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1 Introduction

1.1 General Information for the users

Thank you for purchasing Rotork YTC Limited products. Each product has been fully inspected after its production to offer you the highest quality and reliable performance. Please read the product manual carefully prior to installing and commissioning the product.

- Installation, commissioning, and maintenance of the product may only be performed by trained specialist personnel who have been authorized by the plant operator accordingly.
- The manual should be provided to the end-user.
- The manual can be altered or revised without any prior notice. Any changes in product's specification, design, and/or any components may not be printed immediately but until the following revision of the manual.
- The manual should not be duplicated or reproduced for any purpose without prior approval from Rotork YTC Limited, Gimpo-si, South Korea.
- In case of any other problems that are not stated in this manual, please make immediate contact to Rotork YTC Limited.

1.2 Manufacturer Warranty

- For the safety, it is important to follow the instructions in the manual. Manufacturer will not be responsible for any damages caused by user's negligence.
- Any modifications or repairs to the product may only be performed if expressed in this manual. Injuries and physical damages caused by customer's modifying or repairing the product without a prior consultation with Rotork YTC Limited will not be compensated. If any alterations or modifications are necessary, please contact Rotork YTC Limited directly.
- The warranty period of the product is (24) months from the date of shipment unless stated otherwise.
- Manufacturer warranty will not cover products that have been subjected to abuse, accidents, alterations, modifications, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; damages that occurs in shipment, due to act of God, failure due to power surge, or cosmetic damage. Improper or incorrectly performed maintenance will void this limited warranty.
- Plug an unused conduit entry with a plug to prevent foreign materials from entering.
- For detailed warranty information, please contact the corresponding local Rotork YTC Limited office or main office in South Korea.

2 Product Description

2.1 General

Limit switch box YT-850 series is a device which notifies the central control room or controller when the valve reaches the set position.

2.2 Main Features and Functions

- Non-explosion proof.
- A wide range of uses with IP67 protection grade.
- Various limit switch options available.
- Polyester powder coating of YT-850 resist the corrosion process.

2.3 Label Description

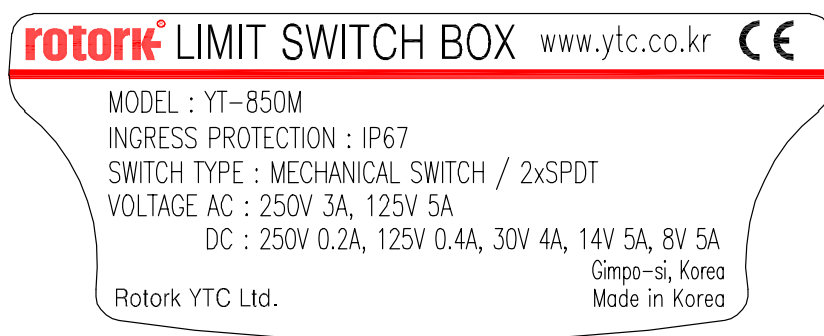


Fig. L-1: Mechanical

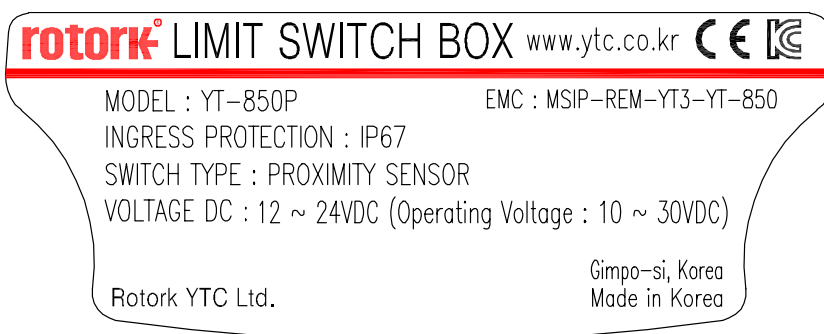


Fig. L-2: Inductive proximity

- MODEL : Indicates the model number
- INGRESS PROTECTION : Indicates enclosure protection grade.
- SWITCH TYPE : Indicates the type and quantity of built-in switches.
- VOLTAGE : Indicates the available voltage and current.

2.4 Product Code

YT-850 1 2 3

1 Switch Type	M : Mechanical
	P : Inductive proximity
2 Conduit Thread	1 : 1/2 NPT
	3 : G 1/2
	4 : M20x1.5P
3 Bracket Type	0 : None
	1 : ST-1 (30 x 80, H20)
	2 : ST-2 (30 x 80, H30)
	3 : ST-3 (30 x 130, H30)
	4 : ST-4 (30 x 130, H50)

2.5 Product Specification

Model		YT-850M	YT-850P
Switch Type		Mechanical, 2 x SPDT	Inductive proximity sensor x 2
Model No. & Manufacturer		SS-5GL (Omron)	PSN17-5DNU (Autonics, NPN type)
Switch Rating	AC	250 V 3 A 125 V 5 A	-
	DC	250 V 0.2 A, 125 V 0.4 A, 30 V 4 A, 14 V 5 A, 8 V 5 A	12 to 24 VDC
Explosion Protection		Non-explosion proof	
Enclosure Protection		IP 67	
Ambient Temperature		-25 to 70 °C (-13 to 158 °F)	
Conduit Entry		1/2 NPT or G 1/2 or M20x1.5P	
Terminal		8 Points	
Mounting Bracket Standard		NAMUR VDI/VDE 3845, ISO 5211	
Housing Material		Aluminum	
Painting		Polyester powder coating	
Weight		880 g (1.94 lb)	



Tested under ambient temperature of 20 °C, absolute pressure of 760 mmHg, and humidity of 65 %.

Please contact Rotork YTC Limited for detailed testing specification.

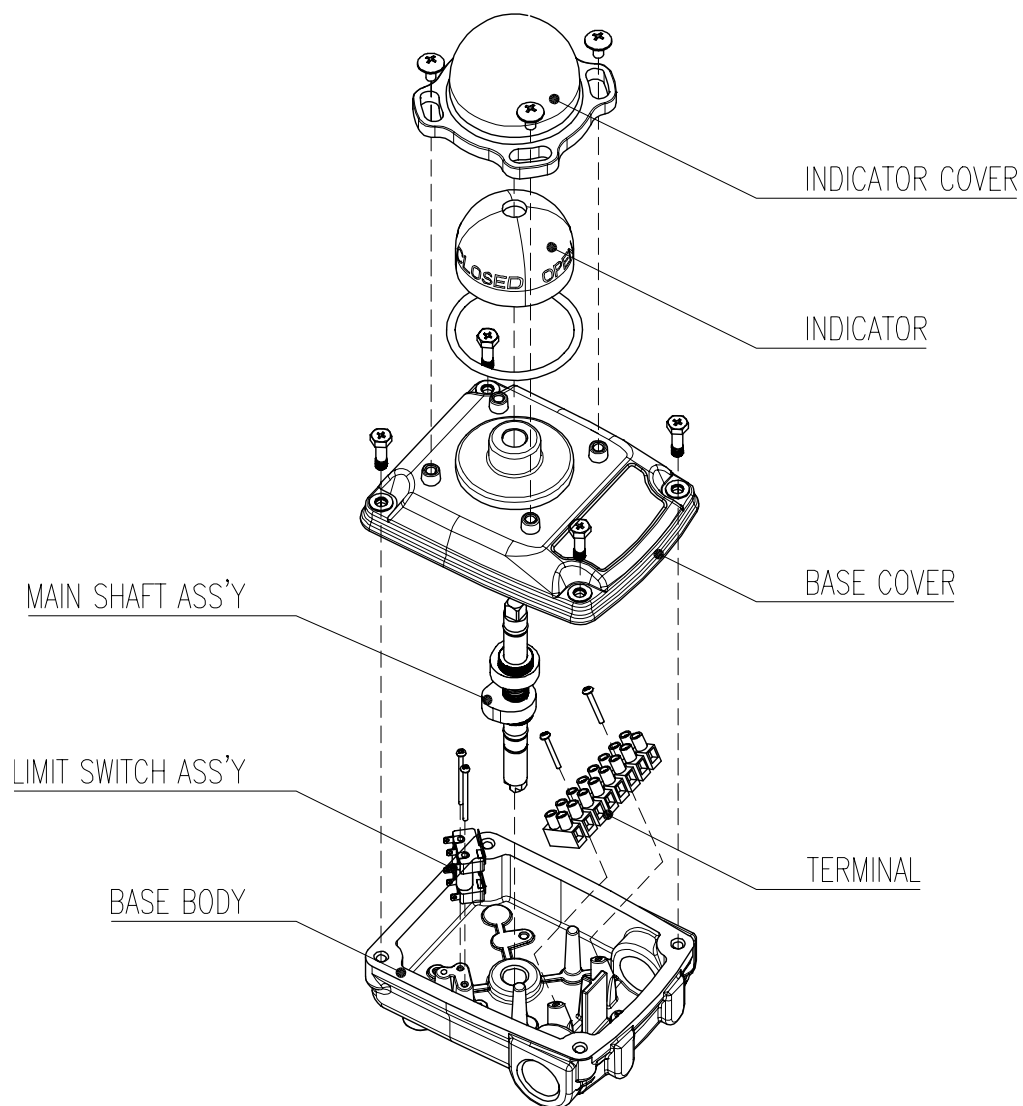
2.6 Certifications

※ All certifications below are posted on Rotork YTC Limited homepage (www.ytc.co.kr).

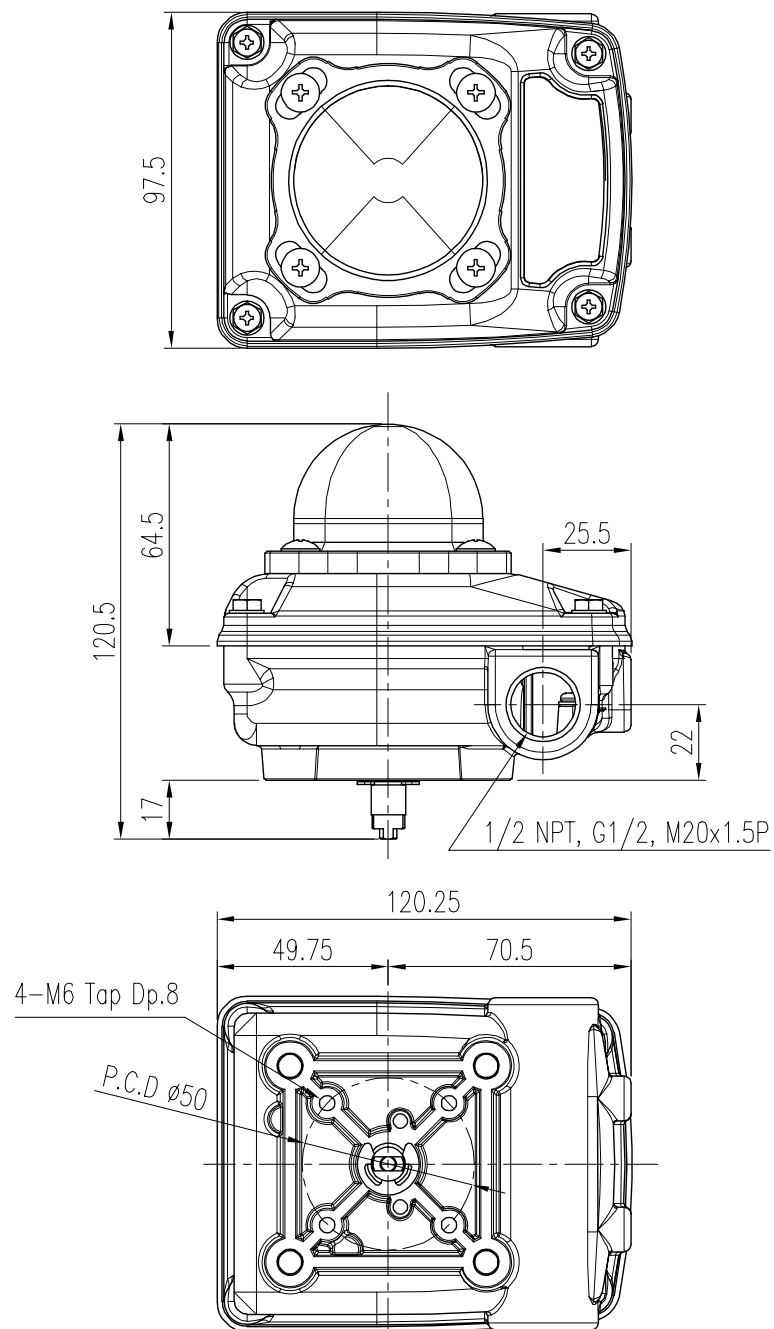
➤ **Electromagnetic Compatibility (EMC)**

- EMC directive 2014/30/EC from April 2016
- EC Directive for CE conformity marking

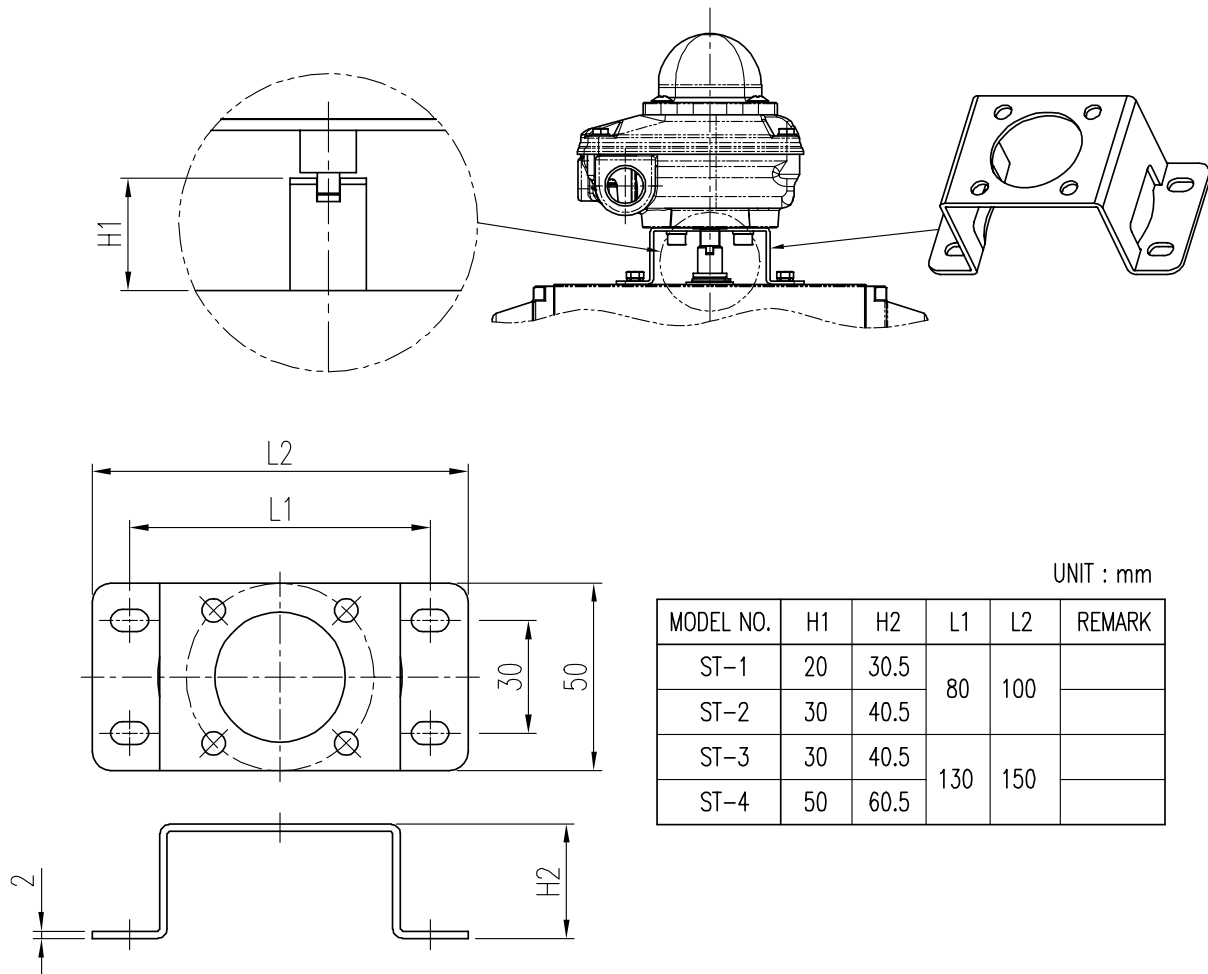
2.7 Parts and Assembly



2.8 Product Dimension



2.9 Bracket Dimension



3 Installation

3.1 Safety

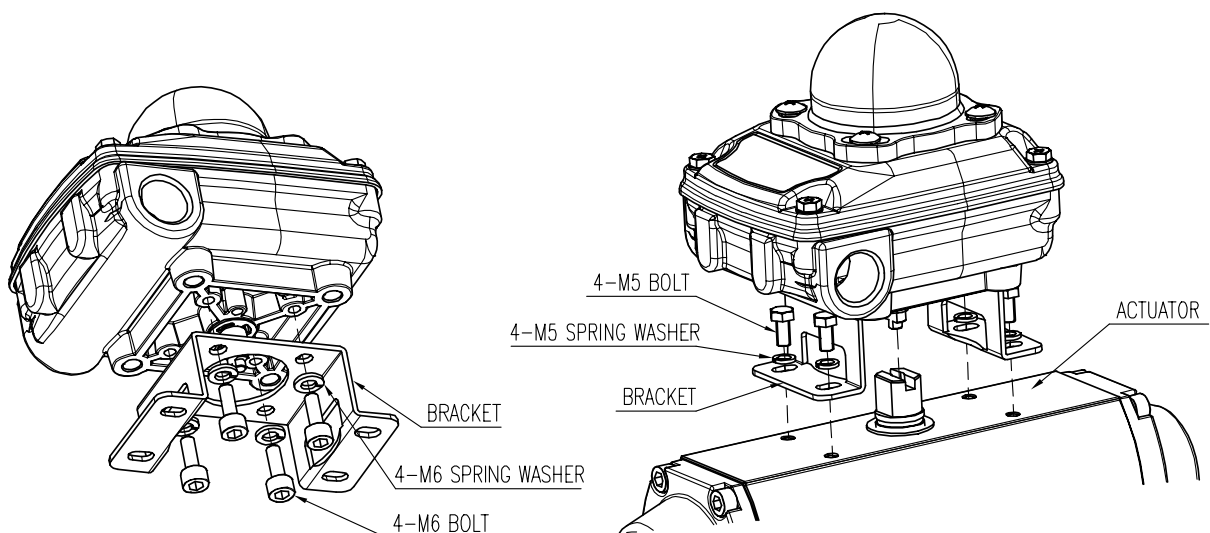
When installing the unit, please ensure to read and follow safety instructions.

- This Product is non-explosion proof and cannot be used in explosive areas.
- Check the unit's specification and ensure to use as specified.
- Any input or supply pressures to valve, actuator, and / or to other related devices must be turned off.
- Use bypass valve or other supportive equipment to avoid entire system "shut down".



3.2 Installation

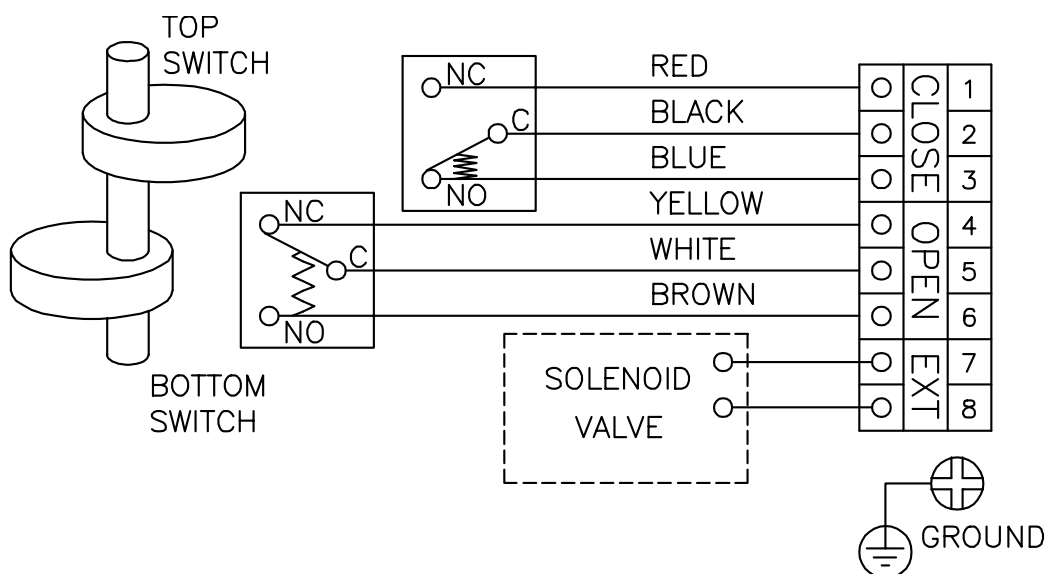
- Assemble limit switch box body with the bracket provided.
- Align the main shaft of the limit switch box with the stem of the actuator. After the alignment, tighten the bracket onto the actuator.



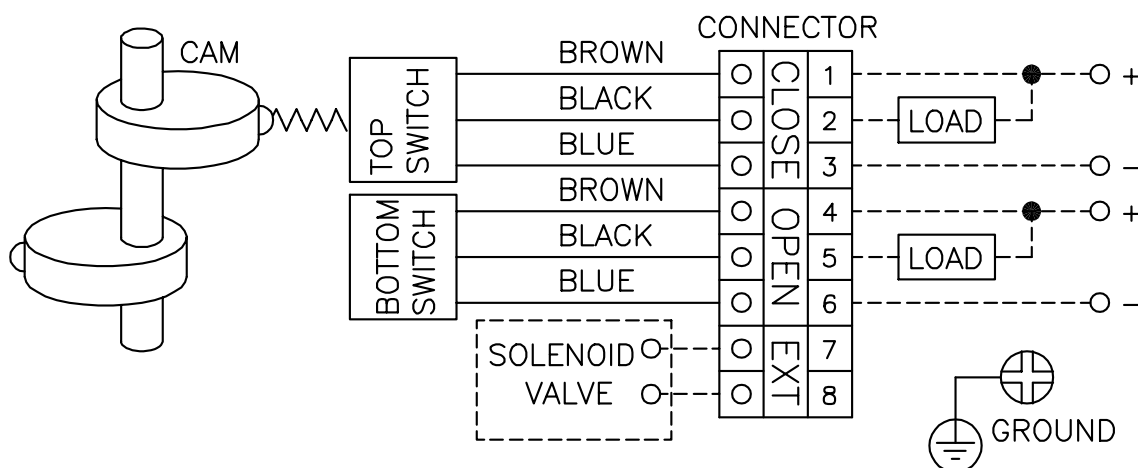
4 Connections - Power

There are two conduit entries on the product. See “2.4 Product Code” for conduit entry threads.

4.1 Mechanical Type (2 x SPDT)



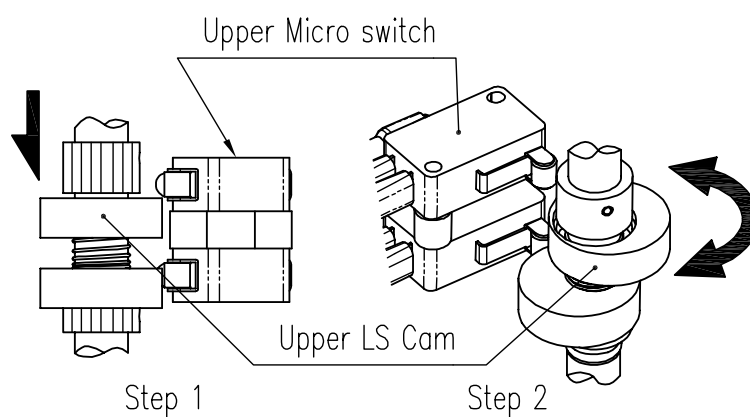
4.2 Inductive proximity sensor (x 2, NPN type)



5 Adjustments

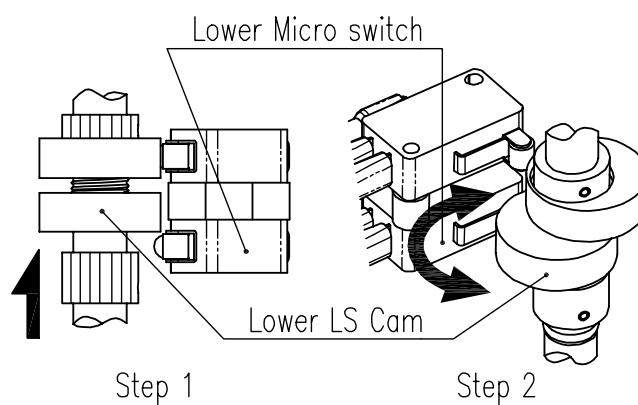
5.1 Upper Switch Adjustment

Push down upper LS cam and turn right or left to required position.



5.2 Lower Switch Adjustment

Pull up lower LS cam and turn right or left to required position.



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