LEG Industrie-Elektronik **GmbH**

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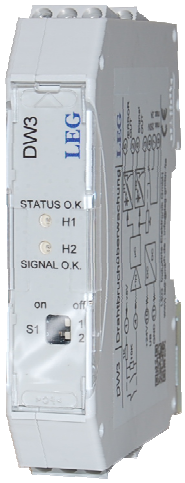
Wire Breakage Monitoring / Line Monitoring for Switch Contacts DW3

Characteristics:

- **N/O / N/C contact monitoring**
- **Status display in front panel**
- **Signal output potential free**
- **Malfunction message output potential free**
- **Supply 24V DC / AC**
- **Mountable on 35mm cap rail TS35**
- **Clear terminal labeling**
- **Narrow design**
- **Shape 17,5mm, super low**
- **PB - Power-Bus compatible**
- **High reliability, 5 years warranty**



Description:

The devices of the wire breakage detector series DW3 have been developed for line monitoring of mechanical switch contacts like for example N/O or N/C contacts for wire breakage or short-circuit. The proper condition of the wire connection is signaled through a potential free electronic contact, which in case of failure opens (closed current condition).The switch condition of the monitored contact is also signaled through a potential free electronic contact and additionally through a relay contact (changeover).This switch condition can be inverted through Dip-switch S1-1.The switch S1-2 is functionless and is intended for later extensions.
For correct function of the monitoring circle appropriate measurement resistances have to be switched directly close to the monitored switch contact. (See drawing)
The N/O's (only single contacts) are monitored for wire breakage, short circuit up to the resistance wiring. With N/C's the monitoring of a complete reporting chain with any number of contacts is possible, however is limited and only for wire breakage in the range of the connection of the reporting chain. (See drawing) However the wire to the resistance wiring of the reporting chain is monitored for wire breakage and short circuit.
The modules are easily mountable on cap rail and need an auxiliary power of 24V DC / AC.

Monitoring:

N/O contact: 1
N/C contact: As many as you like.

Application:

Monitoring of alarm contacts in fire detection systems.

Order. No.:

DW3

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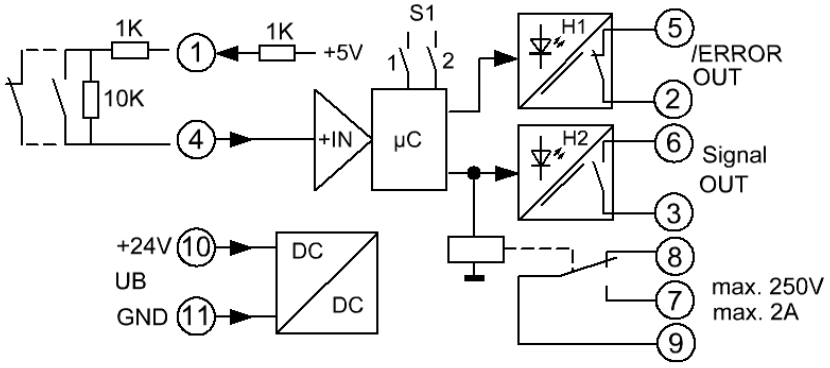

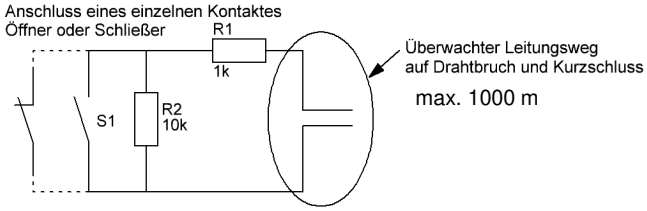

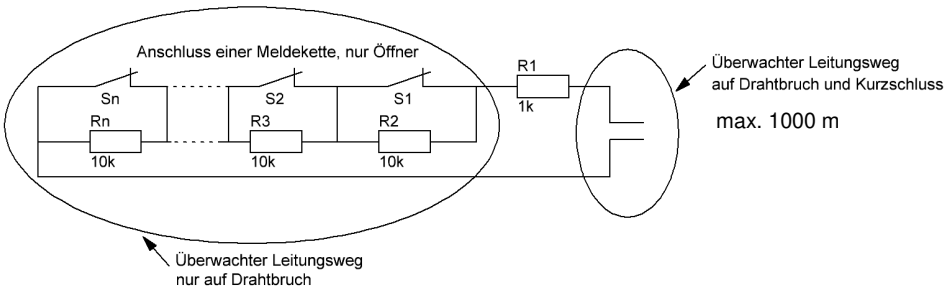

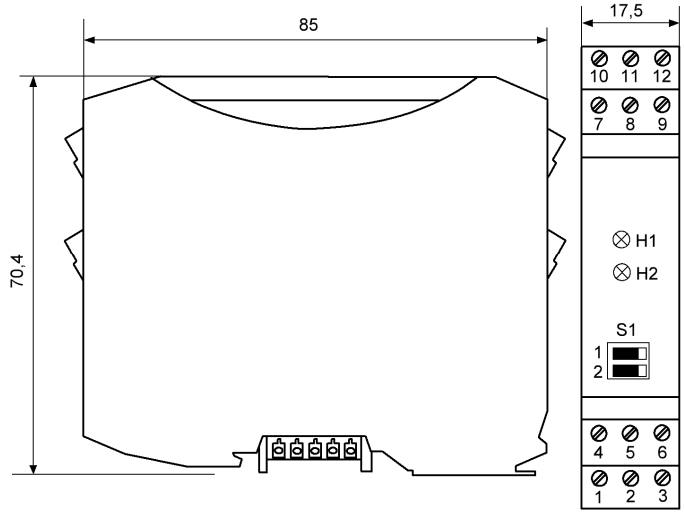

Data-sheet DW3 revision: 08 - 2023

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Technical Data

Auxiliary power:

Supply voltage	:	19, 2…30VDC / 18…28VAC
Current consumption	:	<1VA

Inputs:

N/O contact	:	1 contact
N/C contact	:	Any number of contacts
Measurement current	:	0, 4…3,5mA

Outputs:

Malfunction message-Output	:	Electronic contact max. 40VDCV / 28VAC / max. 100mA (Closed current contact)
Signal output	:	Electronic contact max. 40VDC / 28VAC / max. 100mA
	:	Relay contact max. 250VAC / 30VDC / max. 2A

General data:

Operating temperature	:	0...50°C
Storage temperature	:	-25...+85°C, condensation before putting into operation is not allowed
MTBF		78 years Mean Time Between Failures – according to EN 61709 (SN29500). Conditions: Stationary operation in clean rooms, average ambient temperature 40 °C, permanent operation without forced ventilation
CE conformity	:	EN 61326-1, EN 61000-4-2/3*/4/5/6*, EN 61000-6-4 * during measurements are small deviations possible

Body:

Dimension	:	See drawing, 17,5mm adjoin body, 17,5x70,4x90,5mm (with terminals)
Material	:	PA / V0
Protection category	:	IP20
Connection	:	M3-screw-type terminal 0, 14 - 2,5mm², flexible or inflexible
Fixing	:	Snap-on mounting for norm rail TS35
Weight	:	66g
Mounting position	:	As you like

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Note on safety:

Disconnect the power supply before attempting to open the unit.

During the operation of this module it is possible that parts of the module, even there is extra-low voltage, (for example shunt measurement) are under dangerous voltage! Therefore a non-observance of this caution may cause damage of property or physical injury.
Only trained qualified personnel should install or operate the unit. Before installation the qualified personnel should read the documentation and should familiarize themselves with the unit.
If there is visible damage to the body of the unit it should be immediately replaced and not put into operation.

Please ensure that there is a sufficient prevention against electrostatic discharge during installation of the unit.

Installation Information:

Pay attention and make sure the unit is far away from mounted sources that may disturb the device such as magnetic coils, transformers, frequency converters etc.

Wiring advice:

Use only shielded cables. The shield is to be connected extensively to ground. Do not mix power- and signal-wires/cables in the same cable tray.

Limited warranty:

The LEG Industrie-Elektronik GmbH warranted that the product does not have any material or processing defects in a period of 5 years after date of delivery.
It is up to the choice of LEG to repair or to exchange an inoperative unit.
Subsequent damages or any claim for indemnification above the functionality of the unit are excluded.
This limited warranty is only valid if …

1. the product was installed and put into operation according to the LEG operation documentation;
2. the technical configuration of the power supply was abided;
3. the product was not used for unintended purposes;
4. there were no unauthorized modifications or manipulations, misuse or repairs without previous agreement from LEG .

Our Terms of Trade are based on the “General Conditions for the supply of products and services of the Electrical and Electronics Industry” including the “Complementary Clause: Extended Reservation of Property” of the ZVEI e.V. (German Association of Electrical Manufacturers).

Miscellaneous:

We expressly reserve the right, without previous notice, to correct errors contained in any data of this information brochure, and to make alterations to the program and technical modifications.