


# AZ-7 series

Limit switches

## OPERATION INSTRUCTION

Standard:IEC 60947-5-1

**CNC** Deliver  
Power For Better Life

 Before installing and using this product, please read this manual carefully and pay more attention to safety.



## Safety Alert

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- ① The product is strictly prohibited from being installed in environments containing flammable and explosive gases, damp condensation, and wet hands are strictly prohibited from operating the product;
- ② During product operation, it is strictly prohibited to touch the conductive parts of the product;
- ③ The product must be reliably grounded;
- ④ When installing, maintaining, and maintaining products, it is necessary to ensure that the circuit is powered off;
- ⑤ Children are strictly prohibited from playing with products or packaging;
- ⑥ Do not install in areas where gas media can corrode metals and damage insulation;
- ⑦ When installing and using the product, standard wires must be used and loads that meet the requirements must be connected;
- ⑧ To avoid the risk of accidents, the installation and fixation of the product must strictly follow the requirements of the manual;
- ⑨ After dismantling the packaging, the product should be checked for damage and the integrity of the items should be checked.

## 1 Main uses and scope of application

The AZ-7 series limit switch is suitable for controlling the travel of motion mechanisms, changing the direction or speed of motion, automatic control of machine tools, limiting actions of motion mechanisms, and controlling travel or programs in electrical circuits with AC 50Hz, voltage 380V, and DC 220V.

## 2 Series model specifications and their meanings



## 3 Normal usage, installation, transportation, and storage conditions

### 3.1 Normal usage conditions

The upper limit value of the surrounding air temperature shall not exceed  $+40^{\circ}\text{C}$ , and the average temperature within 24 hours shall not exceed  $+35^{\circ}\text{C}$ , and the lower limit value shall not be lower than  $-5^{\circ}\text{C}$ . When the maximum temperature is  $+40^{\circ}\text{C}$ , the relative humidity of the air shall not exceed 50%. Higher relative humidity is allowed at lower temperatures, such as reaching 90% at  $20^{\circ}\text{C}$ . Special measures should be taken for occasional condensation caused by temperature changes.

### 3.2 Installation conditions

Installed in a place without significant shaking, impact vibration, and invasion of rain and snow (including conductive dust); In a medium without explosion risk, there is no place (including conductive dust) that is capable of corroding metals and damaging insulation, and the altitude of the installation site does not exceed 2000m.

### 3.3 Transportation and storage condition

The following temperature range is suitable for transportation and storage: between  $-25^{\circ}\text{C}$  and  $+55^{\circ}\text{C}$ , and can reach  $+70^{\circ}\text{C}$  in a short period of time (24 hours).

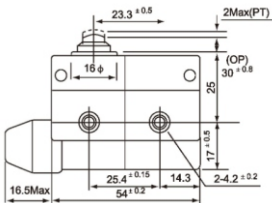
## 4 Main technical parameters and performance

4.1 The technical parameters of the main circuit are shown in Table 1

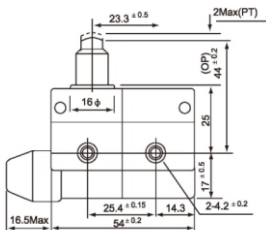
Table 1 Technical parameters of the main circuit of the product

Number	Technical parameters and performance names	AZ-7 series
1	Rated operating characteristics	AC-15,B300( $U_e=240\text{V}$ , $I_e=1.5\text{A}$ ) DC-13,R300( $U_e=250\text{V}$ , $I_e=0.1\text{A}$ )
2	Agreed free air heating current $I_{th}(\text{A})$	5
3	Insulation resistance	$\geq 100\text{M}\Omega$ (megohmmeter of 500VDC)
4	Rated insulation voltage $U_i(\text{V})$	500
5	Operating frequency	Mechanical: maximum 240 times/min electrical: maximum 20 times/min
6	Electrical life	500,000 times
7	Contact resistance	$\leq 15\text{m}\Omega$ (initial value)
8	Pollution level	Level 3
6	Ambient temperature	Operation: $-10^{\circ}\text{C} \sim +80^{\circ}\text{C}$ ; Storage: $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$
7	Degree of protection	IP54
8	Mechanical life	10,000,000 times
9	Operation speed	0.01mm to 1m/sec (lock plug type)

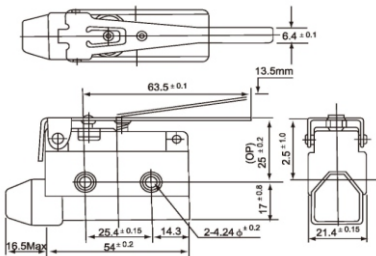
## 5 Appearance and installation dimensions



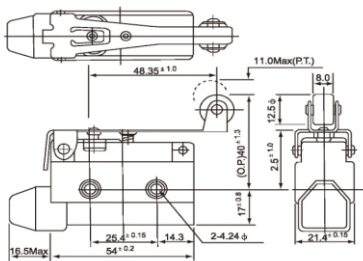
AZ-7100



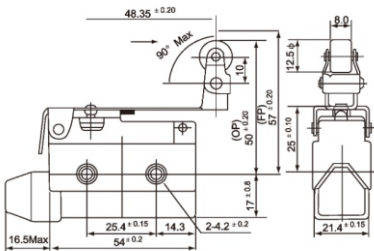
AZ-7110



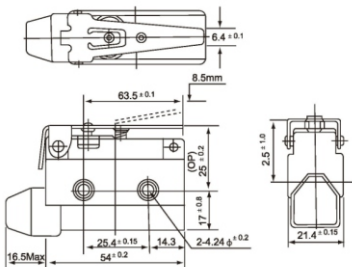
AZ-7120



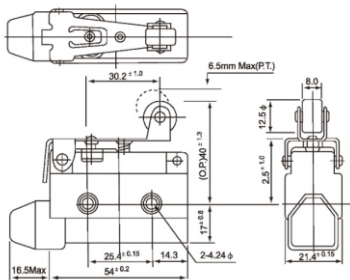
AZ-7121



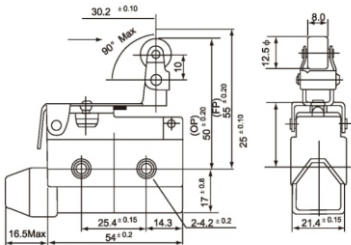
AZ-7124



AZ-7140

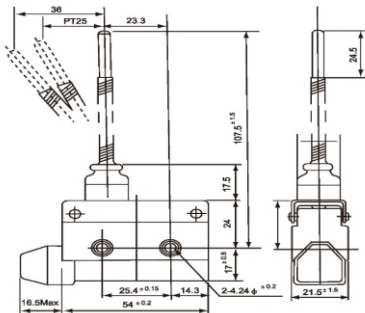


AZ-7141

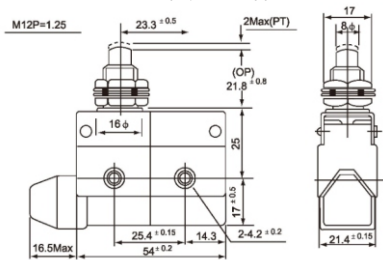


AZ-7144

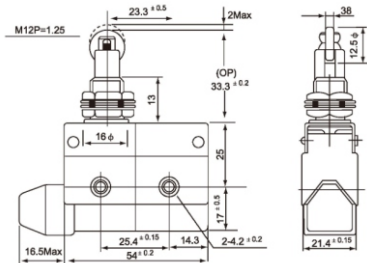




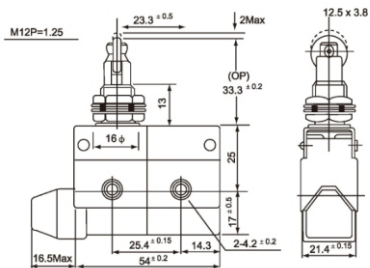
AZ-7161、AZ-7166



AZ-7310



AZ-7311



AZ-7312

Models	AZ-7100	AZ-7110	AZ-7310	AZ-7311	AZ-7312	AZ-7120
OF(Max.)	600g	600g	600g	600g	600g	150g
RF(Min.)	100g	100g	100g	100g	100g	40g
PT(Max.)	2.0mm	2.0mm	2.0mm	2.0mm	2.0mm	13.5mm
OT(Min.)	0.8mm	5.0mm	6.0mm	6.0mm	6.0mm	4.0mm
MT(Max.)	0.8mm	0.8mm	0.8mm	0.8mm	0.8mm	3.2mm
OP(mm)	30.5±0.8	44±1.2	21.8±1.2	33.3±1.2	33.3±1.2	25±1
FP	/	/	/	/	/	35mm
Weight(kg)	0.070	0.085	0.090	0.090	0.090	0.054

### Product Information(1)

Models	AZ-7140	AZ-7121	AZ-7141	AZ-7124	AZ-7144	AZ-7161 AZ-7166
OF(Max.)	220g	180g	240g	200g	280g	120g
RF(Min.)	60g	50g	80g	60g	100g	/
PT(Max.)	8.5mm	11.0mm	6.5mm	11.0mm	6.5mm	250mm
OT(Min.)	2.5mm	3.0mm	2.0mm	3.0mm	2.0mm	11.0mm
MT(Max.)	2.0mm	2.4mm	1.5mm	2.4mm	1.5mm	/
OP(mm)	25±01	40±1	40±1	50±1.2	50±1.2	/
FP	32mm	/	46mm	/	56mm	/
Weight(kg)	0.054	0.057	0.056	0.062	0.061	0.083

### Product Information(2)



# CERTIFICATE

Product Model: AZ-7

Standard: IEC 60947-5-1

Inspector : CNC 003

Production date: Printed on the product  
or package.

This product is qualified according  
to the delivery inspection



## CNC ELECTRIC

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