

- According to DIN 19235
- Common alarm annunciator
- Devices available in 2 enclosure versions:
 - I-model: depth 61 mm, with terminals at the bottom for installations systems and industrial distribution systems according to DIN 43 880
 - S-model: depth 100 mm, with terminals at the top for cabinets with mounting plate and cable duct
- Expandable from 4 up to 160 inputs
- Open circuit inputs / closed circuit inputs selectable via bridges X1-X2
- Delayed inputs up to 10 s
- Acknowledgement push button QH for external buzzer built in
- Accessories: Buzzer IK 8832, SK 8832
- Width 35 mm

Fault annunciator IL 5990, SL 5990:

- 4 inputs with LED on control unit
- 1 output for common signal and 1 output for audible alarm

Extension unit IL 5991, SL 5991:

- 4 inputs with LED on control unit

Approvals and Marking



Application

For monitoring of industrial plants and buildings

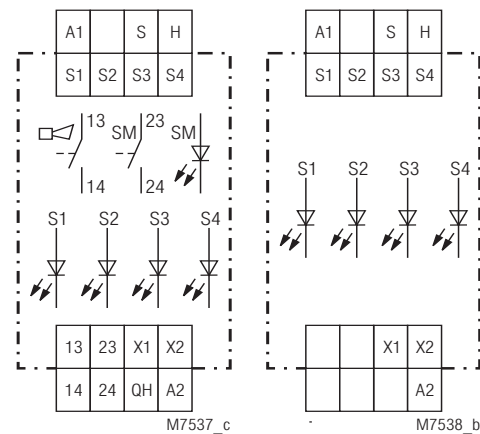
Notes

The terminals A1, inputs S1 - S4 and the acknowledgement input Q_H have to be connected at the same phase. The NO contacts 13 - 14 , 23 - 24 have to be connected to the same phase. The bus-circuits H and S have a low voltage and are not allowed to be connected to any external voltage. If inductive or capacitive superimposed voltages are expected from power cables, it is recommended, to use screened cables for these lines. The screen is to be connected to ground.

Bridge X1 - X2 = open circuit operation

A different setting of the fault annunciator IL 5990 and the extension unit IL 5991 is possible.

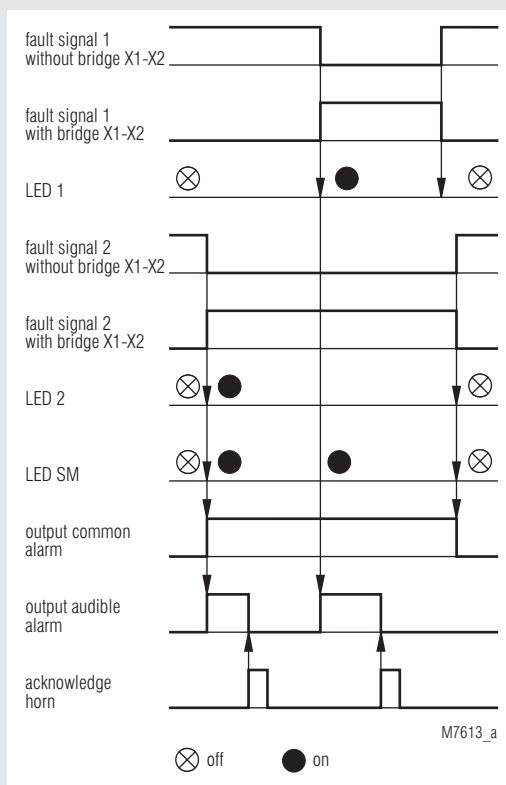
Circuit Diagrams



IL 5990, SL 5990

IL 5991, SL 5991

Function Diagram



Technical Data

Input

Nominal voltage A1-A2 and

inputs S1-S4:	AC 230 V, AC/DC 24 V
Voltage range:	0,8 ... 1,1 U_N
Nominal consumption:	8 VA
Nominal frequency:	50 / 60 Hz
Min. time for input signal:	≥ 100 ms
Min. time for acknowledgement:	≥ 200 ms
Operate delay:	1 s, 3 s, 10 s

Output

Contacts:	1 NO contact for common signal and horn
Thermal current I_{th}:	5 A

Switching capacity

to AC 15:	1 A / 230 V	IEC/EN 60 947-5-1
Electrical life		IEC/EN 60 947-5-1
to AC 15 at 1 A, AC 230 V:	≥ 1,5 x 10 ⁵ switching cycles	
Short circuit strength		
max. fuse rating:	4 A gL	IEC/EN 60 947-5-1
Mechanical life:	≥ 30 x 10 ⁶ switching cycles	

General Data

Operating mode:	Continuous operation
Temperature range:	- 20 ... + 60°C

Clearance and creepage distances

rated impuls voltage / pollution degree:	4 kV / 2	IEC 60 664-1
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EMC

Electrostatic discharge:	8 kV (air)	IEC/EN 61 000-4-2
HF-irradiation:	10 V / m	IEC/EN 61 000-4-3
Fast transients:	2 kV	IEC/EN 61 000-4-4
Surge voltages between wires for power supply:	1 kV	IEC/EN 61 000-4-5
between wire and ground:	2 kV	IEC/EN 61 000-4-5
Interference suppression:	Limit value class B	EN 55 011

Degree of protection

Housing:	IP 40	IEC/EN 60 529
Terminals:	IP 20	IEC/EN 60 529

Housing:

	Thermoplast with V0 behaviour according to UL subject 94
Vibration resistance:	0,35 mm Amplitude, frequency 10 ... 55 Hz IEC/EN 60 068-2-6
Climate resistance:	20 / 060 / 04 IEC/EN 60 068-1

Terminal designation:

Terminal designation:	EN 50 005
	2 x 2,5 mm ² solid or 2 x 1,5 mm ² stranded ferruled
	DIN 46 228-1/-2/-3/-4

Wire connection:

	Flat terminals with self-lifting clamping piece IEC/EN 60 999-1
	DIN rail IEC/EN 60 715

Mounting:

Weight	
IL 5990:	approx. 140 g
IL 5991:	approx. 120 g
SL 5990:	approx. 170 g
SL 5991:	approx. 150 g

Dimensions

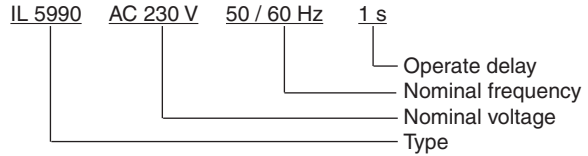
Width x height x depth

IL 5990, IL 5991:	35 x 90 x 61 mm
SL 5990, SL 5991:	35 x 90 x 100 mm

Standard Types

IL 5990 AC 230 V 50 / 60 Hz 1 s	
Article number:	0049188 stock item
SL 5990 AC 230 V 50 / 60 Hz 1 s	
Article number:	0051721
• Nominal voltage U_N :	AC 230 V
• Operate delay:	1 s
• Width:	35 mm
IL 5991 AC 230 V 50 / 60 Hz 1 s	
Article number:	0049189 stock item
SL 5991 AC 230 V 50 / 60 Hz 1 s	
Article number:	0050615
• Nominal voltage U_N :	AC 230 V
• Operate delay:	1 s
• Width:	35 mm

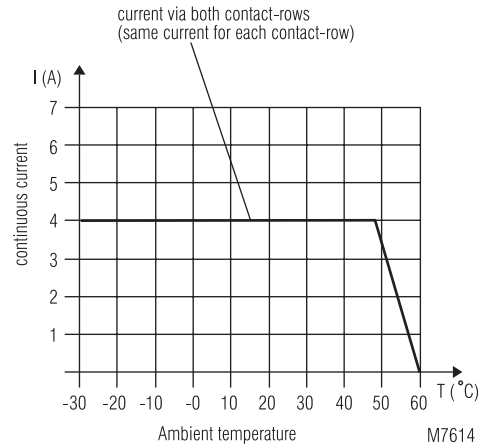
Ordering example



Accessories

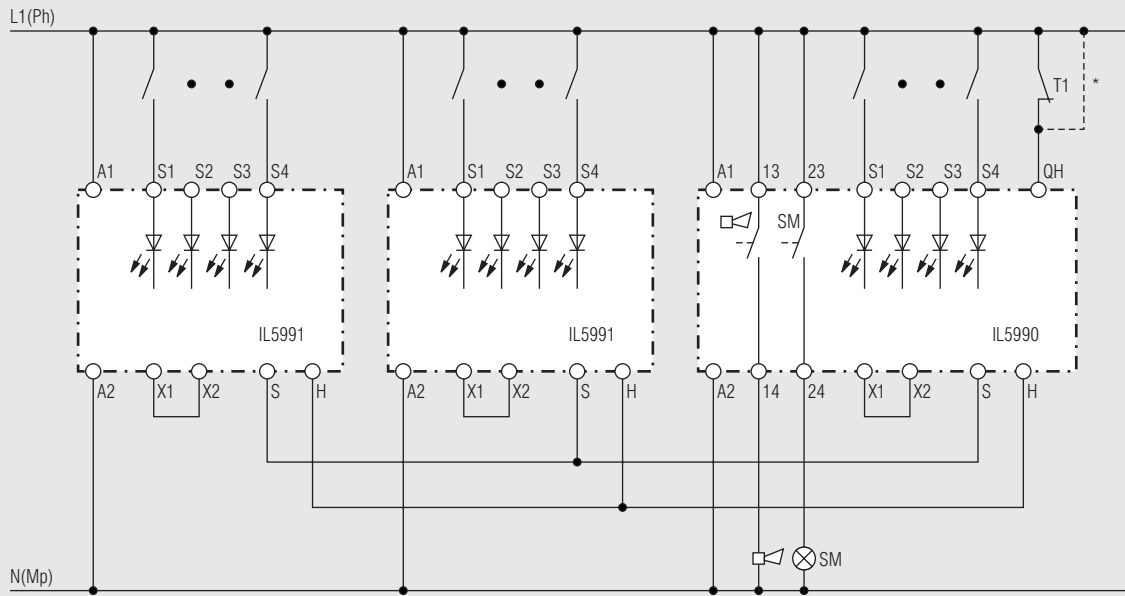
Buzzer	IK 8832, SK 8832
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Characteristics



Continuous current-limit curve

Connection Example



with bridge X1/X2 open circuit operation
without bridge X1/X2 closed circuit operation

M7615_b

T1 external acknowledgement push button for audible alarm
* without external acknowledgement push button has to be replaced by a bridge

