

■ **Rotational Direction Detection Unit Type DS 9000**

Highlights

- Direction detection of incremental encoders
- Relay output
- One electronic output channel
- High reliability
- Small dimensions
- Low power consumption



General

The new unit **DS 9000** is used to find out the rotational direction of incremental encoders.

There are two input channels provided. These input channels are optically isolated from the internal circuitry. By this way disturbances by a noisy environment are reduced. The input pulses of the two channels must have 90 degrees out of phase. When using incremental encoders together with this unit the output signals at the output channels are indicating the rotational direction of the encoder. When the power supply is applied to the unit, the relay is not excited and the optocoupler output is non conducting. Input channels, output channels, and power supply are isolated from one another.

Digital Inputs

These input channels can be used to connect an incremental encoder. Functions:

- Input voltage: 5V, 12V and 24V (adjustable by DIP switches)
- Tolerance: a logical "0" will be recognized up to 20 % max. of the nominal input level. (e.g. up to 4,8V at an input level of 24V)
A logical "1" will be recognized at +/- 20% of the nominal input level. (e.g. from 19,2V min. to 28,8V max. at an input level of 24V)
- Input current: 5 mA
- Input frequency: max.25 kHz (other frequencies on inquiry)
- optoisolated

Relay Output / Optocoupler Output

For switching high currents respectively high voltages there is a contact output available. For fast switching requirements there is a optocoupler output provided ("Open Collector").

Construction

The unit **DS 9000** is provided for DIN-rail mounting according to EN 50022.

The case is of Polyamid PA 6.6 (color green).

Power Supply

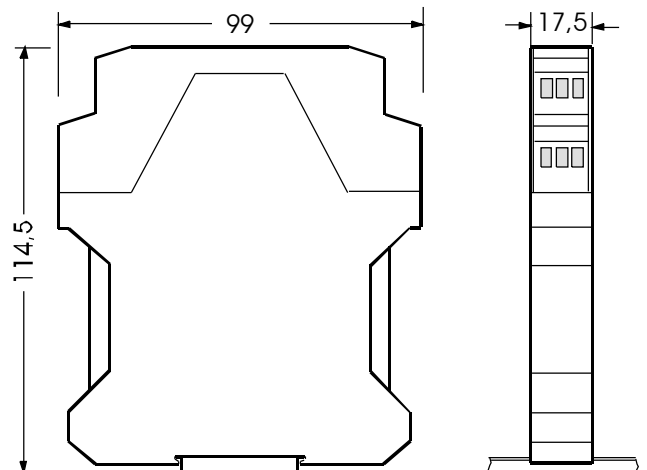
The unit is designed for a power supply from 12 to 32 VDC. The power supply is isolated from the input and output channels.

Specifications

Input channels	: 5V, 12V and 24V (adjustable)
Input current per channel	: 5 mA source current
Input Frequency	: max. 25 kHz
Tolerances of input level	: +/-20% of nominal input level
	: for a logical "1".
	: Max. 20% of the nominal input
	: level for a logical "0".
Optocoupler output	: isolated
Voltage	: max. 30 V
Current	: max. 10 mA
Relay	
Contact ratings	: 3A/250 VAC
Power supply	: 12 V...32 V
Current	: max. 33 mA
Construction	
EMV	: Accord. ENV 50121-3-2
Protection	: IP40
Mounting	: EN 50022
Operating temperature	: -5 to +55 °C
Dimensions	: 99 x 114,5 x 17,5

Ordering Information

DS 9000						
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