

# Speed switches

## Mechanical centrifugal switch

FS 90



FS 90

### Features

- Mechanical speed monitoring based on centrifugal force
- Fixed switching speed
- Switch with insulated make and break contact

### Optional

- As integrated centrifugal switch type FSL for combination with encoders and/or tachogenerators

### Technical data - electrical ratings

Switching accuracy	$\pm 4\%$ ( $\Delta n = 2$ rpm/s); = $+20\%$ ( $\Delta n = 1500$ rpm/s)
Switching deviation	$\leq 3\%$ (cw-ccw rotation)
Switching hysteresis	$\sim 40\%$ of switching speed
Switching outputs	1 output, speed control
Output switching capacity	$\leq 6$ A / 230 VAC $\leq 1$ A / 125 VDC
Minimum switching current	50 mA
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approval	CE

### Technical data - mechanical design

Size (flange)	$\varnothing 115$ mm
Shaft type	$\varnothing 11$ mm solid shaft
Flange	EURO flange B10
Protection DIN EN 60529	IP 55
Speed (n)	$\leq 1.25 \cdot n_s$
Range of switching speed (ns)	850...4500 rpm ( $\Delta n = 2$ rpm/s)
Operating torque	$\leq 2$ Ncm
Rotor moment of inertia	0.35 kgcm <sup>2</sup>
Admitted shaft load	$\leq 150$ N axial $\leq 250$ N radial
Operating temperature	$-30 \dots +130$ °C
Weight approx.	900 g
Connection	Terminal box
Materials	Housing: aluminium die-cast Shaft: stainless steel

# Speed switches

## Mechanical centrifugal switch

FS 90

### Part number

FS90 ...

Switching speed (ns)  
... 850...4500 rpm ( $\Delta n = 2$  rpm/s)

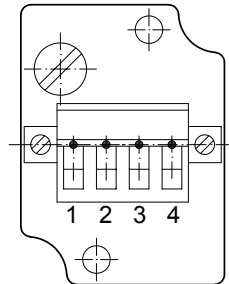
### Accessories

#### Mounting accessories

K 35	Spring washer coupling for solid shaft $\varnothing 6...12$ mm
K 50	Spring washer coupling for solid shaft $\varnothing 11...16$ mm
K 60	Spring washer coupling for solid shaft $\varnothing 11...22$ mm

### Terminal assignment

View A - Connecting terminal mechanical speed switch



Make contact



Break contact

### Dimensions

