

Evaluation unit

Type KAG2 Non-contact overhead wire contact

KAG2

ESN

Description

The type 8480 evaluation unit is used for signal evaluation for the TLC 4 non-contact overhead wire contact. Both the isolating stage and the signal evaluation section are incorporated in a plastic housing.

The isolating stage includes the power supply for the evaluation and the DC/DC converter for the galvanically isolated power supply of the overhead wire contact (mains switching part). The isolation stage also includes the opto-couplers that transmit the signals coming in from the overhead wire contact galvanically isolated.

The evaluation stage evaluates the incoming signals. Depending on their number, the incoming signals are stored, evaluated and output serially as standard pulses.

Depending on the individual order, the evaluation unit outputs one output pulse per carbon part of the current pickup or else only one output pulse is passed if there are two carbon parts at the current pickup (2 input pulses). The user can carry out the changeover of the input divider by actuating switch S2.

Position 2 → 1 input pulse = 1 output pulse

Position 1 → 2 input pulses = 1 output pulse
(1 current pickup with 2 carbon pieces)

The manufacturer can change the duration of the standard pulse or the division relations, e.g. 4:1, to meet the operational requirements of the user.

Signal error monitoring is also done in addition to the signal processing. The signals or switching states coming in at the 2 signal cables are continuously compared with one another. In the event of an error, further transmission of an output signal is blocked and the error is displayed at the unit by the red LED in the Clear button. A zero-potential contact is available to allow further reporting of the error. The direction of action of the error reporting contact can be reversed by opening the housing and setting switch S3 as appropriate.

The relay is operated on the "quiescent current principle" in position 2 3/4 R. This means that it is triggered in normal situations and the green

LED lights up (standard configuration; yellow LED serves as the function display). If there is an error, the yellow LED goes out and the red LED in the Clear button lights up.

In addition to monitoring all 4 connecting cables to the overhead wire contact and the associated functions, monitoring of the operating voltage is also possible in this default mode.

In position 1 3/4 A the relay operates on the "working current principle", meaning that it is initiated if there is an error, the yellow LED for the function display of the error transmitting relay and the red LED in the Clear button light up at the same time.

The error display remains active until the error has been corrected and the error has been cleared at the evaluation unit or by a remote contact. Special versions, installation in a housing including wiring, on request.



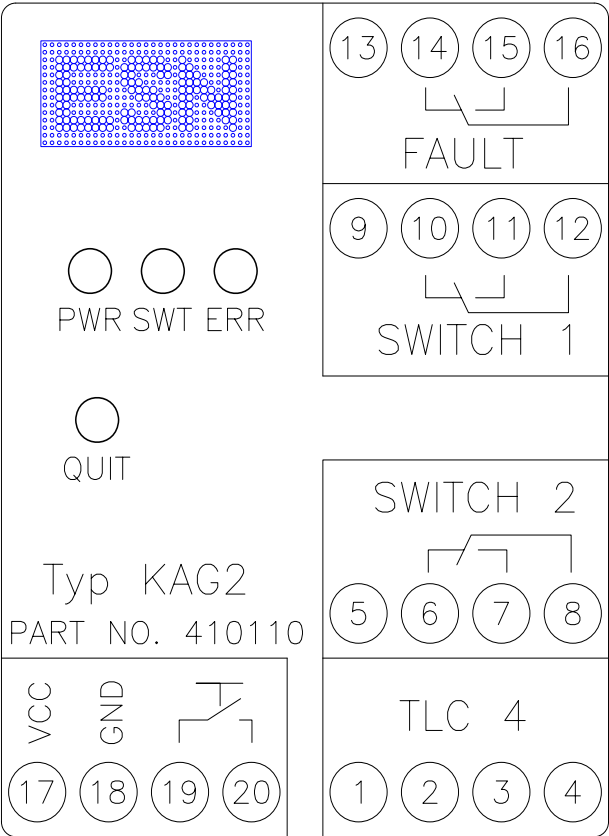
Technical data

Dimensions	WxHxD 150/73/113 mm
Housing material	Terminal plate: Polycarbonate Lower part: ABS
Attachment	Plastic-reinforced glassfibre
Weight	approx. 1.4 kg
Attachment	2 holes to be drilled as per the drilling template, standard carrying rail as per DIN EN 50022
Type of protection	Housing: IP 40; terminals: IP 10
Ambient temperature	-20°C to +70°C
Supply voltage	terminal 31 (N/L-); terminal 32 (L/L+) AC 230 V → 8480 1- DC 18 V - 80 V → 8480 5- Special voltages on request
Current drawn	approx. 10 VA / 5 W
Sensor connection	resistant to short-circuits, terminal 21 (-); terminal 22 (+)
Open-circuit voltage:	DC 24 V ± 5%
max. current	approx. 200 mA
Signal inputs:	2 antivalent inputs, terminals 19/20
max. current	< 35 mA (limited)
Input divider	1 input pulse = 1 output pulse → 8480 11 / → 8480 51 2 input pulses = 1 output pulse → 8480 12 / → 8480 52
Input memory	max. 15 (30) signal pulses can be stored
Relay outputs	2 changeover contacts (zero-potential) terminals 11 - 16 Voltage Current cos φ AC 250 V 4.0 A > 0.7 DC 80 V 1.0 A ohmic load
Signal duration	0.6 s (in the case of multiple signals, breaks likewise 0.6 s), other timings such as 0.5 s to special order
Error	1 changeover contact (zero-potential) terminals 4 - 6 Voltage Current cos φ AC 250 V 4.0 A > 0.7 DC 80 V 1.0 A ohmic load Can be switched between working current and quiescent current
Ext. acknowledgement	Remote acknowledgment (and local) terminals 8 - 9
Voltage at the terminals	DC 15 V; 1k < 20 mA
Test voltage	4 kV _{eff}

Ordering information

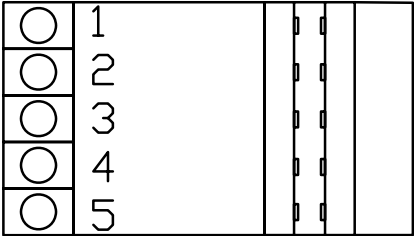
Type	Part No.
KAG2	410110

Switch cabinets wired to hold a maximum of 4 evaluation units, see brochure sheet type 8908



Assignment DIN rail adapter
View from the front:

- # Pin 1: +24 Vdc
- # Pin 2: 0 Vdc
- # Pin 3: free (not 0 Vdc)
- # Pin 4: RS485-A
- # Pin 5: RS485-B



	OFF	DIP-switches	
		function	off / on
8	X	address bit 00	0 / 1
7	X	address bit 01	0 / 1
6	X	reserve	
5	X	input filter	off / on
4	X	relayoutput 2	NO / NC
3	X	fault output	NO / NC
2	X	puls divider	1:1 / 2:1
1	X	output puls time	0,6s / 1s

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