

MINIATURE LIMIT SWITCHES 83 136

DATA SHEET

no: KK- ŁK_83136







Limit switches are controlled with an appropriate drive element. The position and speed of movement corresponding to mobile contacts, and the time needed to switch them over, depend on the position and speed of travel corresponding to the drive element that acts on the pusher with an appropriate force. This way, appropriate contacts of the switch are either closed or opened. The arrangement of mobile contacts is not stable, which means that they automatically return to their home position, once the force acting on the pusher disappears. Limit switches are intended to be used in automated drive systems and control, monitoring, and measuring circuits that operate under alternating and direct currents. Double-module switches of the 83 136 series have no enclosures, but there are 2NO and 2NC mobile contacts installed inside their plastic bodies. Switches of the 83 136 series have M3 screw connection clamps with serrated lock washers (WW3).



TECHNICAL DATA:

Parameter	Value	
	Without enclosure (83 136)	In enclosure (83 758 32)
Rated insulation voltage U_i	400V	
Rated switching voltage U_e/I_e AC15 [V/A] DC13 [V/A]	400V/2,5A (50 Hz) 220V/0,16A	
Rated continuous current I_u	16A	10A
Type of fuse-element	Bi-Wts 16 A	
Rated limited withstand current	1000 A	
Mechanical life: Switches without an additional drive Switches with a telescopic pusher Switches with a lever-based drive Switches with an installed driving head, controlled with a telescopic pusher Switches with an installed revolving-driving head	5x10 ⁶ 3x10 ⁶ 4x10 ⁶	3x10 ⁶ 2x10 ⁶
Electrical endurance: AC15 DC13	0,10x10 ⁶ 0,10x10 ⁶	0,1 x 10 ⁶
Rated frequency of switching [switches/h]	3600	1200
Speed of the drive element [m/s]	17x10 ⁻⁶ ...1	10 ⁻⁴ ...1 pusher 10 ⁻³ ...1 revolving lever
Cross-section of single-wire terminals [mm]	1,0...2,5	1,0...1,5
Ambient temperature	-25...+40 °C	
Protection class of the body/of terminals	IP40/IP00	IP65/IP65
Max force required to switch over	6	20 or 0,2Nm for revolving heads
Type of gland	Dp 13,5	
Operation of contacts	snap action	


The product conforms to the following standard PN-EN 60947-5-1.

TYPES OF MINIATURE LIMIT SWITCHES 83 136







	Designation	Description	Catalogue no.	Weight (g)
	83 136	Basic miniature switch with two connection elements (switches) A & B that interact with one another after an appropriate delay, controlled with a plastic pusher. Connection elements with two current circuits and a double-break change-over contact of the same polarity, with four connection clamps.	59-792012	38
	83 136.3	Miniature switch with a plastic pusher of a reduced length, with two connection elements (switches) A & B that interact with one another after an appropriate delay, controlled with a short plastic pusher. Connection elements with two current circuits and a double-break change-over contact of the same polarity, with four connection clamps (used in metal enclosures).	59-792022	37
	83 136 1	Miniature switch with an additional drive (a telescopic pusher), with two connection elements (switches) A & B that interact with one another after an appropriate delay, controlled with a telescopic pusher. Connection elements with two current circuits and a double-break change-over contact of the same polarity, with four connection clamps.	59-782012	70
	83 136 58A	Miniature switch with an additional drive (an angled lever), with two connection elements (switches) A & B that interact with one another after an appropriate delay, controlled with an angled lever. Connection elements with two current circuits and a double-break change-over contact of the same polarity, with four connection clamps.	59-781022	42
	83 136 58E	Miniature switch with an additional drive (an angled lever with a roll in the axis of the lever), with two connection elements (switches) A & B that interact with one another after an appropriate delay, controlled with an angled lever with a roll in the axis of the lever. Connection elements with two current circuits and a double-break change-over contact of the same polarity, with four connection clamps.	59-781042	42

	83 136 58F	Miniature switch with an additional drive (a straight lever with a roll in the axis of the lever), with two connection elements (switches) A & B that interact with one another after an appropriate delay, controlled with a straight lever with a roll in the axis of the lever. Connection elements with two current circuits and a double-break change-over contact of the same polarity, with four connection clamps.	59-781062	40
	83 136 58G	Miniature switch with an additional drive (an angled lever with a roll in the axis of the lever), with two connection elements (switches) A & B that interact with one another after an appropriate delay, controlled with an angled lever with a roll in the axis of the lever. Connection elements with two current circuits and a double-break change-over contact of the same polarity, with four connection clamps.	59-781082	43

TYPES OF LIMIT SWITCHES 83 758 32

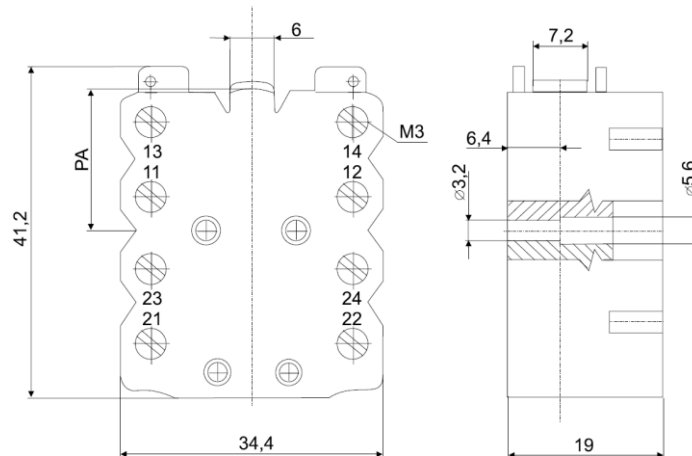
	Designation	Description	Catalogue no.	Weight (g)
	83 758 32	Body of a limit switch, equipped with 83 136 miniature switch	56-503022	340

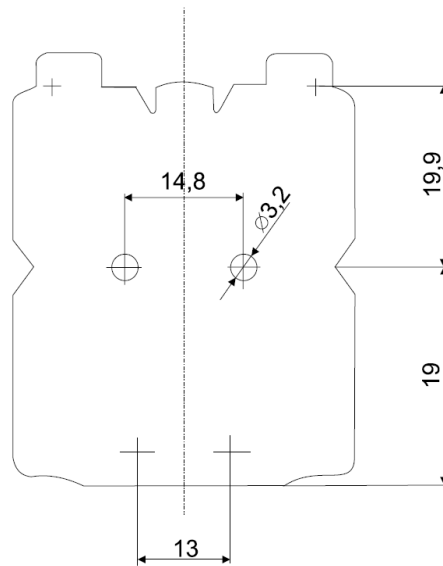
TYPES OF HEADS FOR LIMIT SWITCHES 83 758 32

	Designation	Description	Catalogue no.	Weight (g)
	81050 02	Driving head with a return force, controlled with a vertical pusher	56-519032	170
	81050 12	Driving head with a return force, controlled with a vertical pusher with a roll	56-519042	180
	81050 22	Driving head with a return force, controlled with a side pusher	56-519012	220
	81050 32	Driving head with a return force, controlled with a side pusher and a horizontal roll	56-519022	240
	81050 42	Driving head with a return force, controlled with a side pusher and a vertical roll	56-519092	230
	81050 52	Revolving head with a spindle, with a return force, and a left-sided direction of operation	56-519052	230
	81050 62	Revolving head with a spindle, with a return force, and a right-sided direction of operation	56-519062	230
	81050 72	Revolving head with a spindle, with a return force, and a left- and right-sided direction of operation	56-519072	230
	81050 82	Revolving head with a spindle, without a return force; right-side: actuation, left-side: disconnection	56-519082	230

TYPES OF LEVERS FOR LIMIT SWITCHES 83 758 32

	Designation	Description	Catalogue no.	Weight (g)
	79 210 371 2	Straight lever with a roll	56-514352	27
	79 210 372 2	Straight lever with a roll, adjustable length	56-514312	48
	79 210 373 2	Two-arm lever with rolls	56-514332	49
	79 210 375 2	Lever with a spring	56-514282	41
	79 210 393 2	Straight lever (bar type)	56-514292	33

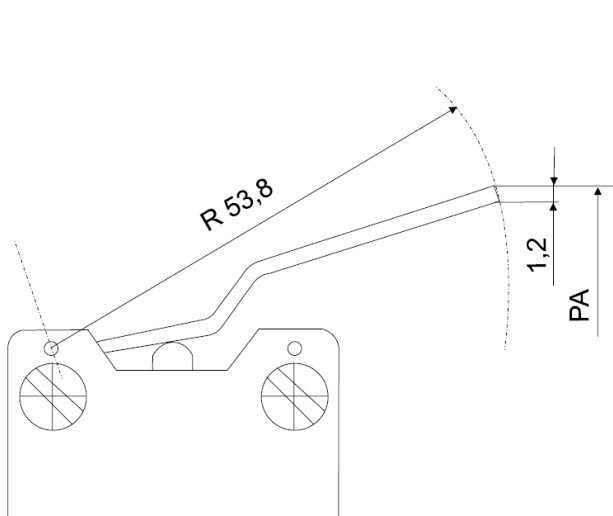
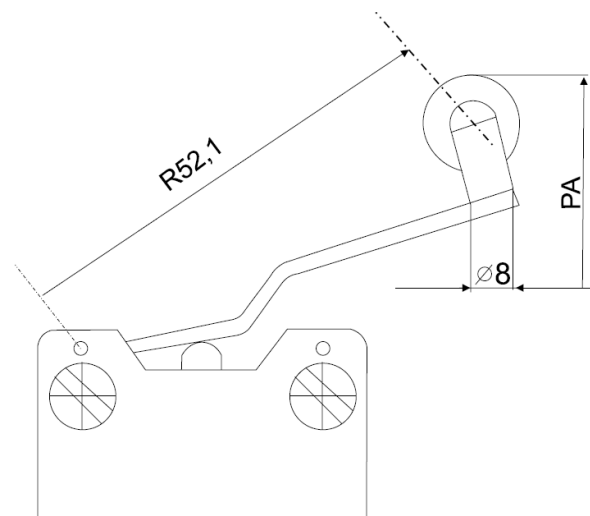
DIMENSIONS


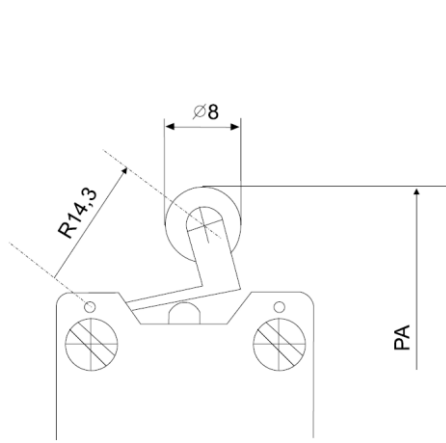


Permissible driving force	Force required to switch back	Travel after switching over	Travel needed to switch back
FFC [N]	FR [N]	CRA [mm]	CD [mm]
max. 20	min. 1	min. 0,8	0,6 ^{±0,25}

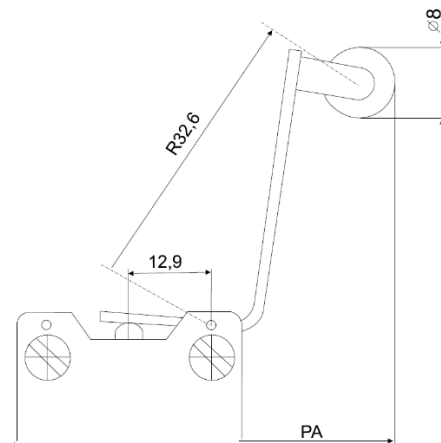
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Type of switch	Active length of lever	Position of operation	Travel to switch over	Force needed to activate
	[mm]	PA [mm]	CA [mm]	FC [N]
83 136	-	19,6 ^{±0,4}	max. 1,5	max. 6
83 136 1	-	-	2 ^{±1}	max. 14
83 136 58A	53,8	25,3 ^{±1,1}	max. 6,3	max. 1,45
83 136 58E	52,1	37,2 ^{±1}	max 6	max. 1,5
83 136 58F	14,3	29,8 ^{±0,25}	max. 4,5	max. 6
83 136 58G	32,6	23,2 ^{±0,4}	max 3,6	max. 2,5

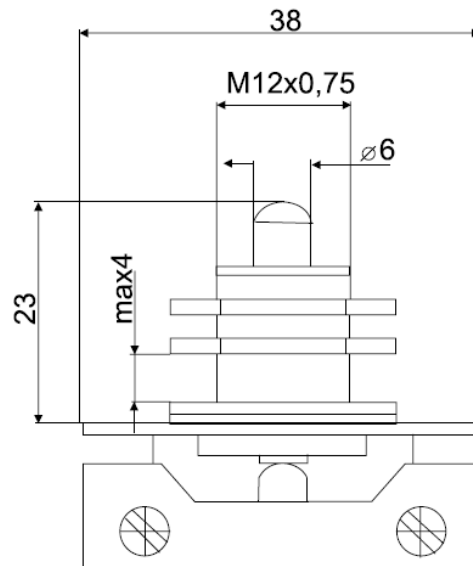

83 136 58A

83 136 58E



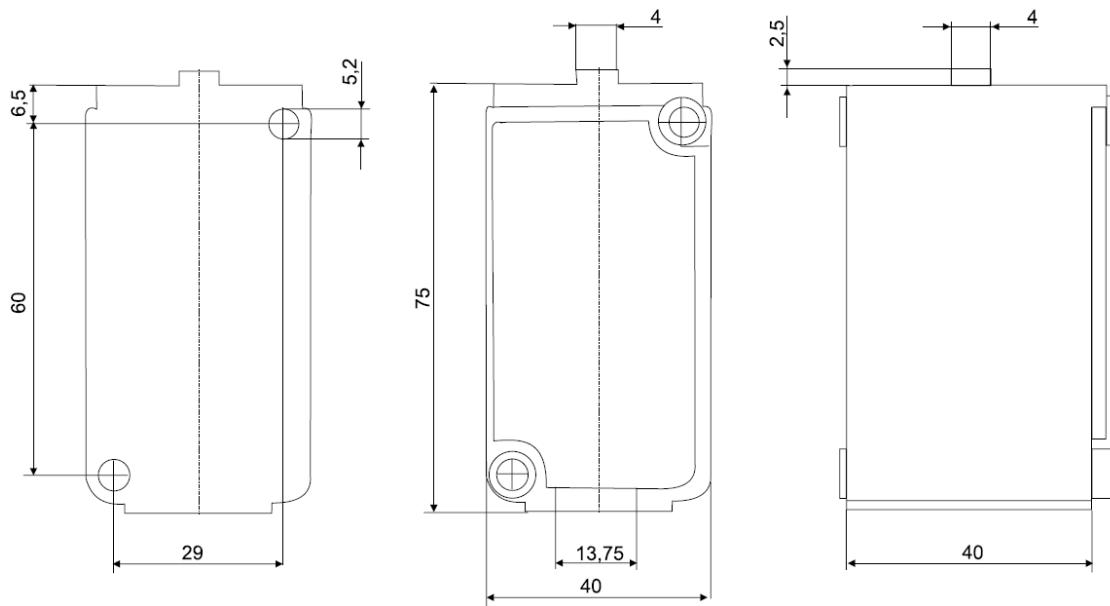
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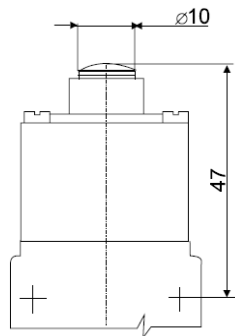
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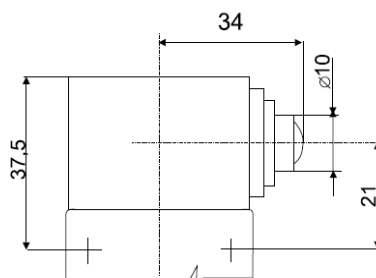
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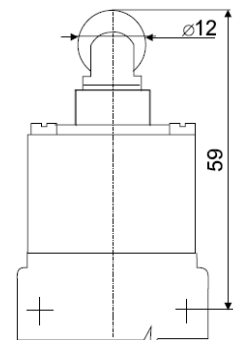
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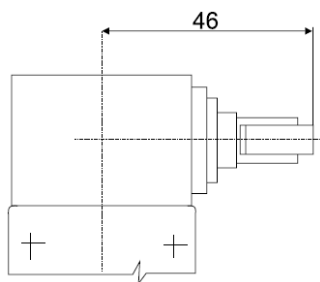
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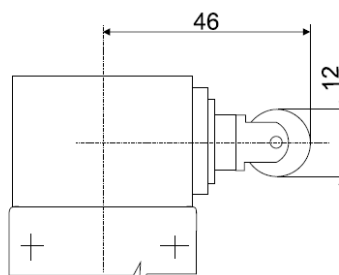
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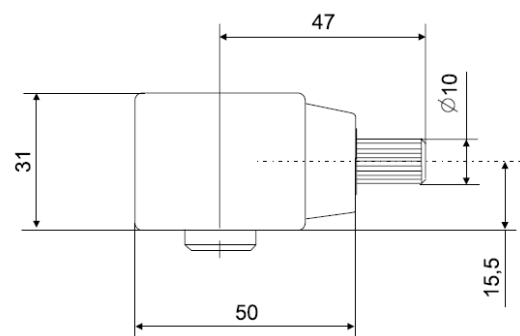
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81 050 32



81050 42

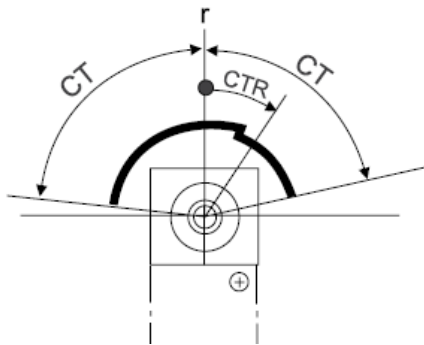
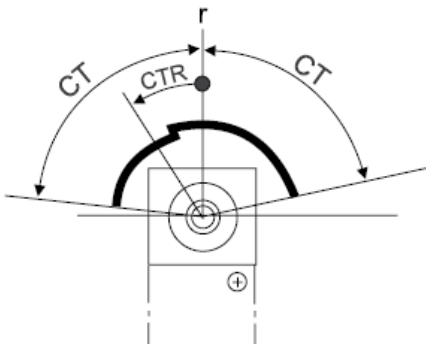


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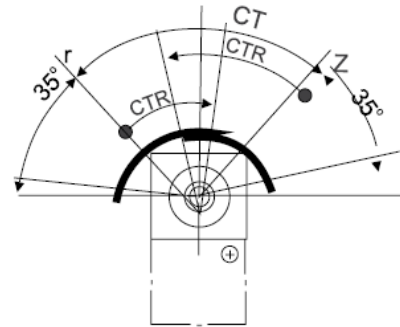
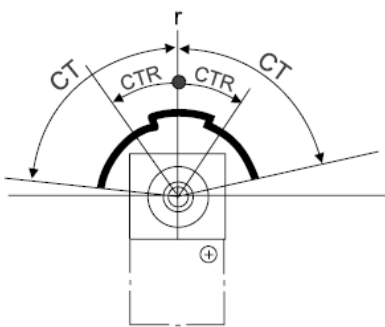
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81 050 82



CT - total travel
CTR - operational travel
r - NC contacts
z - NO contacts

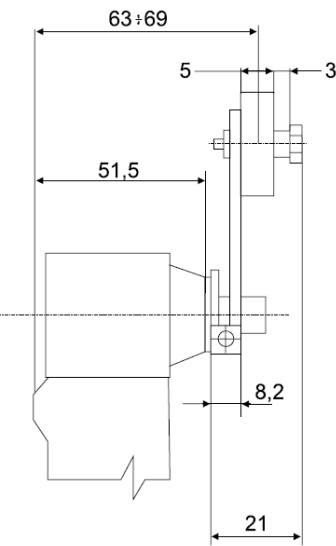
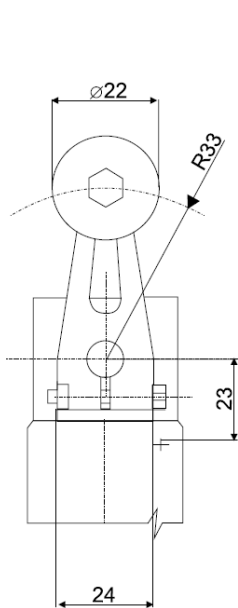
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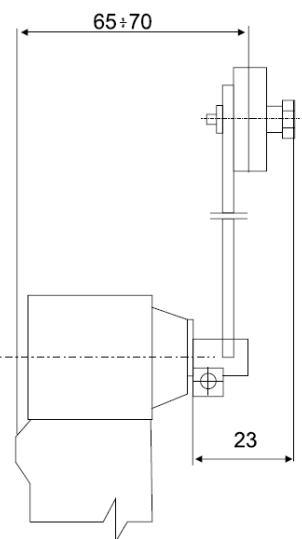
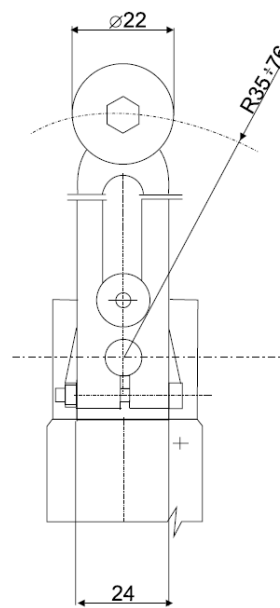
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81 050 52

81050 62



79 210 371.2



79 210 372.2

