

## DS 93

Programmable, digital speed switch  
3 adjustable switching speeds

### Overview

- Freely programmable on and off switching speed
- 3 adjustable switching speeds
- Actual speed indicator
- Switching points adjustable up to 20000 rpm
- Switching points can be adjusted individually for both rotating directions
- Suitable for rugged environment



### Technical data

#### Technical data - electrical ratings

Voltage supply	15...26 VDC
Consumption w/o load	≤200 mA
Switching accuracy	± 3 % (or Digit)
Switching outputs	3 outputs, speed control
Output switching capacity	12 VDC; ≤40 mA ≤40 mA (EAC: <50 VAC / 75 VDC)
Switching delay time	≤40 ms
Inputs	HTL TTL
Input signals	K1, K2 + inverted
Interference immunity	EN 61000-6-2

#### Technical data - electrical ratings

Emitted interference	EN 61000-6-3
Approval	CE

#### Technical data - mechanical design

Dimensions W x H x L	122 x 122 x 80 mm
Protection EN 60529	IP 65
Range of switching speed (ns)	Pulses = 512: ±120...20000 rpm Pulses = 1024: ±60...10000 rpm Pulses = 2048: ±30...5000 rpm Pulses = 2500: ±25...4096 rpm
Operating temperature	-20...+70 °C
Connection	Connecting terminal
Material	Housing: aluminium die-cast

### Optional

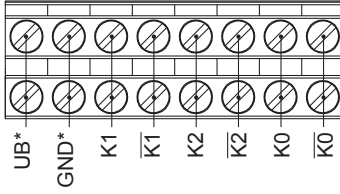
- Relay module DS 93 R with three relay outputs with isolated changeover contacts

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## Terminal assignment

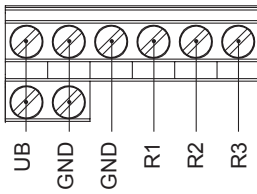
### Terminal 1



\* Encoder

### Terminal 2

Line driver

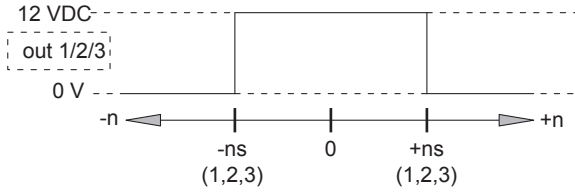


## Switching characteristics

### Speed switch

n = speed

ns = adjusted switching speed

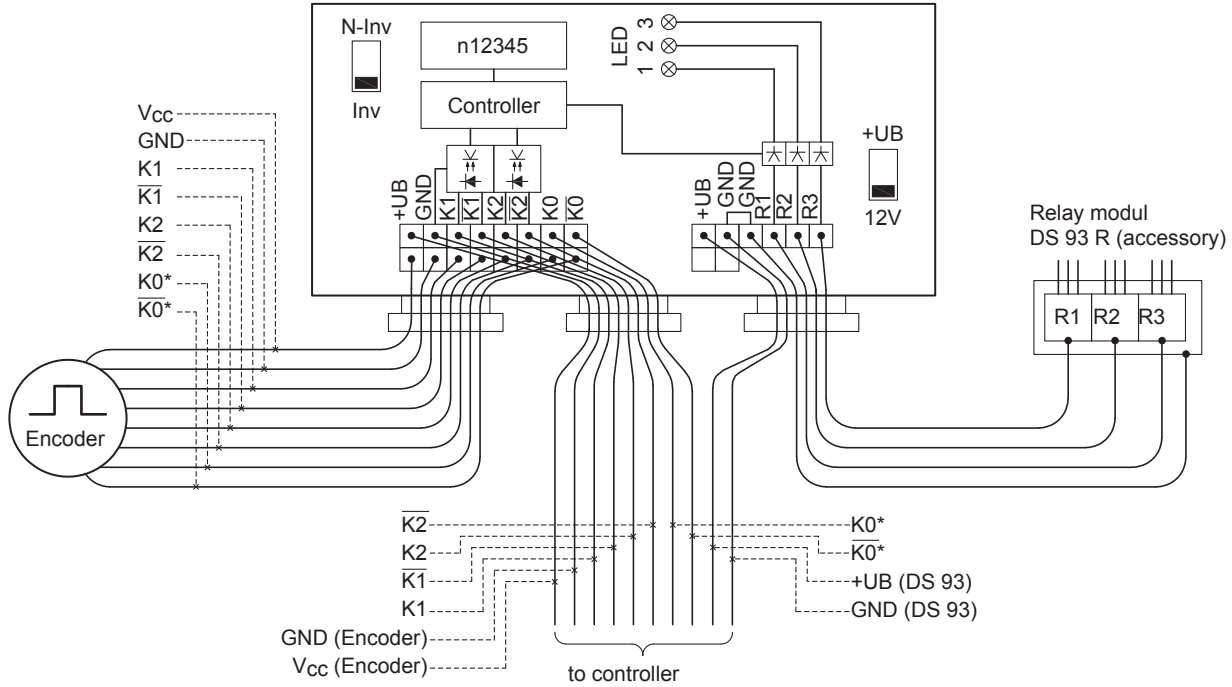


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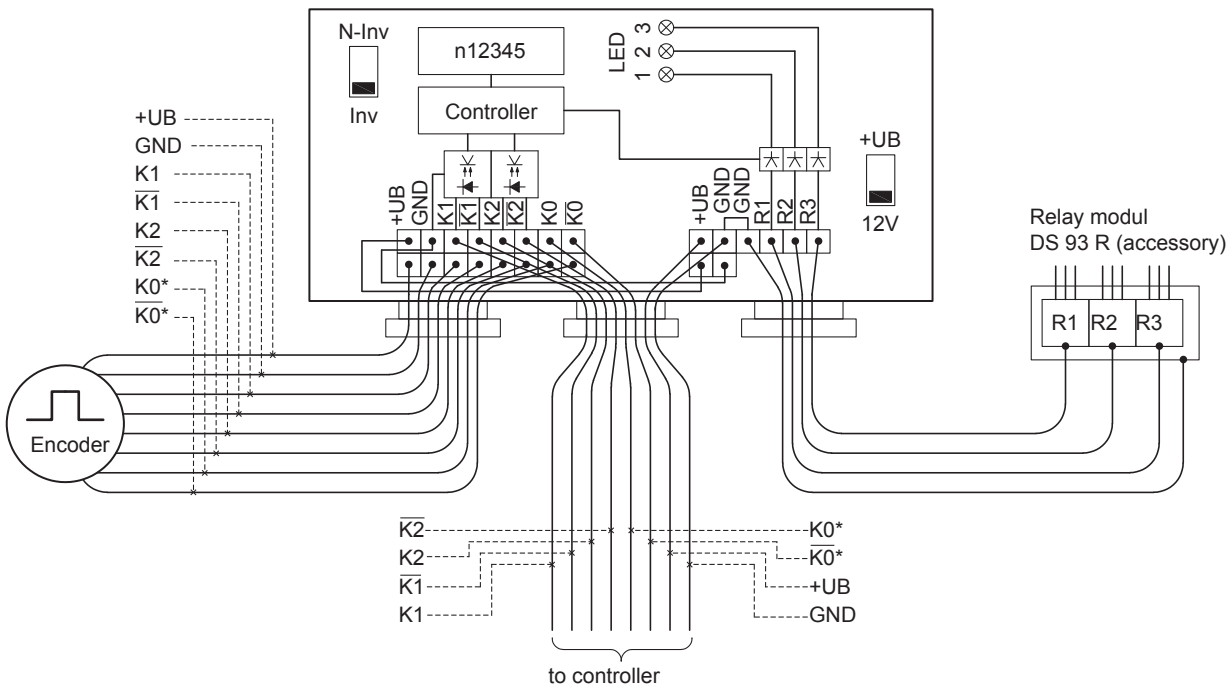
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## Block circuit diagram

Circuit design standard with inverted signals



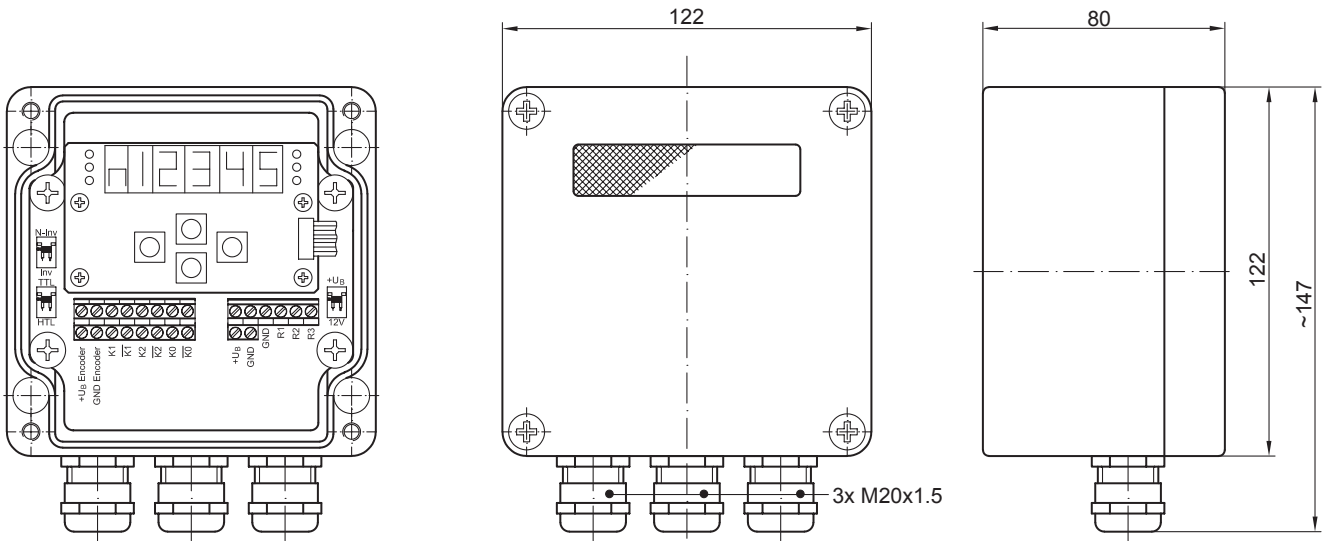
Circuit design only one UB with inverted signals



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## Dimensions



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### Accessories

#### Relay moduls

11016072	Relay modul DS 93 R
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