



4 Technical Data

4.1 Safety Regulations

VDE 0100	Regulation for mounting power plants with nominal voltages up to 1000 V
VDE 0113 part 1 (DIN EN 60204)	Machines' safety; electrical equipment of machines
VDE 0113 part 101 (DIN EN 60204)	Machines' safety; display, indication, operation
VDE 0160 (DIN EN 50178)	Equipment for power plants with electronic materials
Regulations for the prevention of accidents	particularly VBG 4

EN regulations, national standards, directions of the operating authority

4.2 Supply Voltage

Terminals A1, A2	Power consumption	EDO type	Start input E1 (reference A2)
AC 230 V \pm 10 %, 50 – 60 Hz	< 3 VA	93.045 508.001	AC 230 V
AC 115 V \pm 10 %, 50 – 60 Hz	< 3 VA	93.045 508.007	AC 115 V
DC 24 V \pm 15 %	< 3 VA	93.045 508.005	DC 24 V
DC 48 V to 60 V \pm 15 %	< 3 VA	93.045 508.012	DC 48 V to 60 V

4.3 Reference Data

Switching point deviation	< 1 %
Run-up delay	0 to ~ 40 s (adjustable)
Switching hysteresis	~ 10 % of operating speed (3% and 30 % adjustable via internal potentiometer)

4.4 Input Data

Indicator input/pulse input		Terminals B+, B1, B2, B-	
Indicator type	all 2-wire pulse indicators according to NAMUR (EN 50227), e. g. Kiepe type DG or DK NPN-/PNP 3-wire pulse indicator, e. g. Kiepe type EOG or DGP		
Min. pulse duration of the indicator	≥ 2 ms		
Pulse ranges (adjustable)	Pulses/minute	Switch-off delay in s (excl. relay dropping time)	
1	6 ... 60	10 ... 1	
10	60 ... 600	1 ... 0.1	
100	600 ... 6.000	0.1 ... 0.01	
Start input		Terminals E1 (reference A2)	
Input voltage	93.045 508.001: AC 230 V	93.045 508.012: DC 48 V – 60 V	
	93.045 508.007: AC 115 V	93.045 508.005: DC 24 V	

4.5 Output Data

Relay output		Terminals 15/16/18
Type of contact	1 change-over contact	
max. switching voltage (AC/DC)	≤ 250 V (AC) / ≤ 30 V (DC)	
max. switching current (AC/DC)	≤ 8 A	
max. switching capacity (AC/DC)	≤ 2000 VA (AC) / 30 W (DC)	
Triggering time of the relay	200 ms (Please observe the triggering time of the relay in case that the speed monitoring device and a drive are commonly switched on/off.)	

4.6 Switch-off Delay (adjustable)

Min. delay time	Jumper field on the circuit board (26), (s. section 6.1.4)
Fixed values to be set:	approx. 0.5 s/ 2.5 s/ 10 s (requires an additional bridge between terminals Y21 - Y22)

4.7 Environment

Permissible operating temperature	- 25 °C to + 70 °C
Permissible storage temperature	- 25 °C to + 70 °C

4.8 Design

Protection class	Housing: IP 30, according to DIN VDE 0470, part 1 (EN 60529) Terminals: IP 20, according to DIN VDE 0470, part 1 (EN 60529)
Protection class incl. ISO housing	IP 65, according to DIN VDE 0470, part 1 (EN 60529)
Line cross section	max. 2.5 mm ²
Dimensions (w x h x d)	55 mm x 75 mm x 110 mm (+ approx. 10 mm for the setting buttons)
Fastening	Mounting on 35 mm hat-rails according to EN 50 022 Mounting by fastening screws onto switch boards or in ISO housing
Built-in position	any
Weight	approx. 330 g (AC) approx. 250 g (DC)

4.9 EDO Dimensions

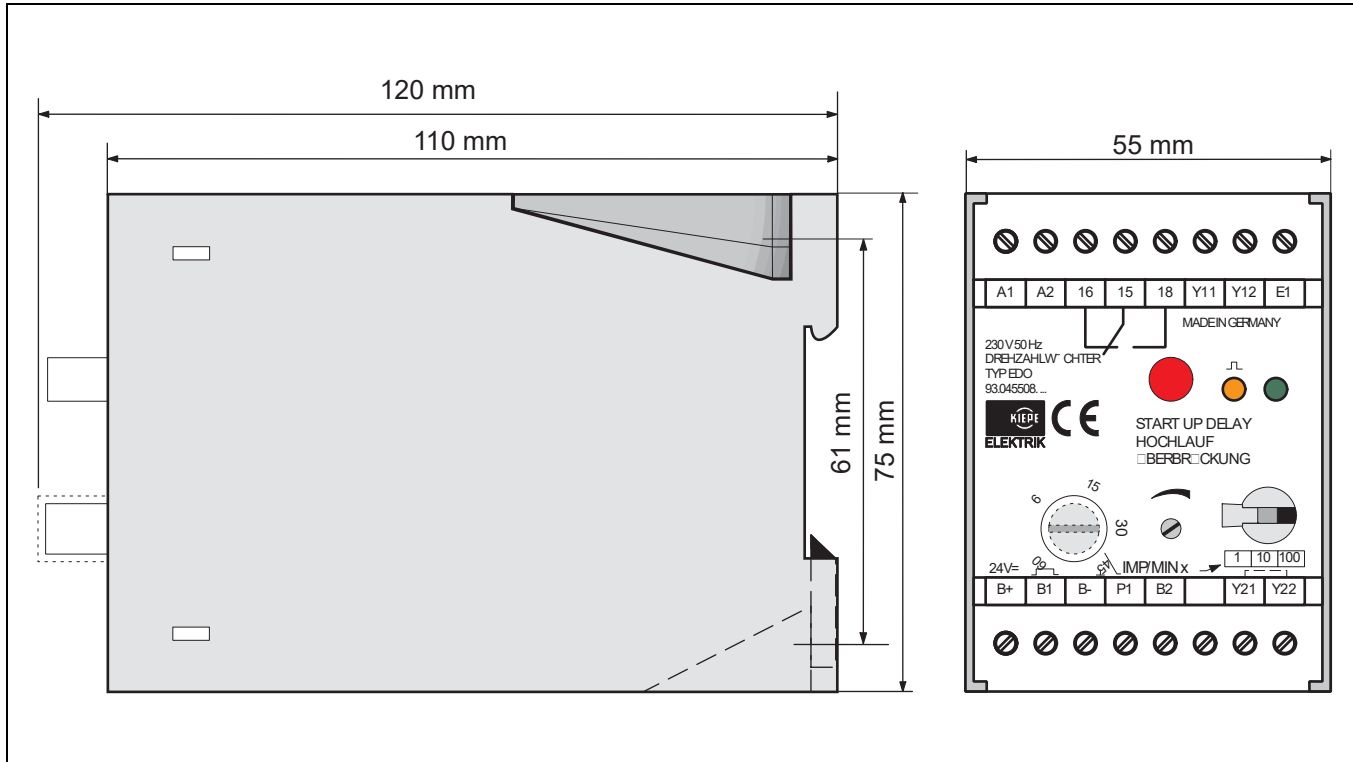


Fig. 4-1: EDO, dimensions

4.10 EDO Built-in dimensions ISO housing

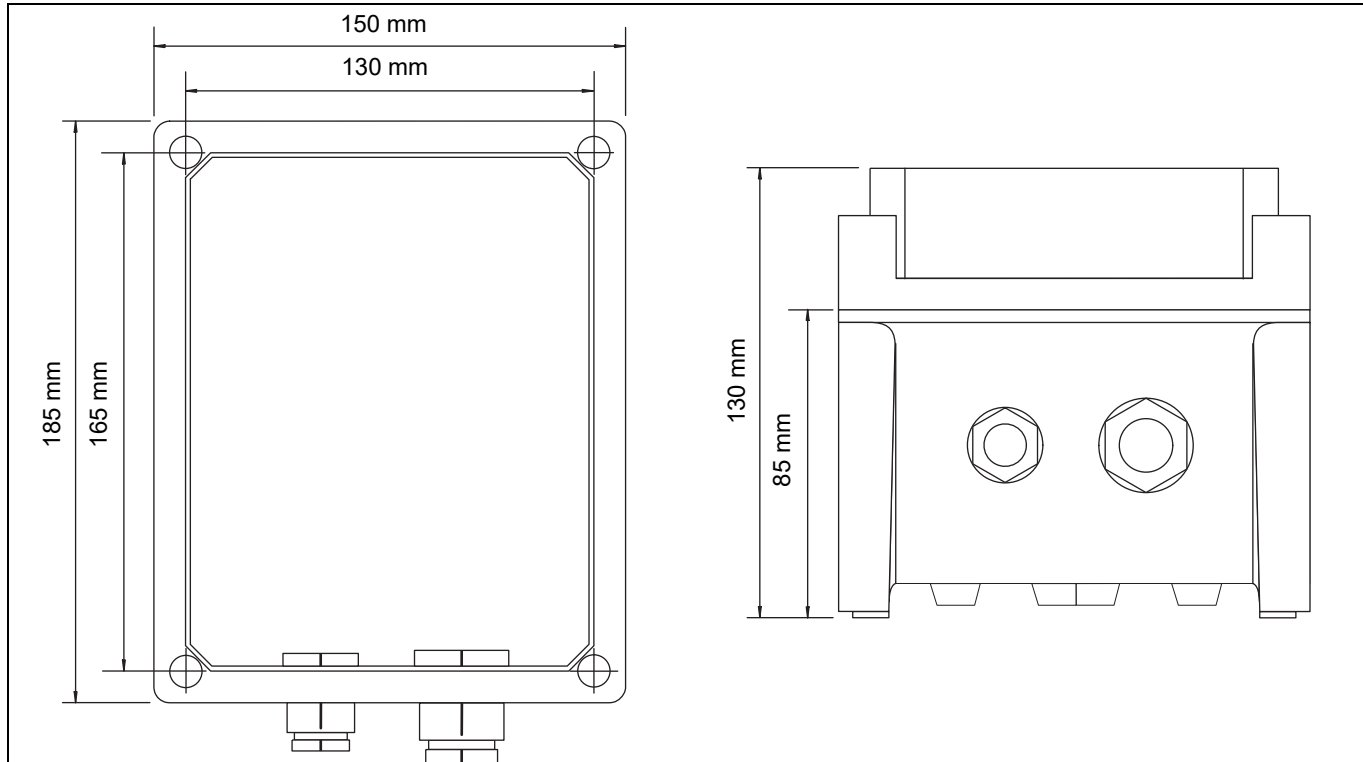


Abb. 4-2: Built-in dimensions ISO housing



5 Mounting and Dismounting

5.1 Scope of Delivery

The rotational speed monitoring device EDO is delivered ready for operation. Fastening screws etc. are not included in the scope of delivery. If required, the rotational speed monitoring device can be delivered completely wired in a ISO housing (incl. transparent hood).

5.2 Mounting



Danger of electric shocks!

The mounting and the electrical connection may only be carried out by qualified electricians.

Before mounting, disconnect the plant from the power supply and prevent it from being switched on again. Cover live parts in the vicinity to prevent any contact.



Attention!

Choose the mounting location and the built-in position in such a way that the device can be securely operated.

The rotational speed monitoring device can be mounted in two ways:

1. Mounting on a hat-rail, according to EN 50022
2. Wall mounting with two fastening screws

Choose any built-in position, however, observe that the speed monitoring device can be securely operated.



If you want to modify the operating mode of the speed monitoring device, prior to the mounting you must set the jumper (27) on circuit board (26) correspondingly. For this, the circuit board (26) of the speed monitoring device must be pulled out of the plastic housing (8) (s. section 6.1.1).