

1.10. Rotary Cam Switch KSW50

LEONARD rotary cam switches KSW50 (see figure 1.10.1 to 1.10.3) are cased in housings made of cast aluminum and fitted out with mechanic switching elements. The technical data of all available switching elements are listed in figure 1.0.1.

Despite of their minor dimensions our mini switchgears KSW50 are robust and reliable devices, which come up to the highest requirements. Due to their small construction these rotary cam switches are space-saving and good value.

The rotary cam switches KSW50 are normally available with 1 to 12 switching elements. This mini rotary cam switches could be supplied with direct drive or with a gearbox inside. The gearboxes have a life lubrication. The cam shaft is mounted in deep groove ball bearings and maintenance-free.

The illustrations 1.10.4 to 1.10.6 show the three different constructions of this rotary cam switch: standard mounted (KSW50), foot mounted (KSWFu50) or with a pre-flanged angular gear unit (KSWW50). The angular gear unit has a ratio of 1:1 and is rotatable ($4 \times 90^\circ$).

To actuate the individual switching elements the cam shaft is fitted with cam disk sets in a pitch of 14,8 mm. Roller levers manipulate the individual switching elements.

The infinitely adjustable cam disk sets, which run almost entirely free from unbalance by virtue of their special design, are individually tensioned by disc springs. This tension is such that all cam disk sets can be adjusted when the clamp nut is slackened. After setting all the cam disk sets the complete adjustment can be checked on start up for trial operation. Only after all switching adjustments have been tested, the clamp nut is tightened against the disc spring. All cam disk sets are positively located in the position set.

The normal cam rings have 180° long cams. For switching elements with force separation the cam rings are available with cam length of 15° , 30° , 45° or 90° . The cam rings, which have a diameter of 50 mm, are made of wear-resistant plastic. They have index marks with a graduation of 10° , though a precise switching angle resolution is provided.

The housing of the rotary cam switch is made of aluminum alloy and painted in RAL6011. Optional the switch can be supplied in a seawaterproof performance. All housings have two cable entries M32. The cover is connected to the housing by a thread and an O-ring seal. The rotary cam switch could be mounted with 4 screws M6. Please have a look at all dimensions in figure 1.10.4 to 1.10.7.

If a rotary cam switch with a gearbox is required, the spur gear unit will be integrated in the housing of the switch. The gearboxes have a life lubrication. They are maintenance free. The normal ratios of our gearboxes are as follows:

2:1	5:1	10:1	30:1	100:1
3:1	6:1	12:1	50:1	
4:1	8:1	20:1	70:1	

Other ratios on request.



Fig. 1.10.1:
Rotary Cam Switch KSW50-04 TE G 1:3
without Cover



Fig. 1.10.2:
Rotary Cam Switch KSWFu50-03 S
without Cover



Fig. 1.10.3:
Rotary Cam Switch KSWW50-04 S G 40:1
without Cover

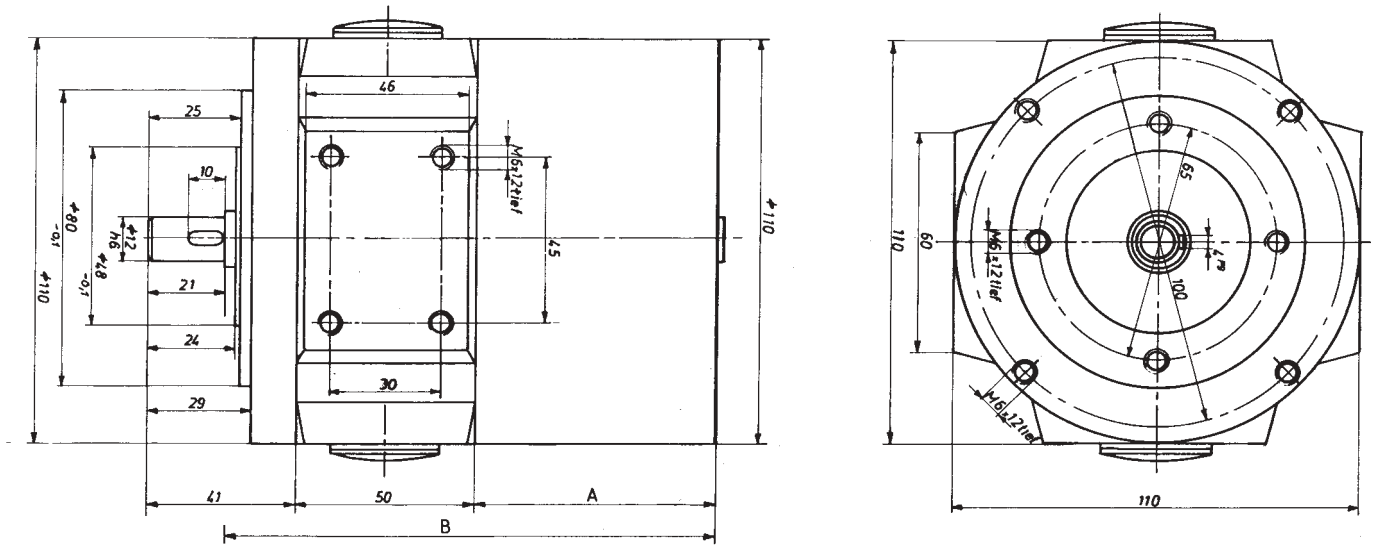


Fig. 1.10.4: Dimensioned Drawing KSW50

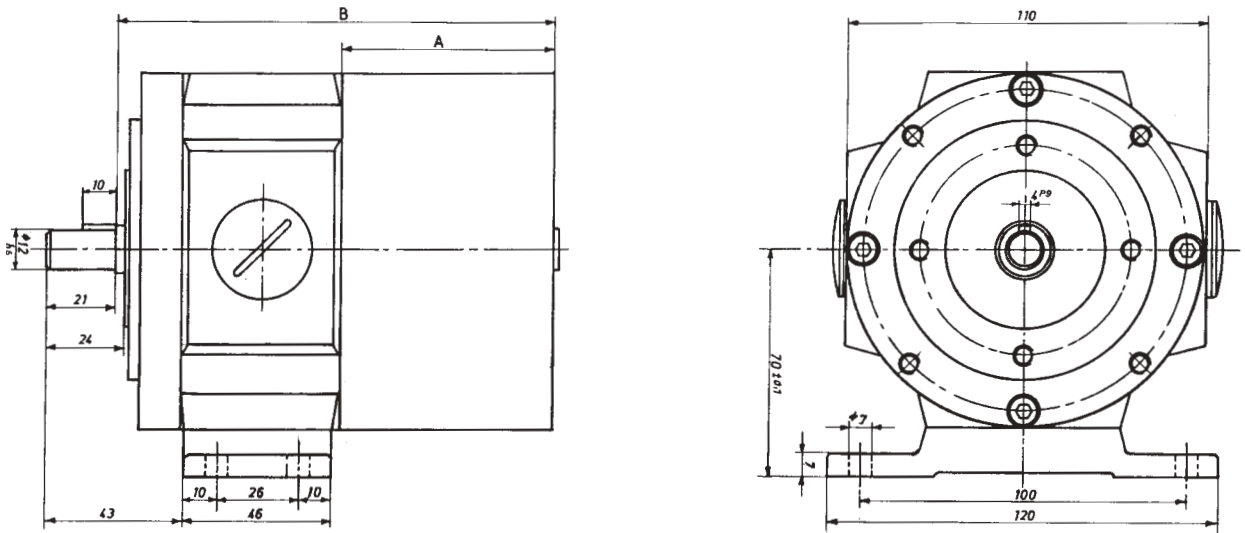


Fig. 1.10.5: Dimensioned Drawing KSWFu50

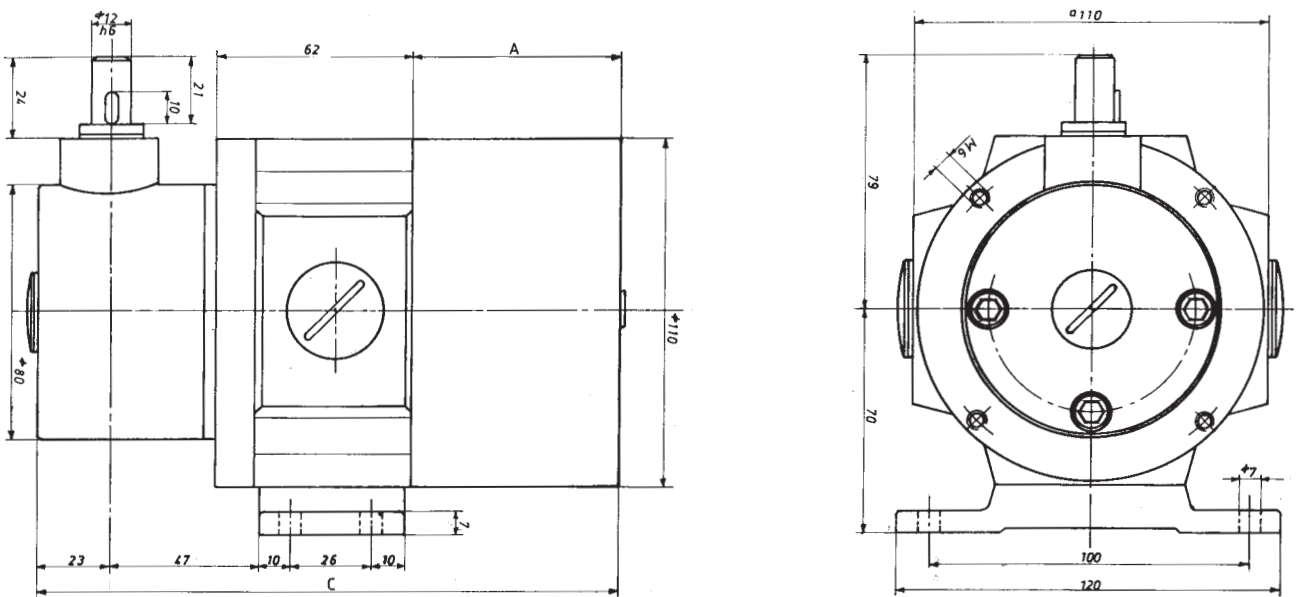


Fig. 1.10.6: Dimensioned Drawing KSWW50

Fig. 1.10.7: Table of Dimensions KSW50, KSWFu50 and KSWW50

number of switching elements	A [mm]	B [mm]	C [mm]	weight [kg] KSW50	weight [kg] KSWFu50	weight [kg] KSWW50
1	75	147	191	1,5	1,7	2,3
2	90	162	206	1,7	1,8	2,4
3	105	177	221	1,8	1,9	2,5
4	120	192	236	1,9	2,1	2,7
5	135	207	251	2,0	2,2	2,8
6	150	222	266	2,2	2,3	2,9
7	165	237	281	2,3	2,4	3,0
8	180	252	296	2,4	2,6	3,2
9	195	267	311	2,5	2,7	3,3
10	210	282	326	2,7	2,8	3,4
11	225	297	341	2,8	2,9	3,5
12	240	312	356	2,9	3,1	3,7
exclusiv gear (ca. 1,0 kg)						

Ordering instructions for type KSW50:

Baureihe	number of switching elements *1)	type of switching elements	gearbox *2)	drive side (input) *2)
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Product overview:

KSW50-	01	S	[no statement]	[no statement]
KSWFu50-	02	TE	G	see above
KSWW50-	03			
	04			
	05			
	06			
	07			
	08			
	09			
	10			
	11			
	12			

Example:

KSWW50-06 TE G 50:1

*1) If the rotary cam switch is not fitted out with the complete number of switching elements, we need the max. possible number of switching elements. The actually fitting must be described "in plain text"!

*2) We don't need this information for a rotary cam switch without a gearbox.

If you need a rotary cam switch with different switching elements or a switch in a special design, please give a precise description "in plain text"!