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Module and Application Description

Publication No.
D KWL 6325 94 E, Edition 02/95
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Relay unit

89AR30/R0100

Application

The relay unit is primarily designed to activate the triggering control elements of protection systems.

It is mounted in a standard withdrawable compartment acc. to DIN, using 3 units and including a female connector, type F.

Features

The module contains six relays, three of which can be wired according to user−specific needs. The contacts of the other relays are wired in a 2−out−of−3 pattern.

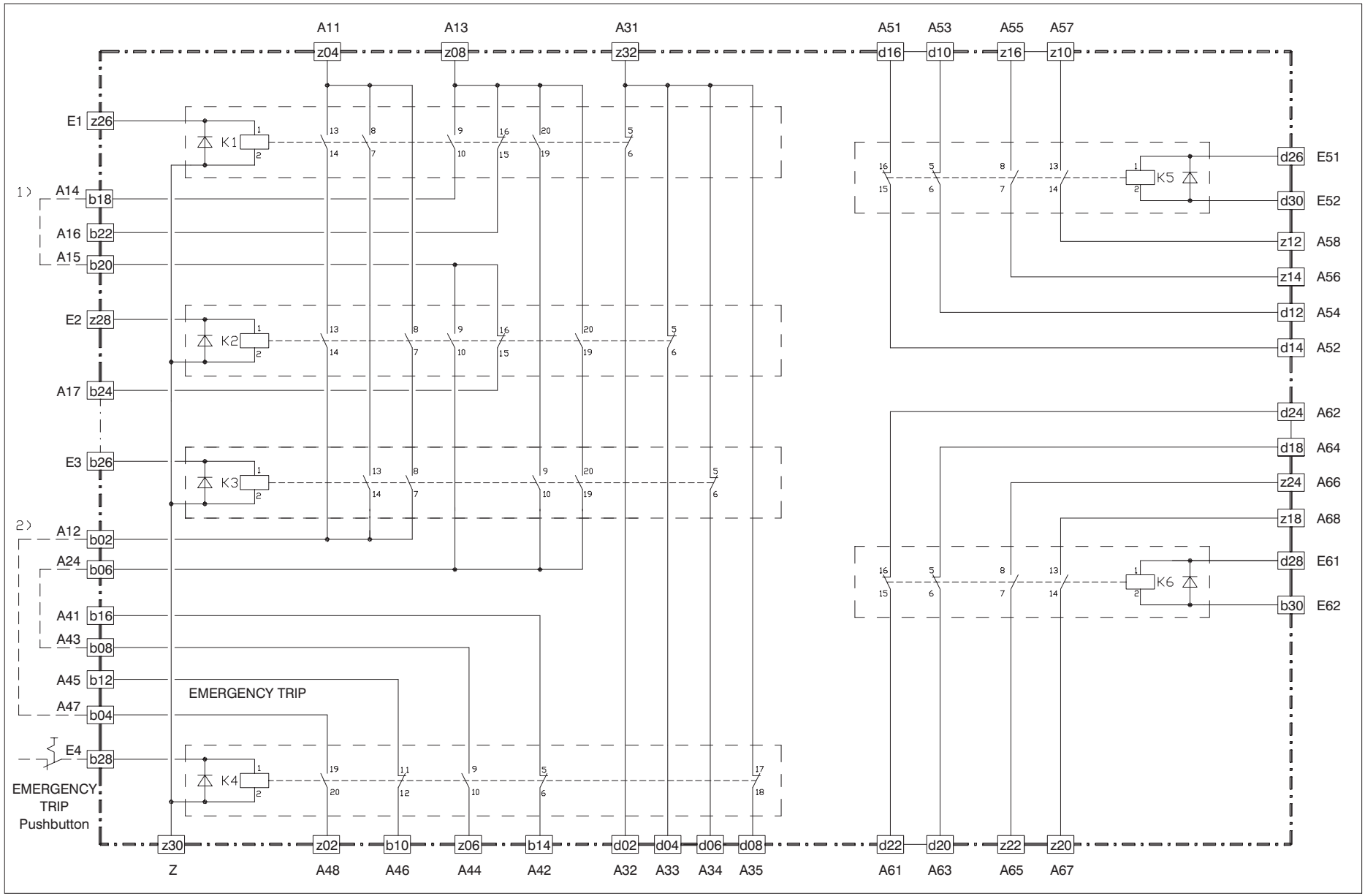
Description

The module contains prototype−tested relays *) with positively driven contacts. The contacts of relays K1, K2, K3 are grouped in two circuits and are wired in 2−out−of−3 order according to the open−circuit principle (external jumpers B18 − B20).

Auxiliary contacts can be used to interrogate the individual relay positions.

Relays K4, K5, and K6 are freely available. K4 may be used for instance for the emergency trip pushbutton of a certain protection circuit either based on the closed−circuit or the open-circuit principle. In that case, the required jumpers need to be positioned on the edge connector.

*) Acc. to TÜV Rheinland (German Technical Inspectorate of Rheinland), Report No. 945/EL 178/88 of Jan. 7, 1988.



1) external jumpers for 2 x 2−out−of−3

2) external jumpers for EMERGENCY TRIP with K4 (= closed−circuit)

Mechanical design

Board size: 3 units, 2 divisions, 160 mm deep

Connector: to DIN 41 612

1 x 48−pole edge connector, type F
(Connector X11)

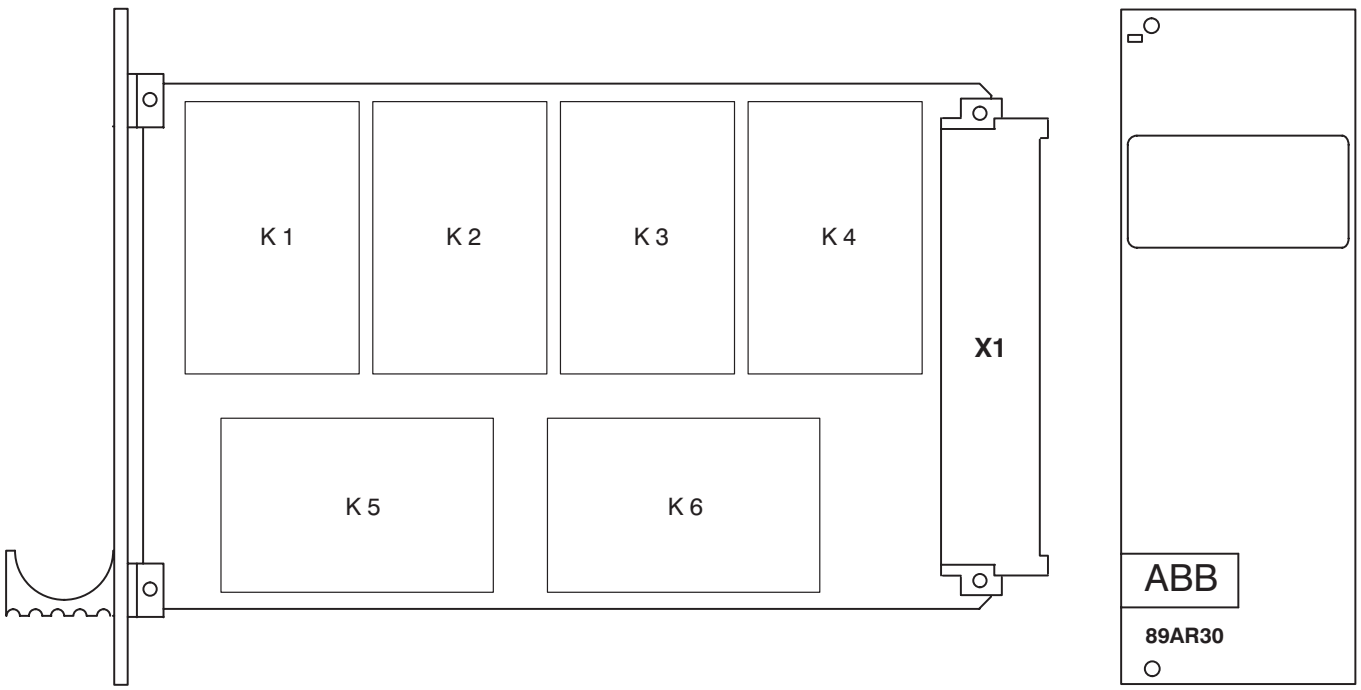
Weight: approx. 0.415 kg

Contact assignments of connector X1

View of the contact side:

	d	*b*	*z*
02	A32	A12	A48
04	A33	A47	A11
06	A34	A24	A44
08	A35	A43	A13
10		A46	
12		A45	
14		A42	
16		A41	
18	A64	A14	A68
20	A63	A15	A67
22	A61	A16	A65
24	A62	A17	A66
26	E51	E3	E1
28	E61	E4	E2
30	E52	E62	Z
32			A31

View of module front and module side



Technical data

In addition to the system data, the following values apply:

Power supply

Operating voltage of the relays	+24 V–
Power dissipation	3 W

Input values

Relay coil:	
Pickup voltage at 20 ˚C	≥ 18 V
Dropout voltage at 20 ˚C	≤ 3.6 V
Coil resistance at 20 ˚C	1152 Ω ± 10 %

Output values

Contact outputs:	
Switching voltage	60 V
Switching current	≤ 2 A
Switching capacity	≤ 120 W

Switching times

Pickup time	< 30 ms
Dropout time	< 20 ms
Bounce time	< 1 ms

Engineering note:
For activation of inductors, certain protection measures need to be provided (e.g. suppressor diode)!

ORDERING DATA

Type designation: 89AR30/R0100

Order number: GKWN000326R0100

Technical data are subject to change without notice!

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