



MZS - MZW SERIES MICRO SWITCHES

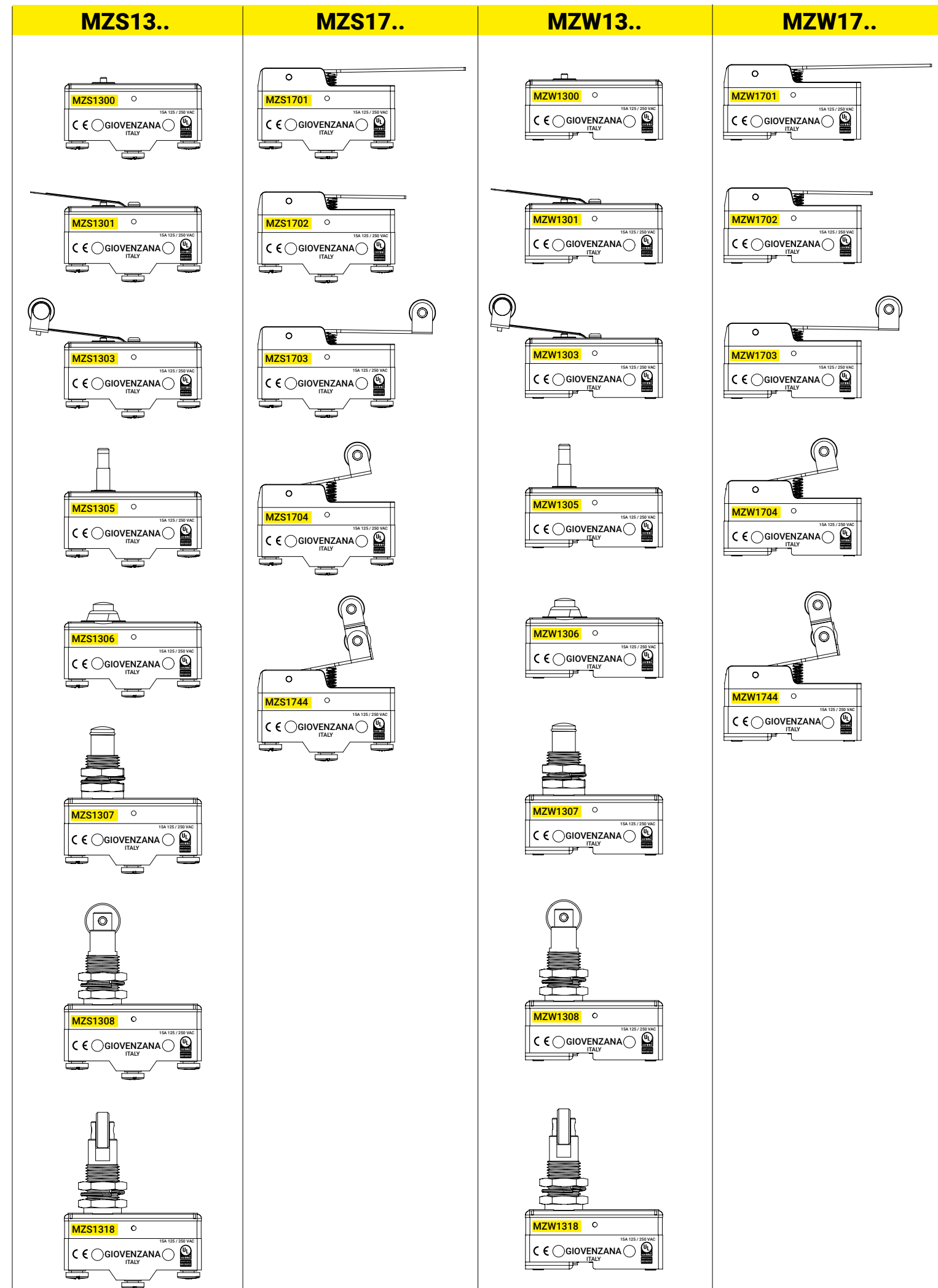
FEATURES:

- + HIGH PRECISION BASIC MICRO SWITCHES IN A VARIETY OF STYLES!
- + WIDE MARGINS OF OPERATING CONDITIONS INCREASE THE OPERATING SPEED RANGE
- + AVAILABLE IN GENERAL PURPOSE



SPECIFICATIONS		
Rating	EN 61058-1 UL 61058-1	20(4) A 250 VAC 15 A 125/250 VAC 0.5 A 125 VDC 0.25 A 250VDC
Electrical characteristics		
Maximum contact resistance	initial	15 mΩ
Minimum insulation resistance	@ 500 VDC	100 MΩ
Dielectric withstanding voltage	for 1 minute	1000 VAC (50 or 60Hz)
Mechanical characteristics		
Operating speed		0.1 mm/s ... 1 m/s
Operating frequency		30 operations per minutes
Vibration		10 ... 55 Hz, 1.5 mm double amplitude
Minimum operating life	Electrical Mechanical	100.000 cycles 1.000.000 cycles
Climatic characteristics		
Operating temperature	UL certified	0 ... +55°C (maximum humidity of 60%)
Degree of protection	with accessory	IP40

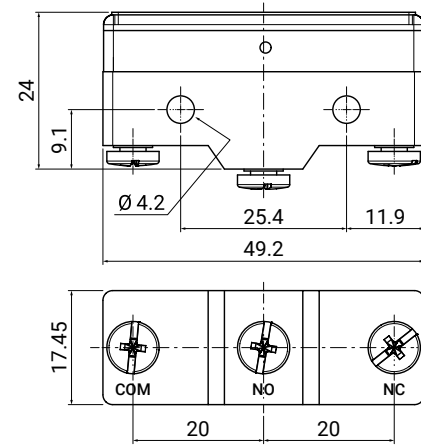
PRODUCT SELECTION		
	1300	Pin plunger
	1301	Hinge lever
	1303	Short hinge roller lever
	1305	Slim spring plunger
	1306	Short spring plunger
	1307	Panel mount plunger
	1308	Panel mount roller plunger
	1318	Panel mount cross roller plunger
	1701	Hinge lever
	1702	Short hinge lever
	1703	Hinge roller lever
	1704	Short hinge roller lever
	1744	Unidirectional short hinge roller lever
	MZA8000	Terminal enclosure



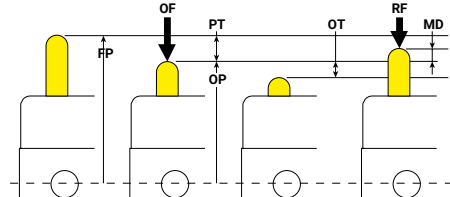
MZS13..

MICRO SWITCHES WITH M4 × 5.5 mm TERMINAL SCREWS WITH INTERNAL GEAR WASHER AND NORMAL ACTUATOR CONFIGURATION.

MZ	S	13	..
Series	Terminal type	Actuator configuration	Actuator
	S - Screw terminals	13 - Standard	00 - Pin plunger 01 - Hinge lever 03 - Short hinge roller lever 05 - Slim spring plunger 06 - Short spring plunger 07 - Panel mount plunger 08 - Panel mount roller plunger 18 - Panel mount cross roller plunger



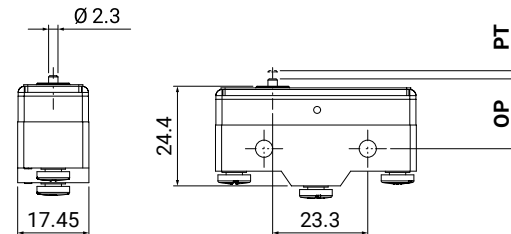
OF [N]	Operating Force
RF [N]	Release force
PT [mm]	Pretravel
OT [mm]	Overtravel
MD [mm]	Differential movement
FP [mm]	Initial position
OP [mm]	Operating position



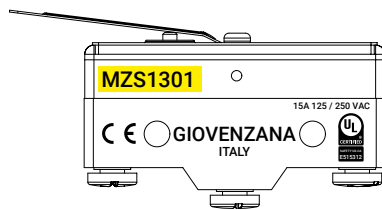
MZS1300 - PIN PLUNGER



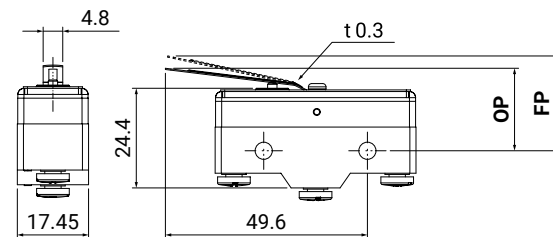
OF	max	250 .. 350 g
RF	min	114 g
PT	max	0.4 mm
OT	min	0.13 mm
MD	max	0.10 mm
FP	max	-
OP		15.9 ± 0.4 mm



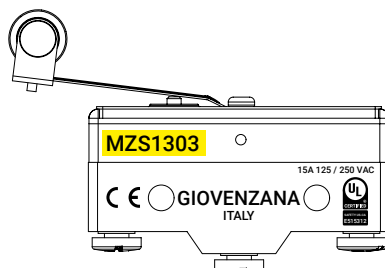
MZS1301 - HINGE LEVER



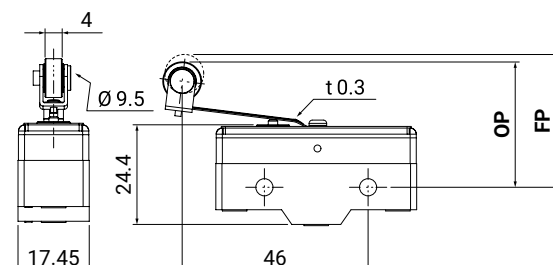
OF	max	141 g
RF	min	14 g
PT	max	4 mm
OT	min	1.6 mm
MD	max	1.3 mm
FP	max	20.6 mm
OP		17.4 ± 0.8 mm



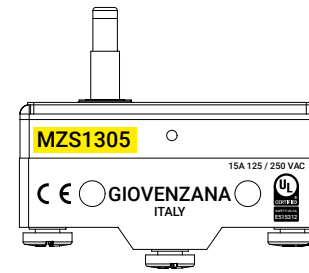
MZS1303 - SHORT HINGE ROLLER LEVER



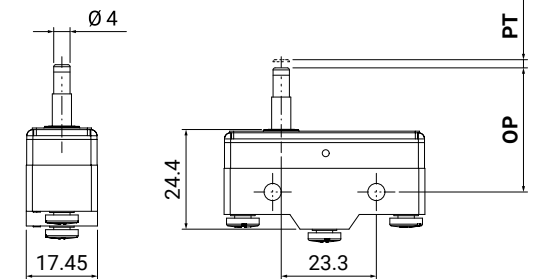
OF	max	141 g
RF	min	14 g
PT	max	4 mm
OT	min	1.6 mm
MD	max	1.3 mm
FP	max	31.8 mm
OP		28.6 ± 0.8 mm



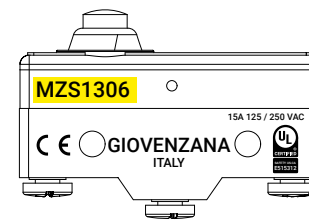
MZS1305 - SLIM SPRING PLUNGER



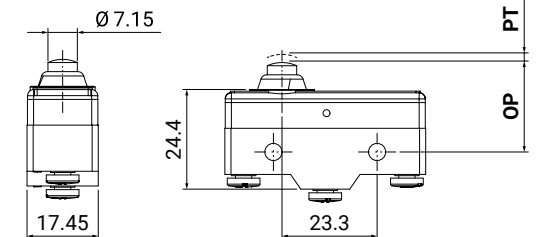
OF	max	250 .. 350 g
RF	min	114 g
PT	max	0.4 mm
OT	min	1.6 mm
MD	max	0.10 mm
FP	max	-
OP		28.2 ± 0.5 mm



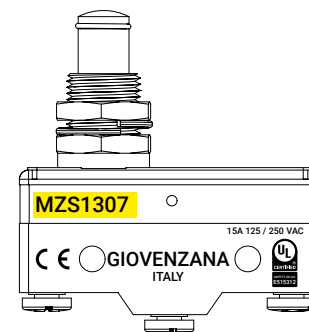
MZS1306 - SHORT SPRING PLUNGER



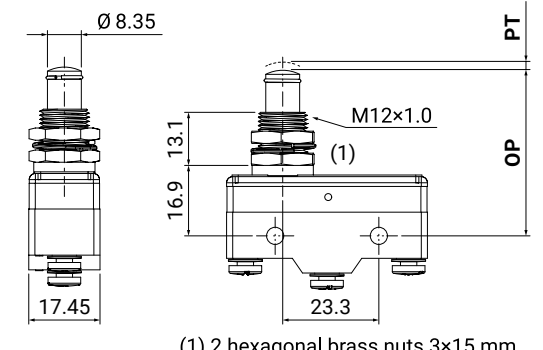
OF	max	250 .. 350 g
RF	min	114 g
PT	max	0.4 mm
OT	min	1.6 mm
MD	max	0.10 mm
FP	max	-
OP		21.5 ± 0.5 mm



MZS1307 - PANEL MOUNT PLUNGER

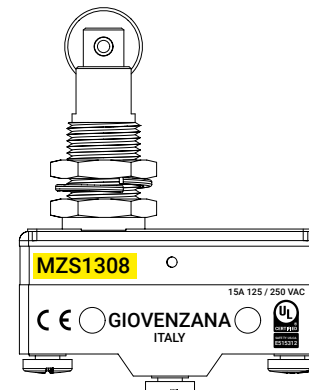


OF	max	250 .. 350 g
RF	min	114 g
PT	max	0.4 mm
OT	min	5.5 mm
MD	max	0.10 mm
FP	max	-
OP		21.8 ± 0.8 mm

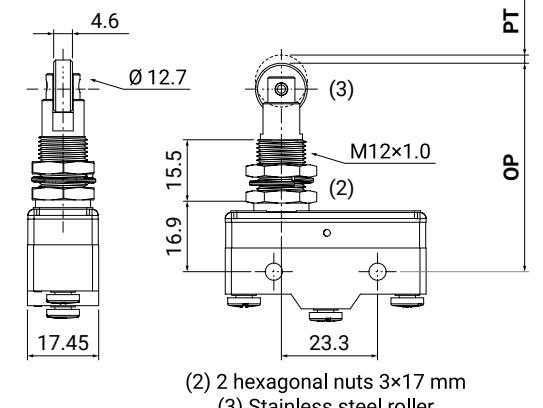


(1) 2 hexagonal brass nuts 3×15 mm

MZS1308 - PANEL MOUNT ROLLER PLUNGER

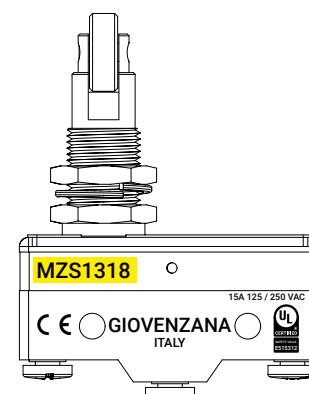


OF	max	250 .. 350 g
RF	min	114 g
PT	max	0.4 mm
OT	min	3.58 mm
MD	max	0.10 mm
FP	max	-
OP		33.4 ± 1.2 mm

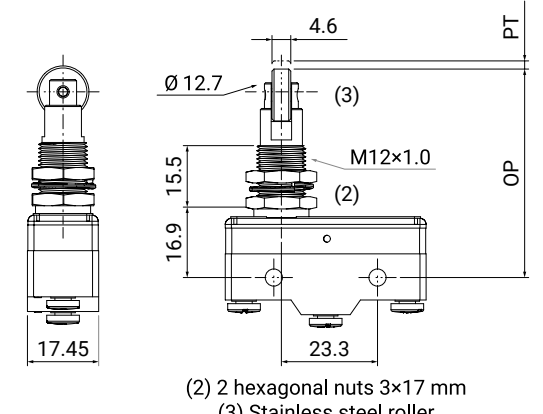


(2) 2 hexagonal nuts 3×17 mm
(3) Stainless steel roller

MZS1318 - PANEL MOUNT CROSS ROLLER PLUNGER



OF	max	250 .. 350 g
RF	min	114 g
PT	max	0.4 mm
OT	min	3.58 mm
MD	max	0.10 mm
FP	max	-
OP		33.4 ± 1.2 mm

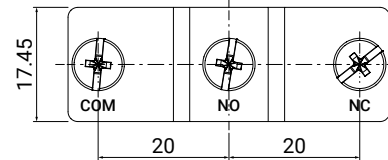
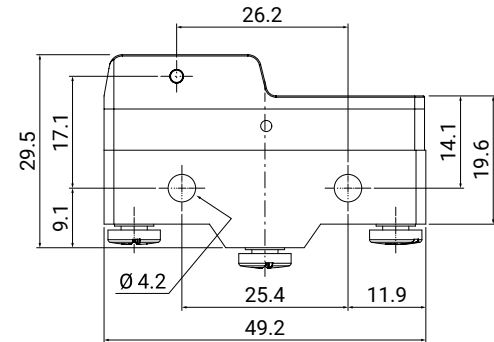


(2) 2 hexagonal nuts 3×17 mm
(3) Stainless steel roller

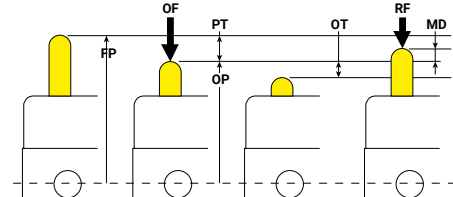
MZS17..

MICRO SWITCHES WITH M4 × 5.5 mm TERMINAL SCREWS WITH INTERNAL GEAR WASHER AND NORMAL ACTUATOR CONFIGURATION.

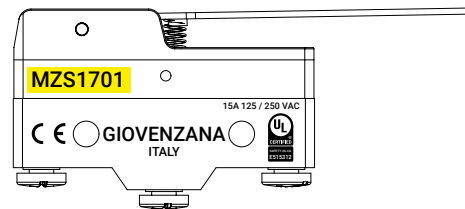
MZ	S	17	..
Series	Terminal type	Actuator configuration	Actuator
	S - Screw terminals	17 - Reverse	01 - Hinge lever 02 - Short hinge roller lever 03 - Hinge roller lever 04 - Short hinge roller lever 44 - Unidirectional short hinge roller lever



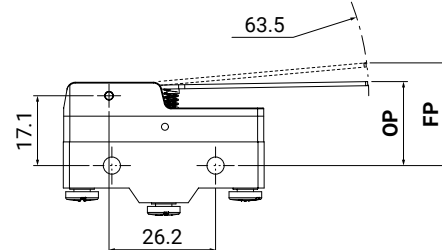
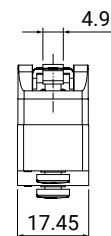
OF	[N]	Operating Force
RF	[N]	Release force
PT	[mm]	Pretravel
OT	[mm]	Overtravel
MD	[mm]	Differential movement
FP	[mm]	Initial position
OP	[mm]	Operating position



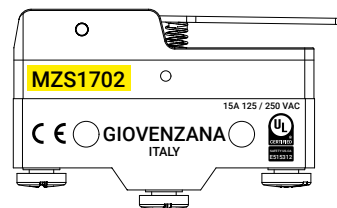
MZS1701 - HINGE LEVER



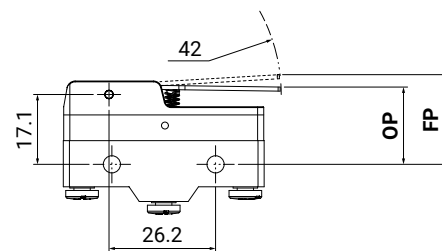
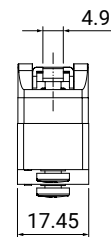
OF	max	70 g
RF	min	14 g
PT	max	10 mm
OT	min	5.6 mm
MD	max	1.27 mm
FP	max	28.2 mm
OP		19 ± 0.8 mm



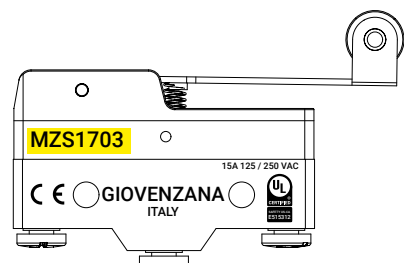
MZS1702 - SHORT HINGE ROLLER LEVER



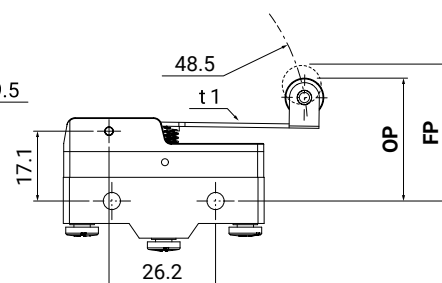
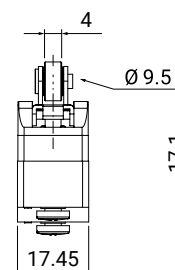
OF	max	90 g
RF	min	18 g
PT	max	7 mm
OT	min	3.5 mm
MD	max	1 mm
FP	max	26.2 mm
OP		19.8 ± 0.8 mm



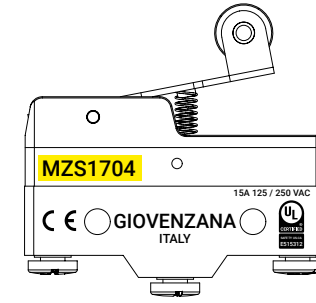
MZS1703 - HINGE ROLLER LEVER



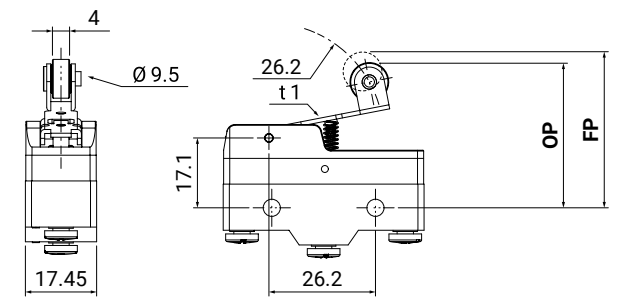
OF	max	100 g
RF	min	22 g
PT	max	7.1 mm
OT	min	4 mm
MD	max	1.02 mm
FP	max	36.5 mm
OP		30.2 ± 0.8 mm



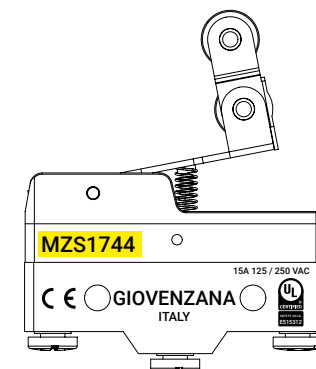
MZS1704 - SHORT HINGE ROLLER LEVER



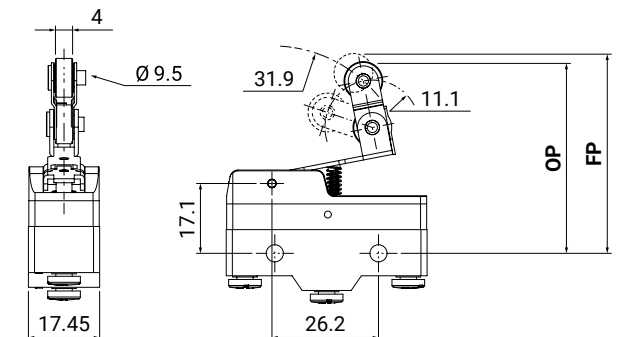
OF	max	160 g
RF	min	42 g
PT	max	2.7 mm
OT	min	2.4 mm
MD	max	0.5 mm
FP	max	32.5 mm
OP		30.2 ± 0.4 mm



MZS1744 - UNIDIRECTIONAL SHORT HINGE ROLLER LEVER



OF	max	170 g
RF	min	42 g
PT	max	2.7 mm
OT	min	2.4 mm
MD	max	0.51 mm
FP	max	43.6 mm
OP		41.3 ± 0.8 mm

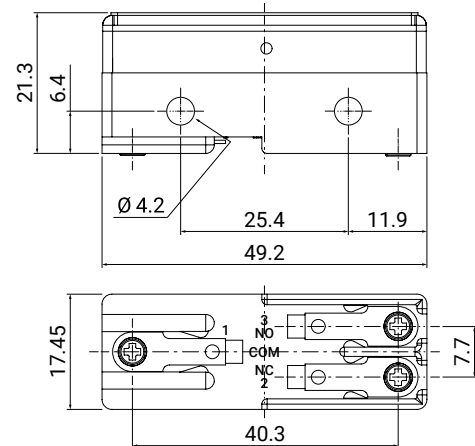
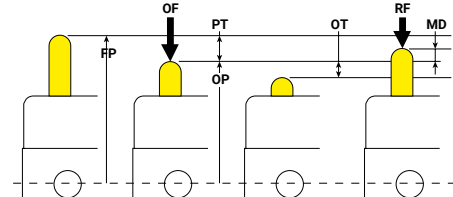


MZW13..

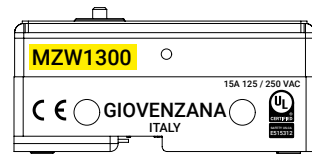
MICRO SWITCHES WITH SOLDER TERMINALS WITH NORMAL ACTUATOR CONFIGURATION.

MZ	W	13	..
Series	Terminal type	Actuator configuration	Actuator
	W - Solder terminals	13 - Standard	00 - Pin plunger 01 - Hinge lever 03 - Short hinge roller lever 05 - Slim spring plunger 06 - Short spring plunger 07 - Panel mount plunger 08 - Panel mount roller plunger 18 - Panel mount cross roller plunger

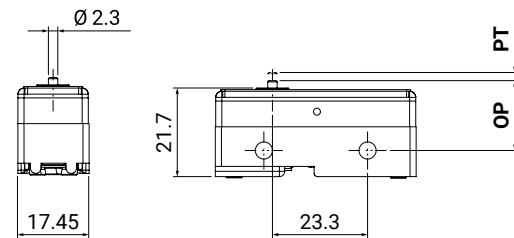
OF [N]	Operating Force
RF [N]	Release force
PT [mm]	Pretravel
OT [mm]	Overtravel
MD [mm]	Differential movement
FP [mm]	Initial position
OP [mm]	Operating position



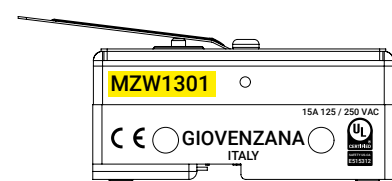
MZW1300 - PIN PLUNGER



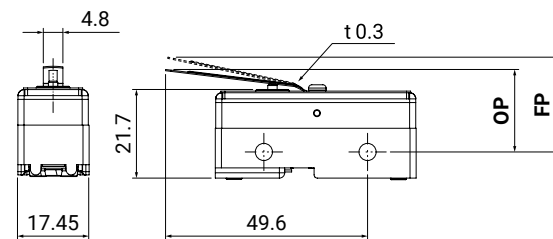
OF	max	250 .. 350 g
RF	min	114 g
PT	max	0.4 mm
OT	min	0.13 mm
MD	max	0.10 mm
FP	max	-
OP		15.9 ± 0.4 mm



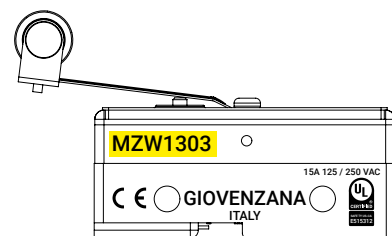
MZW1301 - HINGE LEVER



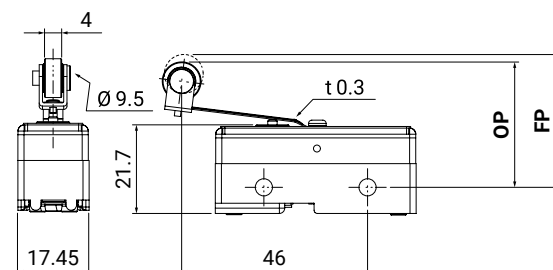
OF	max	141 g
RF	min	14 g
PT	max	4 mm
OT	min	1.6 mm
MD	max	1.3 mm
FP	max	20.6 mm
OP		17.4 ± 0.8 mm



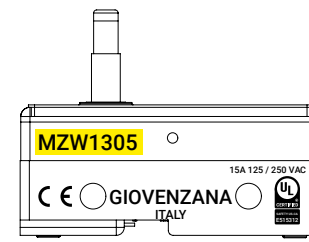
MZW1303 - SHORT HINGE ROLLER LEVER



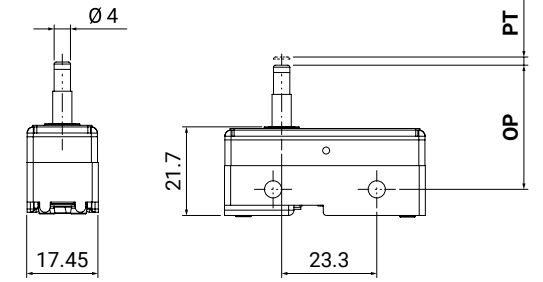
OF	max	141 g
RF	min	14 g
PT	max	4 mm
OT	min	1.6 mm
MD	max	1.3 mm
FP	max	31.8 mm
OP		28.6 ± 0.8 mm



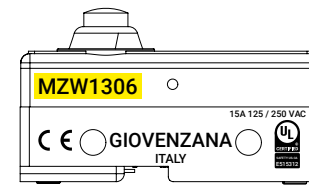
MZW1305 - SLIM SPRING PLUNGER



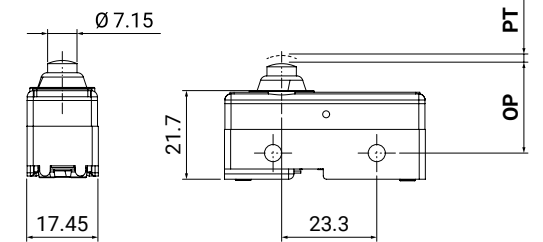
OF	max	250 .. 350 g
RF	min	114 g
PT	max	0.4 mm
OT	min	1.6 mm
MD	max	0.10 mm
FP	max	-
OP		28.2 ± 0.5 mm



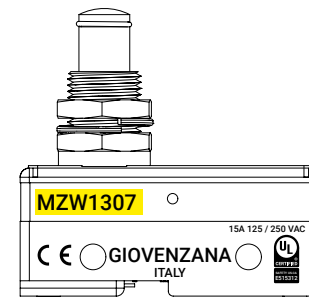
MZW1306 - SHORT SPRING PLUNGER



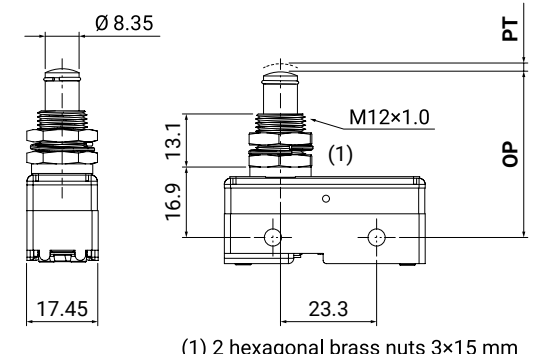
OF	max	250 .. 350 g
RF	min	114 g
PT	max	0.4 mm
OT	min	1.6 mm
MD	max	0.10 mm
FP	max	-
OP		21.5 ± 0.5 mm



MZW1307 - PANEL MOUNT PLUNGER

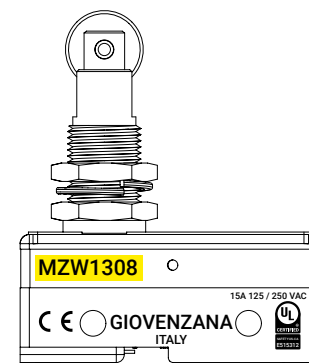


OF	max	250 .. 350 g
RF	min	114 g
PT	max	0.4 mm
OT	min	5.5 mm
MD	max	0.10 mm
FP	max	-
OP		21.8 ± 0.8 mm

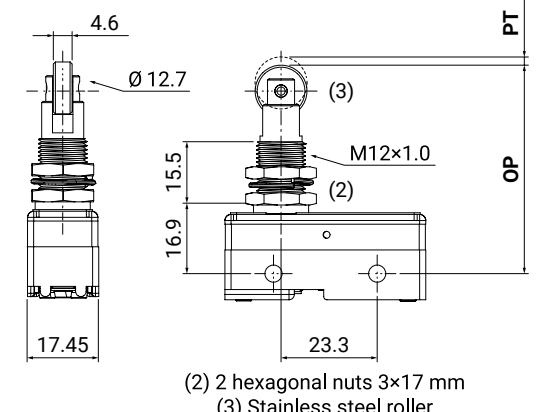


(1) 2 hexagonal brass nuts 3x15 mm

MZW1308 - PANEL MOUNT ROLLER PLUNGER

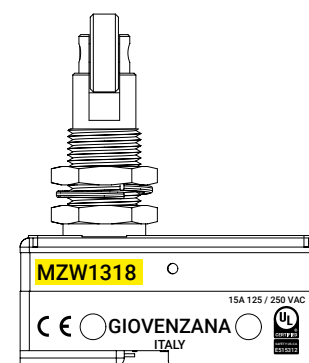


OF	max	250 .. 350 g
RF	min	114 g
PT	max	0.4 mm
OT	min	3.58 mm
MD	max	0.10 mm
FP	max	-
OP		33.4 ± 1.2 mm

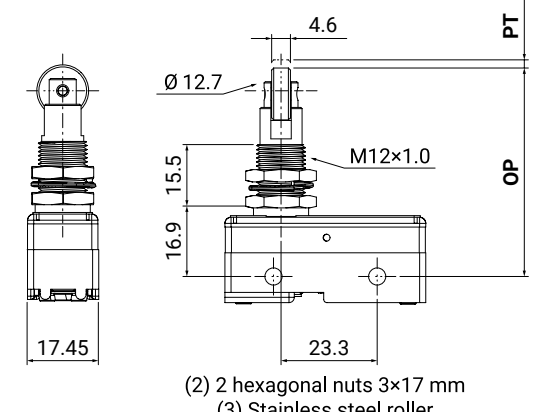


(2) 2 hexagonal nuts 3x17 mm
(3) Stainless steel roller

MZW1318 - PANEL MOUNT CROSS ROLLER PLUNGER



OF	max	250 .. 350 g
RF	min	114 g
PT	max	0.4 mm
OT	min	3.58 mm
MD	max	0.10 mm
FP	max	-
OP		33.4 ± 1.2 mm

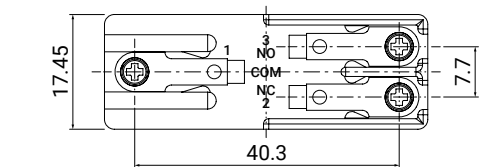
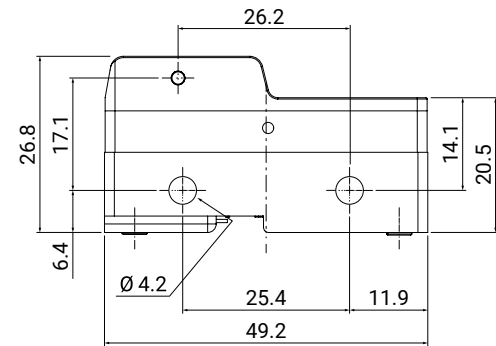


(2) 2 hexagonal nuts 3x17 mm
(3) Stainless steel roller

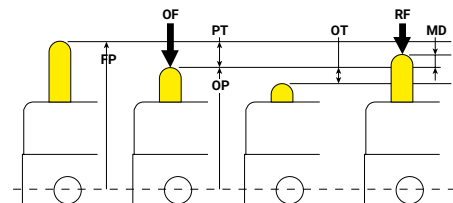
MZW17..

MICRO SWITCHES WITH SOLDER TERMINALS WITH NORMAL ACTUATOR CONFIGURATION.

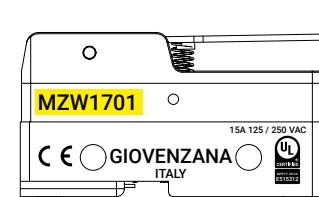
MZ	W	17	..
Series	Terminal type	Actuator configuration	Actuator
	W - Solder terminals	17 - Reverse	01 - Hinge lever 02 - Short hinge roller lever 03 - Hinge roller lever 04 - Short hinge roller lever 44 - Unidirectional short hinge roller lever



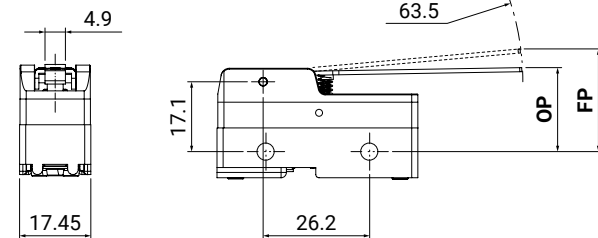
OF [N]	Operating Force
RF [N]	Release force
PT [mm]	Pretravel
OT [mm]	Overtravel
MD [mm]	Differential movement
FP [mm]	Initial position
OP [mm]	Operating position



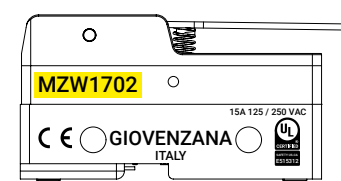
MZW1701 - HINGE LEVER



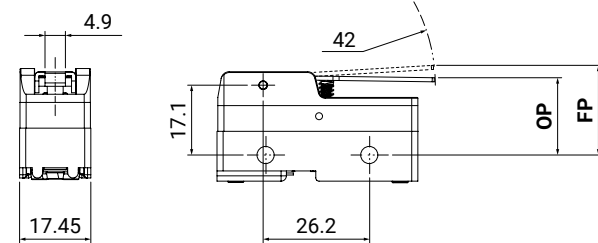
OF	max	70 g
RF	min	14 g
PT	max	10 mm
OT	min	5.6 mm
MD	max	1.27 mm
FP	max	28.2 mm
OP		19 ± 0.8 mm



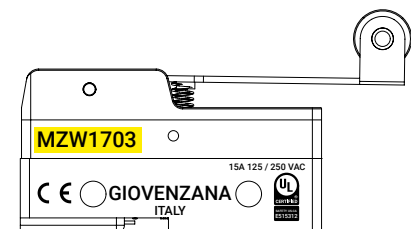
MZW1702 - SHORT HINGE ROLLER LEVER



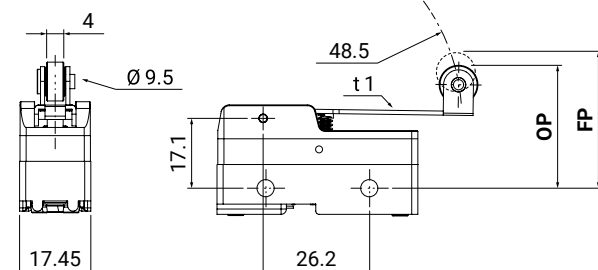
OF	max	90 g
RF	min	18 g
PT	max	7 mm
OT	min	3.5 mm
MD	max	1 mm
FP	max	26.2 mm
OP		19.8 ± 0.8 mm



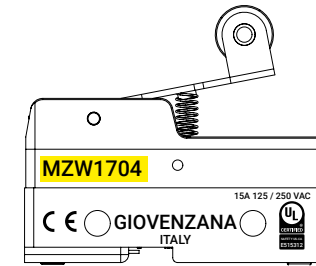
MZW1703 - HINGE ROLLER LEVER



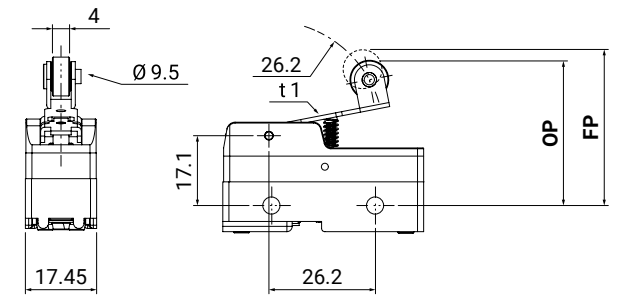
OF	max	100 g
RF	min	22 g
PT	max	7.1 mm
OT	min	4 mm
MD	max	1.02 mm
FP	max	36.5 mm
OP		30.2 ± 0.8 mm



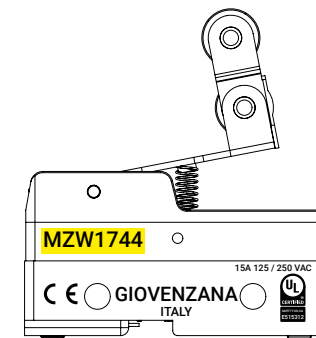
MZW1704 - SHORT HINGE ROLLER LEVER



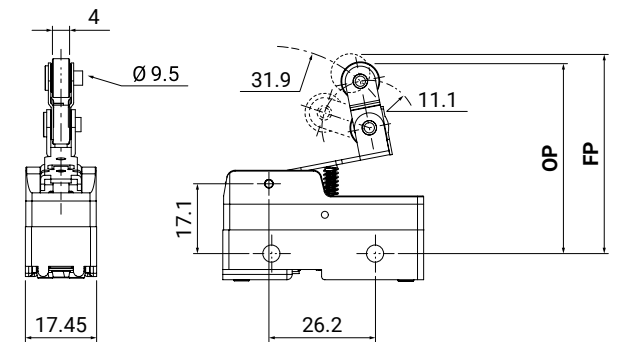
OF	max	160 g
RF	min	42 g
PT	max	2.7 mm
OT	min	2.4 mm
MD	max	0.5 mm
FP	max	32.5 mm
OP		30.2 ± 0.4 mm



MZW1744 - UNIDIRECTIONAL SHORT HINGE ROLLER LEVER



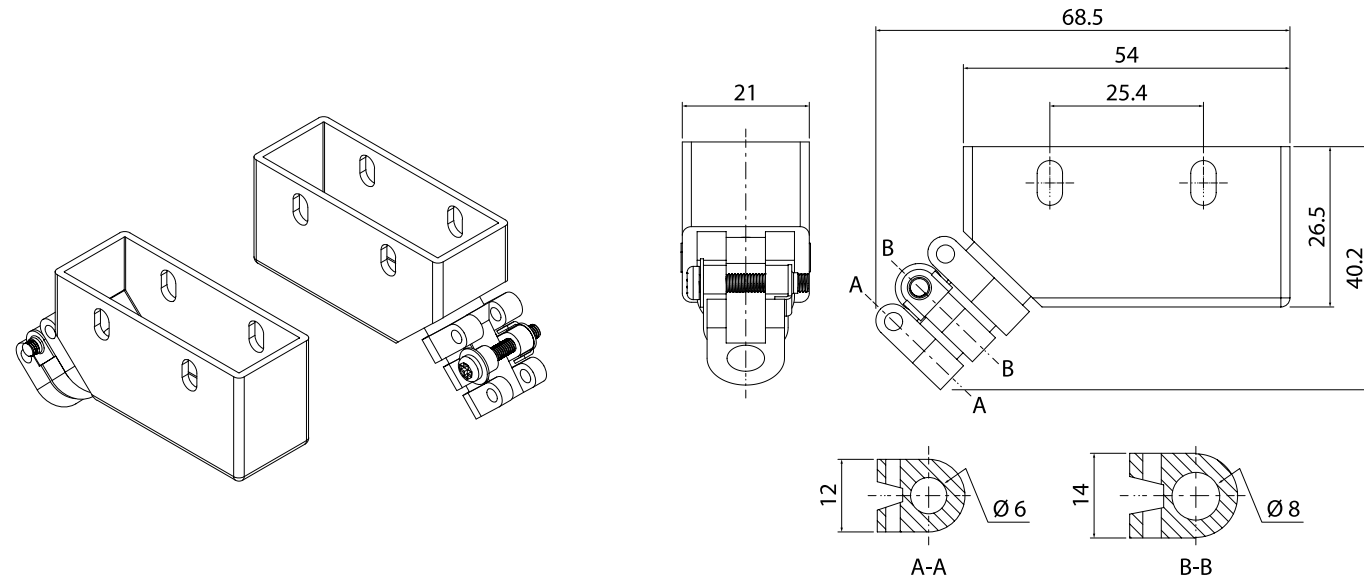
OF	max	170 g
RF	min	42 g
PT	max	2.7 mm
OT	min	2.4 mm
MD	max	0.51 mm
FP	max	43.6 mm
OP		41.3 ± 0.8 mm





ACCESSORY

MZA8000 - TERMINAL ENCLOSURE
MATERIAL: NBR



CORRECT USE

MOUNTING:

- USE M4 SCREWS WITH PLANE WASHER AND SPRING WASHERS TO MOUNT THE SWITCH.
TIGHTEN EACH MOUNTING SCREW SECURELY TO A TORQUE OF 1.18 TO 1.47 N×m / 10.6 - 13.3 lb×in
- WHEN MOUNTING THE SWITCH TO A PANEL, USE A TIGHTENING TORQUE OF 2.94 TO 4.9 N×m / 26.6 - 44.3 lb×in

MOUNTING HOLES

Two, 4.2 dia. mounting holes or M4

