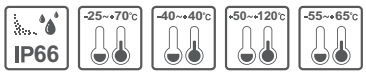
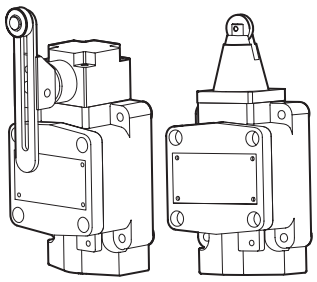
Explosion proof limit switch

SLP5130 Series





Thank you for purchasing Qlight's products. Please read this user manual carefully prior to installation and operation to ensure safe and correct use.

⚠ Safety Precautions for Explosion Proof Products

Please follow the instruction below to ensure safe and correct use of explosion proof products.

1. Explosion proof products should be managed according to explosion proof regulations. Do not disassemble, assemble, alter or repair the product arbitrarily.
2. The temperature rating of the product is the temperature the product will experience at the applied rated voltage and ambient temperature indicated.
3. Use cable glands that satisfy the product's explosion proof grade and temperature grade.
4. Unused cable entries must be filled with material that meets the explosion proof grade and temperature rating.
5. Before installing the product, please make sure all cautions indicated on the labels, packaging, and operation manual of the product are fully understood.
6. Installation, maintenance and repair of the product must be performed by experts in the explosion proof field, or persons who have received relevant training.
7. For safety, the product should be installed and operated in environments that avoid high temperature and high pressure.
8. Please follow general safety precautions and avoid installing the product in locations that may generate excessive heat.
9. When installing the product in places where chemicals are located, please make sure that the environment does not have two or more incompatible chemicals mixed. For safety, please read the instruction manual carefully and be mindful of the chemical compositions where the product is used.
10. This product requires grounding.

⚠ Precaution for Safety

Failure to follow the instructions below may cause a loss of life or serious physical injury.

1. During wiring or maintenance, please completely turn off the power of the product. (Failure to follow this may lead to an electric shock.)
2. Do not install the product in locations that subjects it to excessive dust or water other than the conditions designated by the IP protection ratings indicated for each product. (Failure to follow these instructions may cause a fire to the product, electric shock, physical injury, malfunction or damage to the product.)
3. Do not alter or repair this product. If maintenance or repair service is required, please contact your local Qlight contact point. (Failure to follow these instructions may lead to fire, electric shock, or product damage.)
4. Please apply the correct voltage to the product. (Failure to follow these instructions may lead to fire, electric shock, or product damage.)
5. When the product is applied to a condition that may impact lives or property, please make sure to have a double safety device. (Failure to follow this may cause damage to property, fire, electric shock and loss of life.)

⚠ Precautions for Correct Use

Failure to follow the proper instructions may cause damage to property, the product, or malfunction of the product that would void the warranty.

1. Please remove any objects that can interrupt ventilation around the product.
2. Please turn off the power of the product immediately if it fails to operate properly.
3. Carefully wire the product according to each product's specification.
4. Please be careful in preventing chemicals such as thinner, benzene, etc. in contact with the surface of the product.
5. Do not apply excessive force/impact to the product.
6. Failure to follow any of the instructions above may cause malfunction or damage to the product, fire, and electric shock.

Please scan the QR code for more detailed product information.

www.qlight.com

Product Specifications

■Explosion Proof Specifications

Model number	SLP5130-**-**
Ex mark	IECEX - Ex db IIC T6 Gb, Ex tb IIIC T85°C Db ATEX - Ⓔx II2G/ II2D, Ex db IIC T6 Gb Ex tb IIIC T85°C Db, IP66 KCs - Ex d IIC T6 Gb, Ex tD A21 T85°C, IP66 (Standard type,Cold-proof type) Ex d IIC T4 Gb, Ex tD A21 T135°C, IP66(Heat-resisting type)
Certificate	IECEx, ATEX(SLP5130-AL, RL, R, RP, P, SW only) KCs(SLP5130-AL, RL, R, RP, P, SW, CR, H only)
Caution operating temperature	-25°C ≤ Tamb ≤ +70°C -40°C ≤ Tamb ≤ +40°C (Cold-proof type) +50°C ≤ Tamb ≤ +120°C (Heat-resisting type) -55°C ≤ Tamb ≤ +65°C (IECEx, ATEX)
Explosion proof Zone	Zone1, Zone2, Zone21, Zone22
Protection rating	IP66

Zone definitions(Gas)	Zone 1	High risk gas/vapour(Gas)
	Zone 2	Medium risk gas/vapour(Gas)
Group definitions(Gas)	GROUP II A	Acetone, Petrol, Methanol, Propane, Toluene
	GROUP II B	Ethylene, City gas
	GROUP II C	Hydrogen, Acetylene, Carbon sulphide
Maximum surface temperature of electrical Equipment	T1	450°C
	T2	300°C
	T3	200°C
	T4	135°C
Zone definitions(Dust)	T5	100°C
	T6	85°C
Group definitions(Dust)	Zone 21	High risk powder/dust(Dust)
	Zone 22	Medium risk powder/dust(Dust)
Group definitions(Dust)	GROUP II A	Ignitible fibers/flyings(more than 0.5mm)
	GROUP II B	Non-conductive dusts
	GROUP II C	Conductive dusts

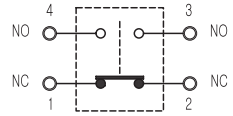
■Rated Specifications

Rated voltage(V)		Non-inductive load(A)				Inductive load(A)			
		Load resistance		Lamp resistance		Inductive load		Motor resistance	
		Normally closed	Normally opened	Normally closed	Normally opened	Normally closed	Normally opened	Normally closed	Normally opened
AC	125	10		3	1.5	10		5	2.5
	250	6		2	1	10		3	1.5
	480	2		1.5	0.8	3		1.5	0.8
DC	8	10		6	3	6		6	
	14	10		6	3	6		6	
	30	6		4	3	4		4	
	125	0.8		0.2	0.2	0.8		0.2	
	250	0.4		0.1	0.1	0.4		0.1	

Inrush current	Normally closed	Max. 20A
	Normally opened	Max. 10A

※ Annotation
1. The figures in the diagram present normal current.
2. Inductive load has a power factor of 0.4 or more (AC) and a time constant of 7 ms or less (DC)
3. The lamp load should have 10 times the inrush current.
4. Motor load current has 6 times the inrush current.

■Circuit Configuration

Contact	2CKT-DB (2 circuits double)
Circuit configuration	
Appearance	

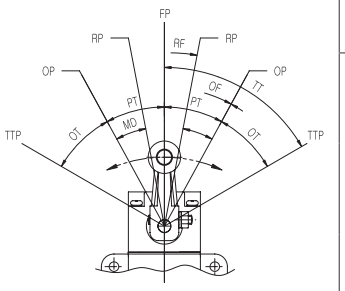
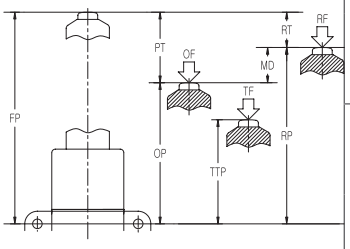
■Operation Specifications

Actuator type	Model number	Operation features					Weight
		OF Max.g	RF Min.g	PT Max.	TT Min.	MD Max.	
Adjustable Roller Lever	SLP5130-AL(-CR / H)	1,300	210	25˚±5˚	70˚	10˚	Abt. 0.80kg
Roller Lever	SLP5130-RL(-CR / H)						Abt. 0.77kg
Rod Lever	SLP5130-R(-CR / H)	150	25	25˚±5˚	40˚	10˚	Abt. 0.80kg
Roller Plunger	SLP5130-RP(-CR / H)	2,850	810	2.0mm	-	1.0mm	Abt. 0.65kg
Plunger	SLP5130-P(-CR / H)						Abt. 0.64kg
Spring Wire	SLP5130-SW(-CR / H)	150	-	20±10mm	360˚ undirected operation		Abt. 0.65kg

• CR: Cold-proof type, H: Heat-resisting type

Product Specifications

■Operation Features

Definition of operation features	Classification	Terms	Abbreviations	Unit	Definition
	Power	Operating force	OF	g, kg g -mm	The force applied to the actuator required to move from the free position (FP) to the operating position (OP).
		Release force	RF		The force applied to the actuator required to move from the operating limit position (TTP) to the return position (RP).
		Total travel force	TF		The force applied to the actuator required to move from the operating position (OP) to the operating limit position (TTP).
	Movement	Pre travel	PT	mm,°	Movement distance or movement angle from the free position (FP) to the operating position (OP) of the actuator
		Over travel	OT		Movement distance or movement angle from the operation position (OP) of the actuator to the operation limit position (TTP)
		Movement differential	MD		Movement distance or movement angle from the operation position (OP) of the actuator to the return position (RP)
		Total travel	TT		Movement distance or movement angle from free position (FP) of actuator to operation limit position (TTP)
	Position	Free position	FP	mm,°	Actuator position of the moving part when no external force is applied
		Operating position	OP		The position of the actuator when an external force is added to the actuator and the movable contact is accurately reversed from the free position (FP) state.
		Release position	RP		Actuator position when the movable contact accurately reverses from the operating position (OP) to the free position (FP) by reducing the external force of the actuator
		Total travel position	TTP		Actuator position when the movable contact accurately reverses from the operating position (OP) to the free position (FP) by reducing the external force of the actuator

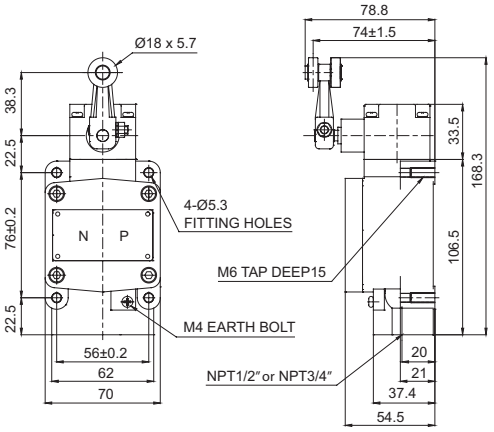
■General Product Specifications

Protection rating		IP66
Mechanical life		Over 2 million operations
Electrical life		Over 0.2 million operations
Allowable operating cycle	Mechanical	120 Operations per minute max.
	Electrical	30 Operations per minute max.
Insulation resistance		100MΩ min. at 500V DC
Initial resistance		50MΩ max.
Dielectric strength	Between non-continuous terminal	1,000V AC, 50 to 60Hz for 1 minute
	Between each terminal and non-conducting metal part	2,000V AC, 50 to 60Hz for 1 minute
Shock resistance	Destruction	Approx. 1,000m/s^2(100G)
	Malfunction	Approx. 250m/s^2(25G)
Vibration resistance		10 to 55Hz 1.5mm double amplitude
Ambient operating temperature		-25°C to +70°C -40°C to +40°C (Cold-proof type) +50°C to +120°C (Heat-resisting type) -55°C to +65°C (IECEx compliant products)
Ambient operating humidity		45 ~ 85% RH

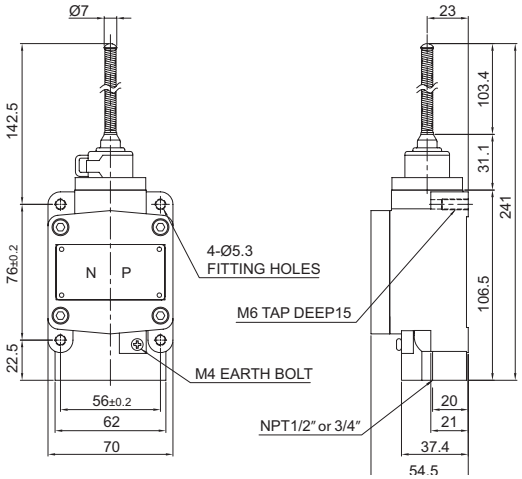
Dimensions

(Units : mm)

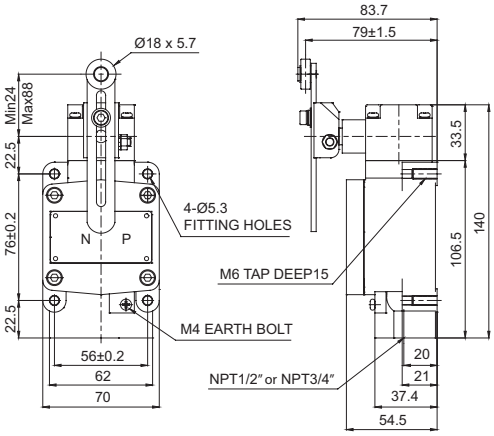
SLP5130-RL(-CR / H)



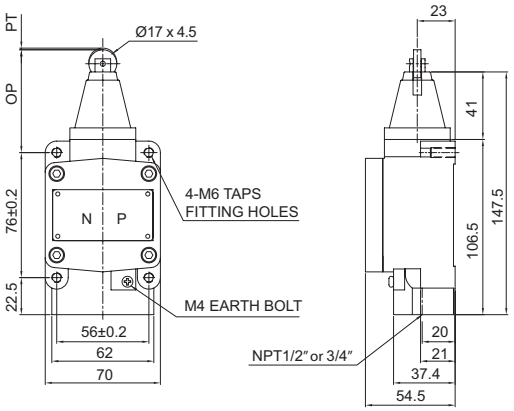
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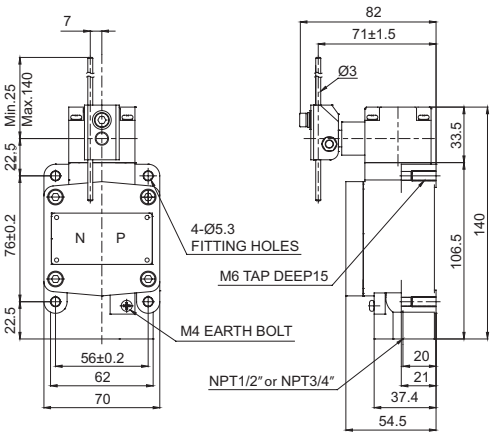
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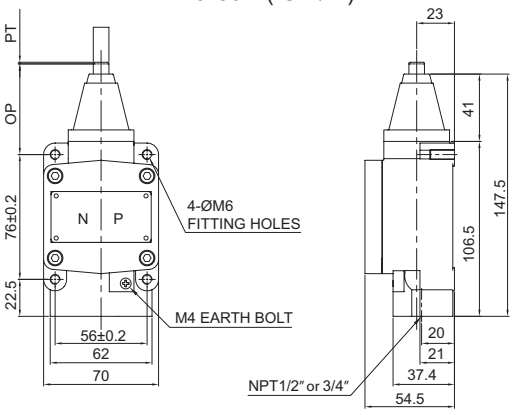
SLP5130-RP(-CR / H)



SLP5130-R(-CR / H)

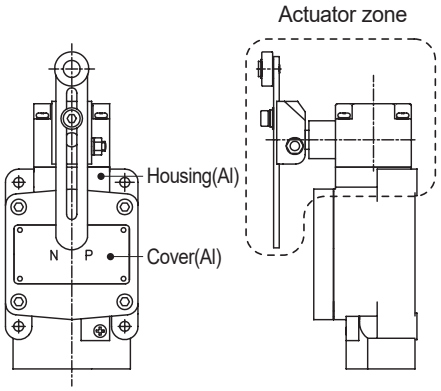


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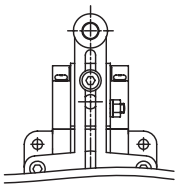
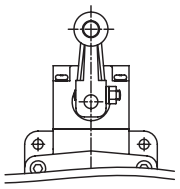
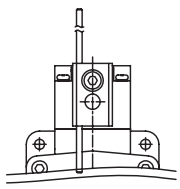
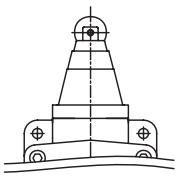
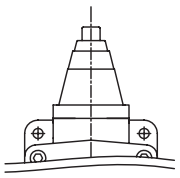
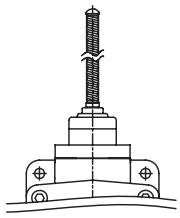


Parts Definition/ Installation

■ Parts Definition



• Actuator zone

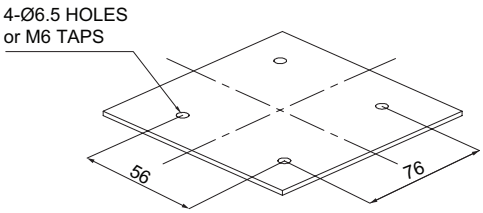
SLP5130-AL	SLP5130-RL	SLP5130-R
		
SLP5130-RP	**SLP5130-P**	**SLP5130-SW**
		

■ Installation

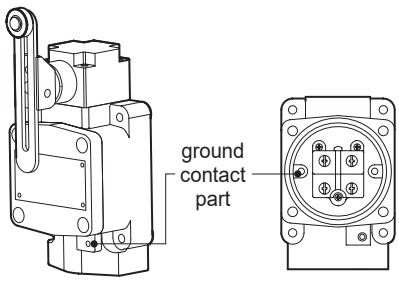
- First, machine taps or holes on the mounting surface ①.
- The mounting hole of this product is M6.
- When machining taps, fasten the bolt through the mounting hole of the product.
- When machining holes, insert the bolt through the hole of the product, and tighten the nut from the opposite side of the mounting surface.

Mounting Hole Specifications

- Machine holes on the mounting surface referring to the diagram below.

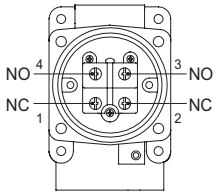


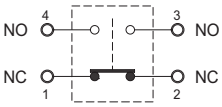
Grounding Instructions



- Please use an M4 bolt at the location marked in the diagram above to ground the product.
- When connecting the grounding cable, please use a ring terminal.
- Please use a grounding cable with a diameter greater than 4mm.

Terminal Box Wiring Instructions





- Terminal block is located inside of the product.
  Unscrew the cover and remove the cover.
- Please apply U-type or O-type terminal at naked tip of the wire for safe connection.
- Refer to the circuit configuration to please wire the power line to terminal.

Installation Environment and Protection Rating

- This product is designed to be explosion proof.
- Please make sure to use the product in an environment that meets the specified explosion proof rating and regulations.
- For further information, please visit our website (www.qlight.com).

MEMO

⚠ For your safety

Specification and dimensions listed in this catalogue subject to change without notice for product quality improvement.
The newest product information is available on our website.(www.qlight.com)
Please read the instruction manual attached to the product carefully before installation and use.

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