

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	≤ 6 A / 230 VAC ≤ 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)	$\leq 1.25 \cdot ns$
Range of switching speed (ns)	850...4500 rpm ($\Delta n = 2$ rpm/s)
Operating torque	≤ 2 Ncm
Rotor moment of inertia	0.35 kgcm ²
Admitted shaft load	≤ 150 N axial ≤ 250 N radial
Operating temperature	$-40 \dots +130$ °C
Corrosion protection	IEC 60068-2-52 Salt mist for ambient conditions C4 according to ISO 12944-2
Weight approx.	900 g
Connection	Terminal box
Materials	Housing: aluminium die-cast Shaft: stainless steel

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Part number

FS90 ...

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

Accessories

Mounting accessories

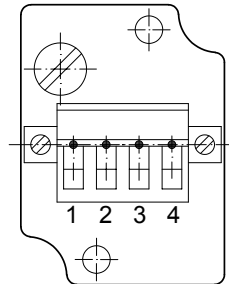
Spring Spring washer coupling
washer, shaft for solid shaft $\varnothing 6...12$ mm
 $\varnothing 6...12$ mm
- K 35

Spring Spring washer coupling
washer, shaft for solid shaft $\varnothing 11...16$ mm
 $\varnothing 11...16$ mm
- K 50

Spring Spring washer coupling
washer, shaft for solid shaft $\varnothing 11...22$ mm
 $\varnothing 11...22$ mm
- K 60

Terminal assignment

View A - Connecting terminal mechanical speed switch



Make contact



Break contact

Dimensions

