

Overview

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



Technical data

Technical data - electrical ratings

Switching accuracy	± 4 % ($\Delta n = 2 \text{ rpm/s}$); 20 % ($\Delta n = 1500 \text{ rpm/s}$)
Switching deviation	≤ 3 % (cw-ccw rotation)
Switching hysteresis	40 % of switching speed
Switching outputs	1 output, speed control
Output switching capacity	≤ 6 A / 230 VAC ≤ 1 A / 125 VDC (EAC: < 50 VAC / 75 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)	ø115 mm
Shaft type	ø11 mm solid shaft
Flange	EURO flange B10

Technical data - mechanical design

Protection EN 60529	IP 55
Speed (n)	≤ 1.25 · ns
Range of switching speed (ns)	850...4500 rpm ($\Delta n = 2 \text{ rpm/s}$)
Operating torque	≤ 2 Ncm
Rotor moment of inertia	0.35 kgcm ²
Admitted shaft load	≤ 150 N axial ≤ 250 N radial
Operating temperature	-40...+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
Material	Housing: aluminium die-cast Shaft: stainless steel

Optional

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

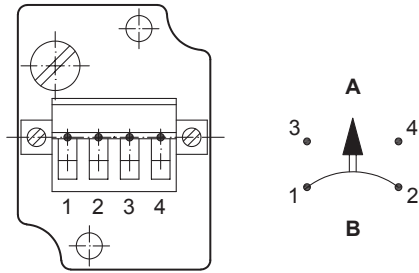
General information

The constructive design of the centrifugal switch is its use as a switch with positive break function. It must not be used as a continuous switch (switching cycles greater than 500 during service life).

Terminal assignment

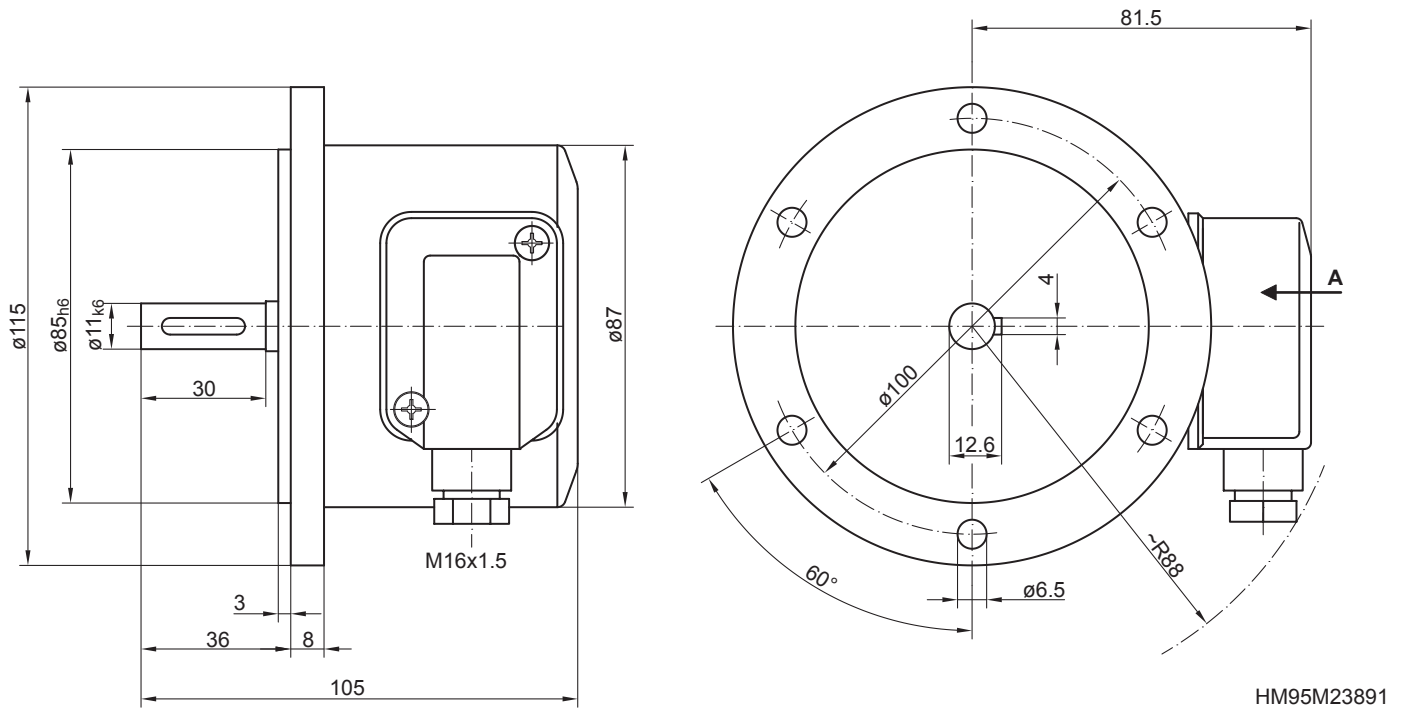
View A (see dimension)

Connecting terminal



A = make contact, **B** = break contact

Dimensions



2023-08-23 The product features and technical data specified do not express or imply any warranty. Technical modifications subject to change.

FS 90

Mechanical centrifugal switch

Ordering reference

	FS90	#####
Product		
Mechanical centrifugal switch	FS90	
Switching speed (ns)		
850...949 rpm ($\Delta n = 2$ rpm/s)		6 ...
950...1099 rpm ($\Delta n = 2$ rpm/s)		5 ...
1100...1299 rpm ($\Delta n = 2$ rpm/s)		4 ...
1300...1799 rpm ($\Delta n = 2$ rpm/s)		3 ...
1800...2499 rpm ($\Delta n = 2$ rpm/s)		2 ...
2500...4500 rpm ($\Delta n = 2$ rpm/s)		1 ...

Please specify the exact switching speed in addition to the part number (factory setting).

Accessories

Mounting accessories

- Spring disk coupling K 35 (shaft $\varnothing 6...12$ mm)
- Spring disk coupling K 50 (shaft $\varnothing 11...16$ mm)
- Spring disk coupling K 60 (shaft $\varnothing 11...22$ mm)