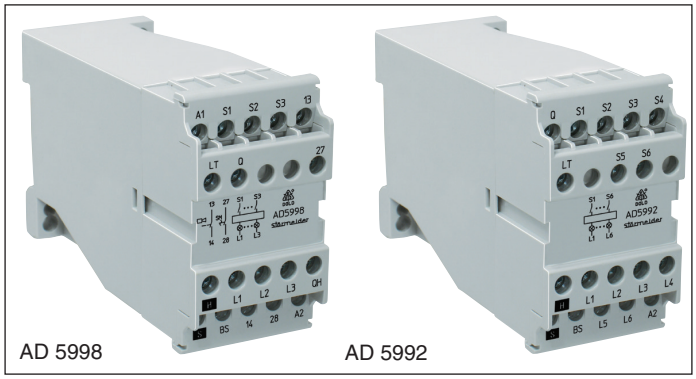
INFOMASTER
Fault Annunciator System
AD 5998, AD 5992

0221533

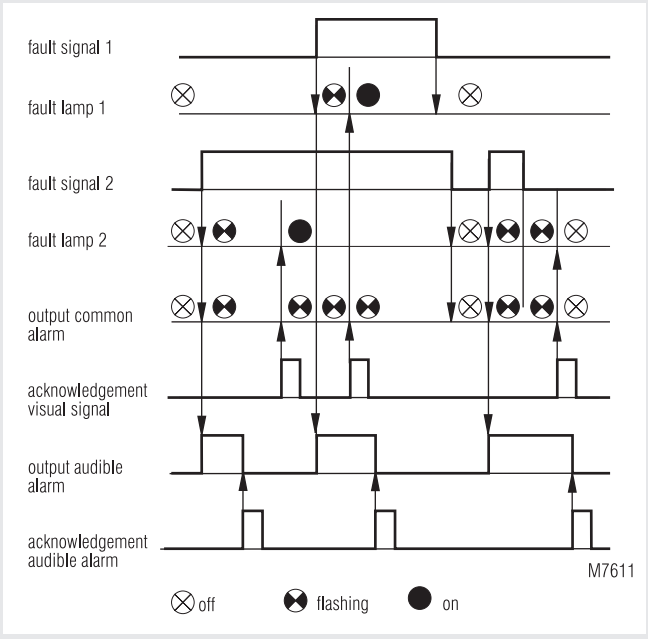


- New fault annunciation according to DIN 19235
- Expandable from 3 up to 303 inputs
- Width 45 mm

Fault annunciator AD 5998:
- 3 inputs
- Pushbutton connection possible for light signal acknowledgement, horn acknowledgement and lamp test
- 1 relay for common alarm and 1 for horn

Extension unit AD 5992:
- 6 inputs

Function Diagram



Approvals and Markings

CE

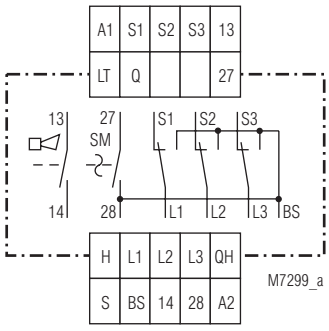
Applications

Monitoring of industrial plants and buildings

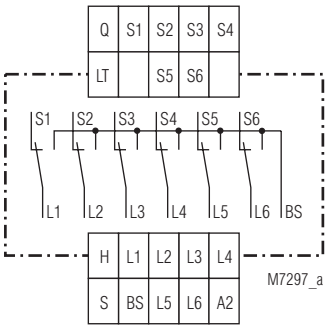
Connection Terminals

Terminal designation	Signal description
A1	+ / L
A2	- / N
S1, S2, S3, S4, S5, S6	Measuring inputs for fault signals
L1, L2, L3, L4, L5, L6	Fault signals outputs
QH	Control input for horn acknowledgement
Q	Control input for light signal acknowledgement
LT	Control input for lamp test
13, 14	Relay output for horn
27, 28	Relay output for common alarm
H	Bus wire horn
S	Bus wire for common alarm
BS	Flash impulse

Circuit Diagrams



AD 5998



AD 5992

Notes

The connections A1, inputs S1-S3 and S1-S6, lampt test input LT and acknowledgement input Q have to be connected to the same phase.

Even if no common signal light will be connected, the nominal voltage is to be connected to terminal 27.

The bus-lines 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, it is recommened to use screened cables for these lines.

The flash impulse via flash line BS will be generated by an internal contact. The maximum load of this contact must be observed (technical data).

It is not allowed to connect lamps with transformers on the outputs. This would cause unintentional fault signals at the lamp test.

In case of units with AC-voltage, the signal lights during the lamp test are lighting dim, as the test will be effected only with a half-wave. The half-wave voltage is also applied at terminals S1-S3 and S1-S6 during the lamp test.

If other lamps, except for the fault signal lamps, should be tested via the lamp test pushbutton T1, it is necessary to use a lamp tester, whose diode configuration is identically to the diode configuration of the fault annunciator. In case of AC-voltage operation this ist the lamp tester AI 990/04, in case of DC-voltage operation the lamp tester AI 990 or AI 990.10.

Technical Data

Input

Nominal voltage U_N: AC 24, 230, 240 V,
DC 24 V with polarity protection
AC 42, 110, 127 V on demand

Special voltages: with additional resistors
(see connection example)

	AD 5998		AD 5992
	RV	R1	R2
DC 48 V:	ZWS 8 sl 390 Ω	ZWS 8 sl 2,7 kΩ	ZWS 8 sl 430 Ω
DC 60 V:	ZWS 8 sl 640 Ω	ZWS 20 sl 4,7 kΩ	ZWS 8 sl 640 Ω
DC 110 V:	ZWS 20 sl 1,5 kΩ	ZWS 20 sl 10 kΩ	ZWS 20 sl 1,5 kΩ
DC 125 V:	ZWS 20 sl 1,8 kΩ	ZWS 20 sl 12 kΩ	ZWS 20 sl 1,8 kΩ
DC 230 V:	ZWS 20 sl 3,3 kΩ	24 kΩ (2 x ZWS 20 sl 12 kΩ)	ZWS 20 sl 3,3 kΩ

Voltage range: 0.8 ... 1.1 U_N
Nominal consumption: AC 230 V 6 VA DC 24 V 1.5 W
Nominal frequency: 50 / 60 Hz
Fault impulse time: ≥ 100 ms
Acknowledgement impulse time: > 200 ms

Output

Loading:
AD 5992 / AD 5998
signal light each: AC 230 V 1 A max.
(terminals L1, L2, L3, L4, L5, L6 bzw. L1, L2, L3)

AD 5998
Audible-alarm output
(terminal 14): AC 230 V 3 A max.
Common alarm output
(terminal 28) and lamp signal
via flash line BS totally: AC 230 V 3 A max.
DC 24 V 2 A max.
for higher switching capacity
a contactor is to be inserted
Lamp test (pushbutton 1): Sum of the currents of all lamp signals L

Technical Data

General Data

Operation mode: Continuous operation
Temperature range
Operation: - 20 ... + 60°C
Storage: - 20 ... + 60°C
Altitude: < 2,000 m
Clearance and creepage distances
rated impulse voltage /
pollution degree: 4 kV / 2 IEC 60 664-1
EMC
Electrostatic discharge: 8 kV (air) IEC/EN 61 000-4-2
HF-irradiation
80 MHz ... 1 GHz: 10 V / m IEC/EN 61 000-4-3
1 GHz ... 2,7 GHz: 3 V / m IEC/EN 61 000-4-3
Fast transients: 2 kV IEC/EN 61 000-4-4
Surge voltages: 1 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: Amplitude 0.35 mm, frequency 10...55Hz IEC/EN 60 068-2-6
Climate resistance: 20 / 060 / 04 IEC/EN 60 068-1
Terminal designation: EN 50 005
Wire connection: 2 x 2.5 mm² solid or
2 x 1.5 mm² stranded wire with sleeve
DIN 46 228/-1/-2/-3/-4
Wire fixing: Flat terminals with self lifting clamping piede IEC/EN 60 999-1
Fixing torque: 0.8 Nm
Mounting: DIN rail IEC/EN 60 715

Weight	AC 230 V	DC 24 V
AD 5998:	380 g	250 g
AD 5992:	360 g	220 g

Dimensions

Width x height x depth: 45 x 77 x 127 mm

Standard Types

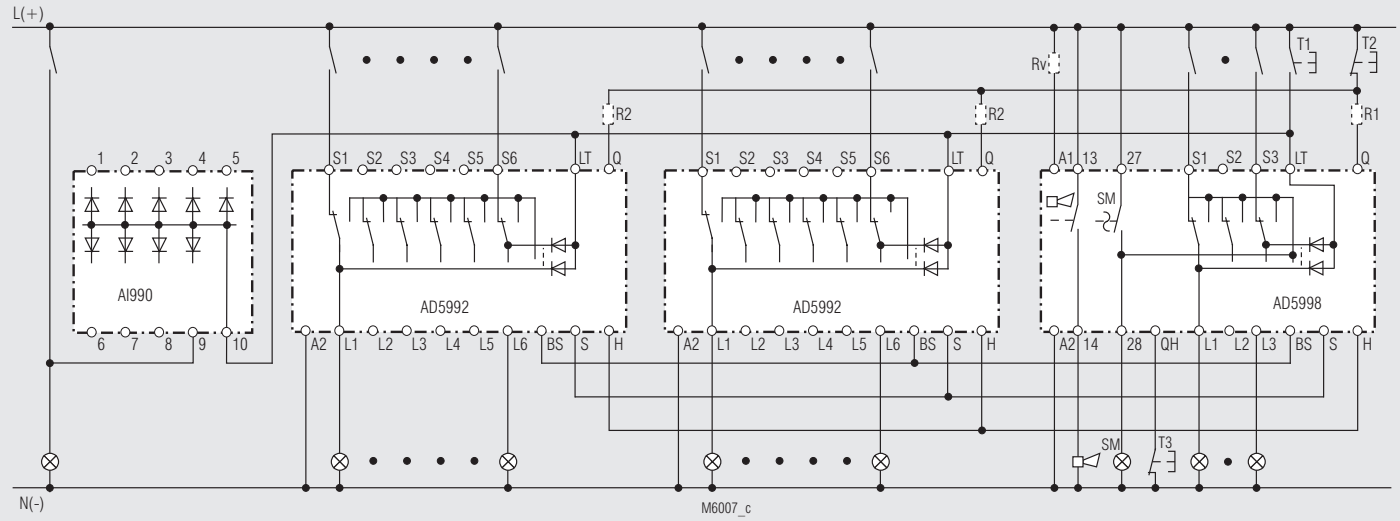
AD 5998 AC 230 V 50/60 Hz
Article number: 0032367
- Nominal voltage U_N: AC 230 V
- Width: 45 mm

AD 5992 AC 230 V 50/60 Hz
Article number: 0032361
- Nominal voltage U_N: AC 230 V
- Width: 45 mm

Ordering Example

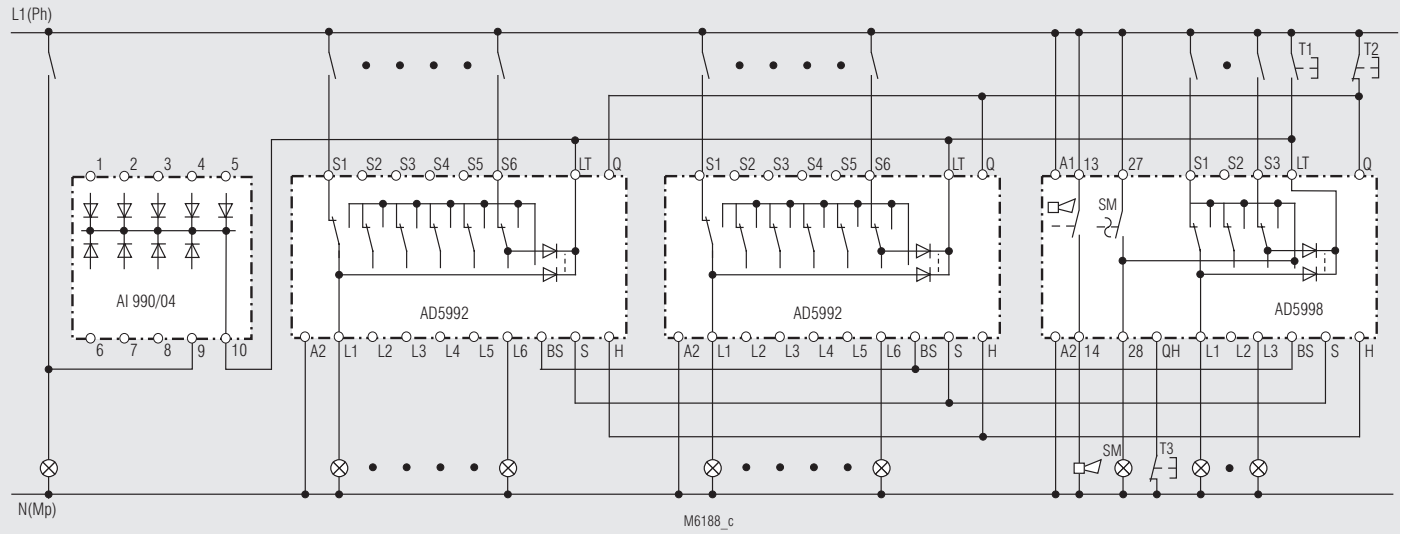
AD 5998 AC 230 V 50/60 Hz
- 50/60 Hz — Nominal frequency
- AC 230 V — Nominal voltage
- AD 5998 — Type

Connection Examples



T1 external pushbutton for lamp test
T2 external acknowledgement pushbutton for lamp signal
T3 external acknowledgement pushbutton for audible alarm
R_v, R1, R2 > DC 30 V

Connection diagram AD 5998 - AD 5992 for operation at DC-voltage with additional almp tester AI 990 or AI 990.10
Lamp tester AI 990 is only required if additional lamps in the system need to be tested.



T1 external pushbutton for lamp test
T2 external acknowledgement pushbutton for lamp signal
T3 external acknowledgement pushbutton for audible alarm

Connection diagram AD 5998 - AD 5992 for operation at AC-voltage with additional lamp texter AI 990.04 or AI 990.12
Lamp tester AI 990 is only required if additional lamps in the system need to be tested.