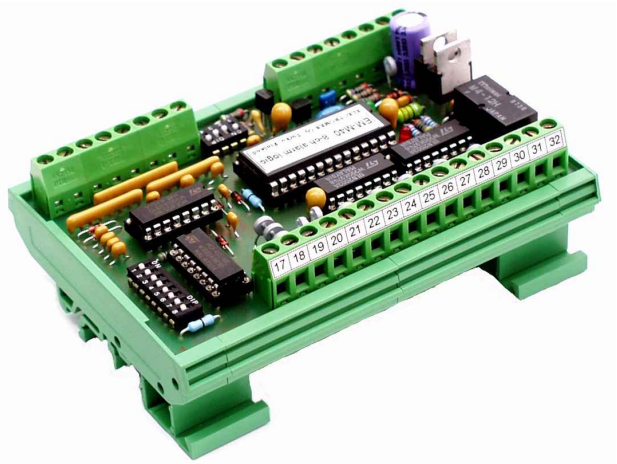
EM-M40 8-CHANNEL ALARM INDICATION UNIT



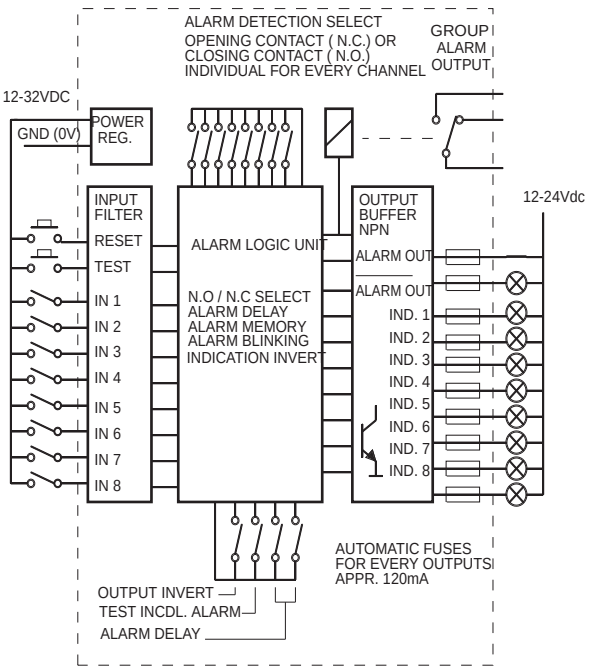
FEATURES:

- **8-channels**
- **Selectable input mode n.o- or n.c-alarm contacts**
- **Four alternative alarm delays**
- **Relay output for alarm**
- **Blinker and memory for alarm**
- **Realtime indication**
- **Invertable outputs**
- **Test function**
- **Each output protected against short circuit**
- **Protected against inverse polarity**

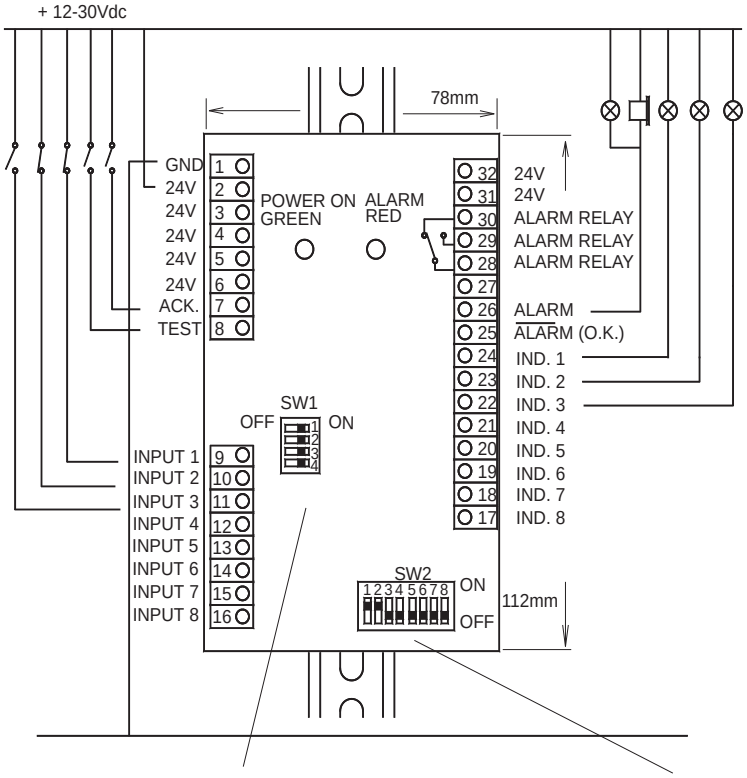
EM-M40 is an 8-channel alarm logic suitable for alarm control in various automation processes. With EM-M40 alarm panels and systems can be build easily. Each of the 8-channels can be set to activate either with opening or closing contact. Similarly inputs can be controlled with voltage signal also. The indication output display the state of the input in realtime so the unit is s.c. transparent. Indication outputs can be inverted as well, then the output is reversed compared to input. Indication outputs can control signal lamps, leds or relays. The alarm logic operates in following manner. When the fault signal is detected, the indication light of the particular channel starts to blink and group alarm relay and alarm output gives an alarm. If the fault causing the alarm is removed the alarm stays. The alarm can be removed only with the reset button. When the alarm is acknowledged the group alarm is removed, indication light stays lit until the input situation has been normalized. So alarm blinks and old one stays lit. The alarm input can be delayed for 0.5 to 4 seconds. The alarm delay is same for all channels.
With test input the operation of the unit can be verified, relay output can be excluded from the test. There are 3 alarm outputs: NPN-open-collector, inverted NPN-open-collector and relay outputs. The group-alarm relay is de-energized when alarm occurs so an operating voltage failure causes an alarm as well. All NPN transistor outputs are protected against short circuits and overloading. Protection recovers automatically when the fault is removed. Operating voltage input is protected against voltage surges and inversed voltage.

TECHNICAL DATA:

Supply	12...32 Vdc
Current consumption	100 mA
Input levels	“0” < 1 V “1” > 4 V
Input voltages	max. ±35 V
Input impedances	4.7 kohm (in 1-8)
Relay output	1 A 125 Vac / 30 Vdc
Transistor output	NPN-open collector
Load capacity of output	100 mA
Overcurrent protection	typ. 120 mA
Alarm delays	0.5 s, 1 s, 2 s, or 4 s
Oper. ambient temp.	0...50 °C
Dimensions	78*112*45 mm
EMC-tested and CE-marked	



CONNECTION EXAMPLE OF ALARM LOGIC UNIT EM-M40



OPERATING MODE SELECTOR SW1

INVERTING OF THE OUTPUT SW1/1
- Direct operation: Fault activates output, switch “ON”
- Inverting operation: Normal condition activates output, switch “OFF”

OPERATING MODE OF THE TEST SW1/2
- Test activates indications and alarm, switch “OFF”
- Test activates only indications, switch “ON”

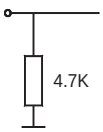
ALARM DELAY SW1/3&4
0.5 s switch 3 “ON” & switch 4 “ON”
1.0 s switch 3 “ON” & switch 4 “OFF”
2.0 s switch 3 “OFF” & switch 4 “ON”
4.0 s switch 3 “OFF” & switch 4 “OFF”

SELECTION OF THE ALARM OPERATION SW2

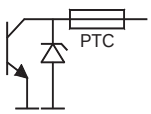
Opening contact causes an alarm (Uin < 1.5V), switch “ON”
Closing contact causes an alarm (Uin > 4 V), switch “OFF”

NOTICE !
IF INPUT IS NOT USED, SET THE SWITCH “OFF”
TEST AND ACKNOWLEDGEMENT ARE ACTIVATED WITH CLOSING CONTACT.

ALL INPUTS:
Input impedance 4.7 k



ALL OUTPUS
NPN-open collector
Load capacity 100 mA
Output protected with self-recovering PTC-fuse (appr. 120 mA)



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