



MSR010

## Multi-function relay

## MSR010

with additional power supply of 24V DC

to reinforce fine contacts, microswitches and other contact devices with low breaking capacity.

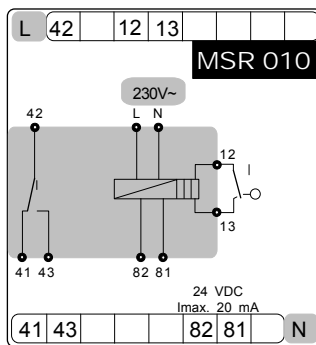
### Description of the relay

The multi-function relay may be considered as a contact protection relay or contact intensifier. If a potential-free (voltage-free) contact of a control device is connected to the multi-function relay "12" and "13", it triggers an electronic device which in turn switches a switch relay of higher output. The contact control voltage is a pulse voltage of 24 V and is decoupled from the mains. The pulses are needle pulses in a ratio 1:100.

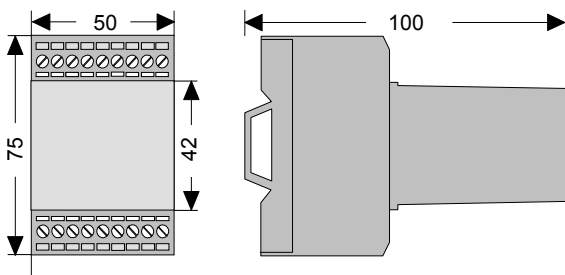
The multi-function relay can be used wherever instrument precision contacts need to be reinforced, or where decoupling of the contacts is necessary, or where equipment is operated using low voltage, for example HGseries hygrostats if they are used at over 80%rel. humidity. This prevents destructive voltage arcing in the event of the hygrostat microswitch becoming wet.

At the same time, the MSR010 multi-function relay has a direct voltage output of 24V DC . This is an ideal power supply for sensors or other controllers.

### Connection diagram



### Dimensions diagram



### Technical data

Power supply .....	230V AC
allowable deviation .....	-10%...+6%
frequency .....	50...60Hz
power consumption .....	22mA

### as contact protecting relay

pulse control voltage .....	24 V DC ±10%
	decoupled from the mains
pulse pause ratio .....	0.5 ms / 50 ms ±20%
allowable contact transition resistance .....	< 4.7 k ohms, 47 nF
pulse duration .....	250 µs (typical)
release delay .....	10...60 ms
relay output .....	potential-free changeover contact
allowable loading .....	8A 250V AC, 1860 VA

### as power supply

voltage output .....	24 V DC ±10%
max current at pure power supply .....	50mA
at additional contact protection operation .....	20mA
pin configuration .....	DIN 45140
insulation class .....	C/250V AC conforming to VDE0110
ambient temperature .....	0°C...+70°C
allowable rel. humidity .....	5%rh... 90%rh
electromagnetic compatibility EMC	
resistance to interference .....	ref. EN 50 082-2
interference emission .....	ref. EN 50 081-2
housing .....	polyamide 6.6, colour green
mounting .....	standard bar 35x7,5mm in accordance with DIN 50022
	.....individual mounting with adapter panel (order no. 20.015)
type of protection .....	IP40 (terminals IP20)
weight .....	0.45kg
	„subject to technical modifications“