type terminal bottom, top and bottom (Load circuit, Control input)
Clamping area	max. 4 mm ²

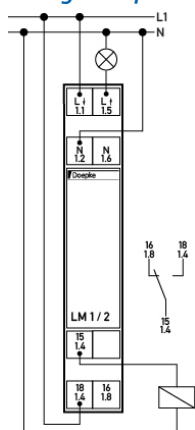
Technical Data	LM 1
General data description	General data
Duty cycle	continuous operation
Operating position	any
Ambient temperature	-10 °C ... 45 °C
Housing type	Distributor housing
Mounting type	Mounting rail
Housing material	Polycarbonate (PC)
Protection class	IP40
Width	18 mm
Height	85 mm
Depth	65 mm
Installation depth	58 mm
Width (modules)	1
Design requirements/Standards	EN 60715

Dimensions



Dimensional drawing Group view

Wiring example



Wiring diagram