

Cylinder Switch



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About switch single item model number

The single item model number of the switch is as follows.

SW - Switch Model No.

For the lead wire outlet direction, straight type (H) and L-shaped type (V) are available.

2-Color Indicator Solid State Cylinder Switch

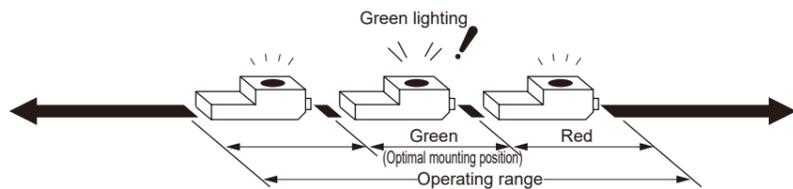
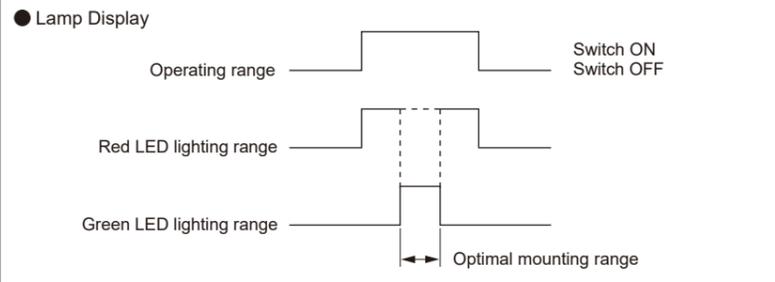


Overview

Conventionally, position detection switches for pneumatic cylinders required troublesome mounting and adjustment work due to their operating range and hysteresis. The 2-color indicator type solid state cylinder switch lights up green at the optimal mounting position and red in the normal operating range, instantly displaying the optimal mounting position. Therefore, it not only eliminates the time and hassle involved in switch adjustment, but also reduces setting errors to zero, allowing for the construction of highly reliable equipment.

Main features

- Easy to mount and adjust
Since the green display position is the optimal mounting position, mounting and adjusting the switch is extremely easy.
- Highly reliable
This is an extremely reliable switch due to the adoption of a unique hybrid IC equipped with a magnetoresistive element.



●Cylinder/Switch Setting Comparison

[Conventional]	[2-color indicator type switch]
<p>① Move the switch from one direction and mark the lighting start position.</p>	<p>① Move the switch in one direction only and fix it at the position where it lights up green.</p>
<p>② Similarly move from the opposite direction and mark the lighting start position.</p>	
<p>③ Align the end face of the switch with the center of the two marks and fix it.</p>	<p>2-color indicator type switch is</p> <ul style="list-style-type: none"> ① Quick mounting ② Easy mounting ③ No setting errors

Strong magnetic field resistant cylinder switch



Overview

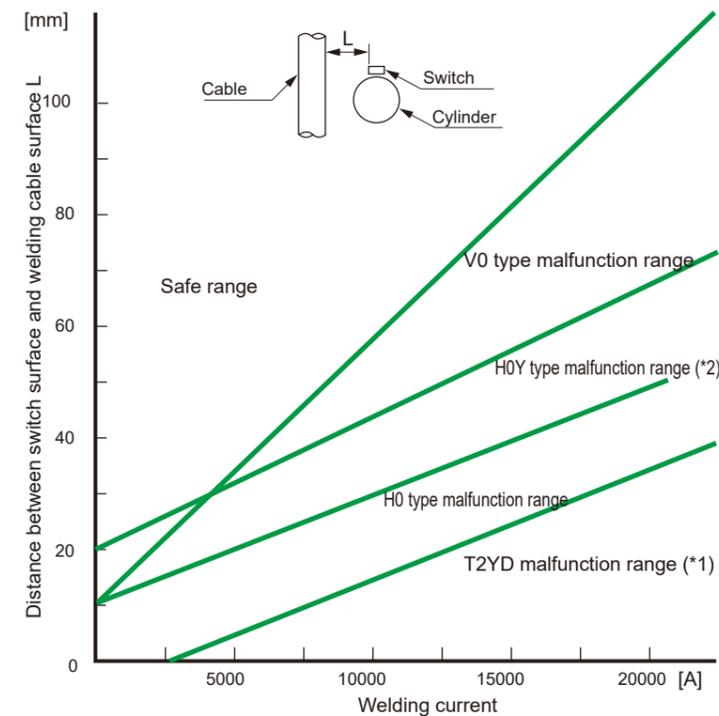
This is a cylinder switch that can be used in environments where strong magnetic fields are generated, such as around spot welding machines and magnetizing equipment in automobile factories.

Main features

- Easy to mount/position (V0, T2YD)
Adopts rail mounting method. Can be mounted with a single screw, and position adjustment is also easy.
- Uses heat-resistant material
The main body is made of metal (H0, H0Y) and self-extinguishing resin UL94-V0 (V0, T2YD), and flame-retardant lead wires are used (optional for T2YD). Prevents combustion and melting of the main body and lead wires due to spatter.
- No polarity (H0, T2YD, H0Y)
Non-polarity achieved with built-in diode bridge. Eliminates the hassle of checking positive and negative polarity, preventing connection errors.
- Easy to adjust with 2-color indicator (T2YD, H0Y)
Since the green display is the optimal mounting position, mounting and adjusting the switch is extremely easy.

⚠ Caution

① Spot welding current - Malfunction distance characteristics (For V0 switch with detection stroke of 30 mm or more)



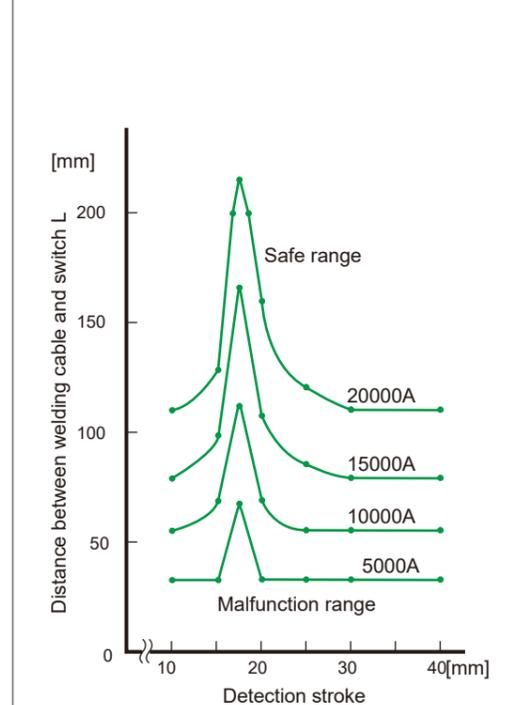
The above external magnetic field resistance performance is the performance when the switch is mounted within the range of "maximum sensitivity position ± 1 mm" for H0, "maximum sensitivity position ± 1.5 mm" for V0, and "optimal mounting range" for H0Y, so be sure to mount the switch within this range. Do not pass welding current while the cylinder piston is moving. If there are two or more welding cables and they are energized simultaneously, the magnetic flux will increase due to the synergistic effect of the cables, so please consult us. Also, it cannot be used if the switch enters the loop of the cable.

*1: Indicates malfunctions caused by demagnetization of the cylinder's piston magnet due to the welding magnetic field.

*2: Malfunction of H0Y refers to output malfunction.

*3: T2YD is a switch exclusively for AC magnetic fields.

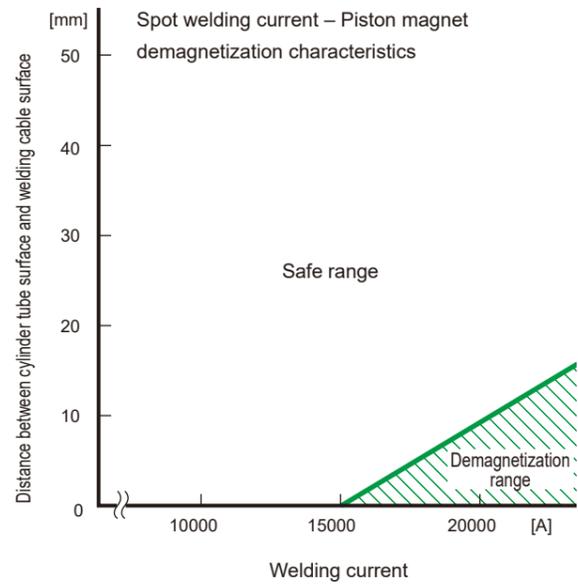
② SSD detection stroke - Malfunction distance characteristics (V0 Switch)



Detection stroke - Malfunction distance characteristics

If used with a detection stroke of less than 30 mm, please maintain the distance shown in the figure above between the welding cable and the switch.

③ H type cylinder switch
Magnet performance near spot welding



Demagnetization occurs when an AC magnetic field is applied to the magnet. The magnet of the H-type switch equipped cylinder has countermeasures and will not demagnetize up to 15,000A, but if it exceeds 15,000A, please maintain the distance shown in the figure above between the cylinder tube surface and the welding cable surface.