

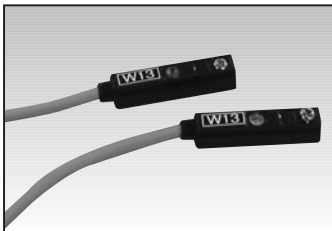
Auto Switches



Mounting	Series	Voltage	Current Range (mA)	Electrical Entry	Indicator Lamp	Applicable Air Cylinder Series
Rail Mount Type	W1H	10~28VDC	100	Grommet	W/Lamp	ACP, ASL ADR, AMR ADM,AG
	W13	24VDC	5~40	Grommet	W/Lamp	
		100VAC	5~20			
Rail Mount Type	W2P	24VDC	6~40	Grommet	W/Lamp	
Tie Rod Mount Type	W3	100VAC	5~25	Grommet	W/Lamp	AM, AL/ALX
		200VAC	5~12.5			
		24VDC	5~50			
Rail Mount Type	W4	100VAC	5~20	Grommet	W/Lamp	AQ
		24VDC	5~40			
Band Mount Type	W5	24 VDC	5~40	Grommet	W/Lamp	AX
		100VAC	5~20			
Intense-Magnetism-Resistant Type	W6 W7	100VAC	20	Grommet	W/Lamp	AQ, AM
		24VDC	5~40			
		100VAC	5~20			
Rail Mount Type	W8 W9	24VDC	5~40	Rail mount	W/Lamp	NF
		110VDC	5~20	Rail mount		NLCD
		24VDC	5~30			

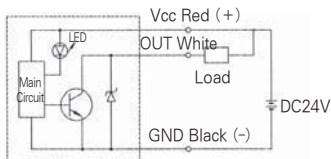
Reed Switches Type / Solid State Switch Type / Rail Mounted Type - Series W1

Specifications of Solid State Switch

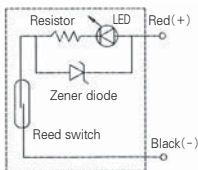


Auto Switch Internal Circuit

W1H□



W13□



Auto Switch Specifications

Auto Switch No.	W1H□	W13□
Lead Wire Entry	Axial Direction	Right Angle
Application	Position Sensing	
Wiring Method	3 Wire System	2 Wire System
Power Source	DC10~28V	—
Load Voltage	DC28V or less	DC24V, AC100V
Current Consumption	40mA or less	DC24V : 5~40mA AC120V : 5~20mA
Internal Voltage Drop	below 0.5V at 40mA	below 2.4V at 40mA
Leakage Current	below 10μA at DC24V	
Load Current	OFF: 5mA or Less ON : 35mA or Less	—

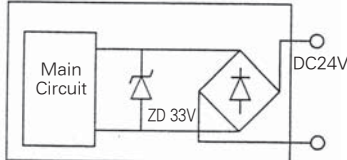
- Operating Time : Max. 1ms
- Lead Wire : Oil resistant vinyl cord. ϕ 0.13, 0.2mm², 3 Colors(red ,white, black), Colors(red, black), 0.5m long
- Shock Resistance : 1000m/S² (102G)
- Insulation Resistance : 50M Ω or more under the test voltage 500V DC between case and cable.
- Withstand Voltage : 1000VAC for 1min.(between lead wire and case)
- Ambient Temperature : -10~60℃
- Protection Structure : IEC Standard, watertight and oil resisting structure

※ " L " is added to the end when the lead is 3m long.
(Example : W1□L)

Automatic Solid State Switches / Intense-Magnetism-Resistant Type - Series W2



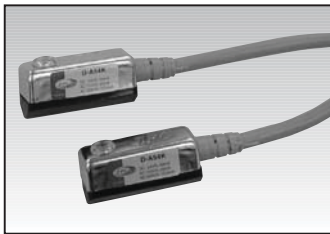
Auto Switch Internal Circuit



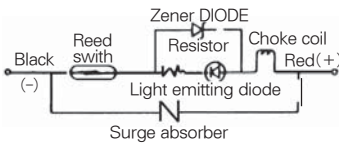
Auto Switch Specifications

Wiring Method	2 Wire
Applications	24V DC Relay, Sequence controller
Load Voltage	24V DC
Load Current	6~40mA
Internal Voltage Drop	below 6V at 40mA
Leakage Current	1.0mA
Indicator Lamp	Appropriate operating range-Green Light emitting diode (LED)
Acting Time	40ms or Less
Lead Wire	Oil proof vinyl cap tire cord $\phi 6$, 0.5mm ² , 2Colors(white, black)
Impact Resistance	1,000G
Insulation Resistance	50M Ω or more at 500DC
Ambient Temperature	-10℃~60℃(14~140°F)
Protection Structure	EC Standard IP67(Watertight)

Reed Switches Type / Tie Rod Mounted Type - Series W3



Auto Switch Internal Circuit



Auto Switch Specifications

Auto Switch Model	W3			
Application	Relay, Sequence Control			
Load Voltage	DC24V	AC100V	AC200	DC24V
Max. Load Current/Range of Load Current	V5~50mA	5~25mA	5~12.5mA	100mA or less
Protection Circuit Contact Breaker Point	Built-in			
Internal Voltage Drop	2.4V			1.5V or less
Indicator Lamp	ON:Red Light Emitting Diode			
Output Type	-			NPN(PNP)

- Leakage Current - None
- Response Time - 1.2ms
- Lead Wire - Oil proof vinyl. $\phi 4(0.3)$ mm², 2 wire(red, black), 0.5m
- Impact Resistance - 30G
- Insulation Resistance - 50M Ω or more under the test voltage 500VDC (Between case and cable)
- Withstand Voltage - 1500VAC 1min(between case and cable)
- Ambient Temperature - 5~60℃(41~140°F)
- Protection Structure - IEC spec IP67, Water-proof(JISCO920), Oil-proof.

※ If 3m lead wire is required, L is put at end of model numbers.
(Example : W3L)

DS3000
DS5000
DP3000/3000/5000
DS6000
DS3000 (Base Ported)
DX1,2
DX2R
DH
DW
DM
DT220/UDT220/DC
TPC-1000/1200
PC
PF
PR
PL
PP
PFH/PFU
PLV
TXF
PVR/PNR
PER2000/3000
TAD
EP
EM/EL
SPSA
SPS
SQ
SC
SP
SP4000/SPM
SP2000
SN
SQ2
SH
DCH
SF
ST
W1
W2/W3
W4/W5
W6/W7
Mini Auto Switch

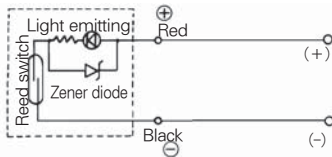
Reed Switches Type / Rail Mounted Type - Series W4



Auto Switch Specifications

Auto Switch Model	W4		
Application	Position Sensing		
Voltage	DC24V	AC100V	DC24V
Range of Load Current	5~40mA	5~20mA	100mA or less
Protection Circuit for Contact Breaker Point	-		○
Internal Voltage Drop	2.4V or less		1.5V or less
Indicator Lamp	ON: Red light emitting diode		
Output Type	-		NPN(PNP)

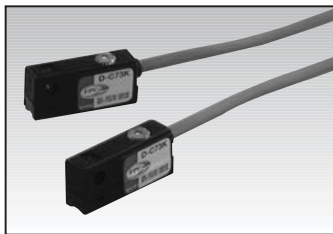
Auto Switch Internal Circuit



- Leakage Current - None
- Response Time - 1.2 ms
- Lead Wire - Oil proof vinyl. ϕ 3.4, 0.2mm², 2 wire (red, black), 0.5 m
- Impact Resistance - 30G
- Insulation Resistance - 50M Ω or more under the test voltage 500VDC (Between case and cable)
- Withstand Voltage - 1500VAC 1min (between case and cable)
- Ambient Temperature - 5~60°C (40~140°F)
- Protection Structure - IEC spec IP67, Water-proof (JISCO920), Oil-proof.

※ If 3m lead wire is required, L is put at the end of model numbers.
(Example : W4L)

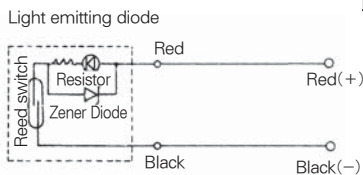
Reed Switches Type / Band Mounted Type - Series W5



Specifications W5 Type (With Indicator Lamp)

Auto Switch Model	W5		
Application	Position Sensing		
Load Voltage	DC24V	AC100V	DC24V
Max. Load Current/Range of Load Current	5~40mA	5~20mA	100mA or less
Protection Circuit for Contact Breaker Point	-		○
Internal Voltage Drop	2.4V or less		1.5V or less
Indicator Lamp	ON: Red light emitting diode		
Output Type	-		NPN(PNP)

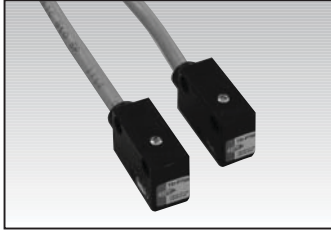
Auto Switch Internal Circuit



- Leakage Current - None
- Response Time - 1.2ms
- Lead Wire - Oil proof vinyl, ϕ 3.4 0.2mm², 2 Wire (red, black), 0.5m (18in)
- Impact Resistance - 30G
- Insulation Resistance - 50M Ω or more under the test voltage 500VDC (Between case and cable)
- Withstand Voltage - 1500VAC 1min (between case and cable)
- Ambient Temperature - -10~60°C (14~140°F)
- Protection Structure - IEC spec IP67, Water-proof (JISCO920), Oil-proof.

※ If 3m lead wire is required, L is put at the end of numbers.
(Example : W5L)

Automatic Reed Switches / Intense-Magnetism-Resistant Type - Series W6/W7



Auto Switch Specifications

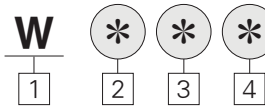
Auto Switch Model	W6(L)(Z)	W7(L)(Z)	
Operating Voltage	AC110V	DC24V	AC100V
Operating Current Range	20mA	5~40mA	5~20mA
Internal Voltage Drop	0V	Max. 2.4V	
Polarity	Non-Polarity	Polarity	
Operating Time	1.2m/sec		
Impact Resistance	30G		
Protection Structure	IEC Standard IP67		
Pilot Lamp	OFF Lighting(Red LED)	ON Lighting(Red LED)	
Leakage Current	Max. 1.8mA	0	
Ambient Temperature Range	-10~60°C (14~140°F)		
Insulation Resistance	50M Ω /500V DC		
Application	Relay, Sequence Controller		

Mini Auto Switch



- Enlargement of standard lead wire
- Oil proof and internal combustion is excellent
- Compact design
- Easy to check existing / non plug

How to Order



[1] W : TPC AUTO SWITCH MODEL

- [2] 8 : Mini existing plug point AUTO SWITCH
 9 : Mini non plug point round AUTO SWITCH

[3] H : LEAD WIRE HORIZONTAL TYPE
 V : LEAD WIRE VERTICAL TYPE

- [4] Blank : Wiring Method(2 wires), LEAD WIRE Length(1m)
 L : LEAD WIRE(3m)
 N : Wiring Method(3 wires, NPN), LEAD WIRE Length(1m)
 P : Wiring Method(3 wires, PNP), LEAD WIRE Length(1m)

- NL : Wiring Method(3 wires, NPN), LEAD WIRE (3m)
 PL : Wiring Method(3 wires, PNP), LEAD WIRE (3m)
 *N, P, NL, PL are for non plug point round type.

Specification

Items	Existing plug point(W8**)	Non plug point(W9**)	Note Plug point(W9**)
SIZE	ϕ 4	ϕ 4	ϕ 4
Power Source	DC24V, AC100V	DC24V	DC24V
Current	5~40mA (DC24V)	5~30mA	100mA or less
Consumption	5~20mA(AC110V)		
Lead wire entry	Vertical, Horizontal	Vertical, Horizontal	Vertical, Horizontal
LAMP	ON : Red LED	ON : Green LED	ON : Red LED
Wiring Method	2 wires	2 wires(3 wires)	3 wires
Power Method	-	-	NPN, PNP
Mounting	Mounting screw on rail	Mounting screw on rail	Mounting screw on rail
Acting Time	under 1.2ms	1.2ms or less	1.2ms or less
Internal pressure	under 2.4V	under 4.5V	under 1.5V
Min.operating gauss	over 65G	over 35G	over 26G
Max.operating gauss	320G or less		
Life Time	5V, 5mA : 1×10^7 12V, 5mA : 1×10^7 24V, 40mA : 4×10^6	-	-
Leakage Current	-	below 1.5mA at DC24V	below 100mA at DC24V

Sensing Distance of Switch

Model	W8**	W9**
L(Most sensitive position)	13	6.5
Sensing Distance	7 ~ 11	4.3 ~ 4.7

DS3000
 DS5000
 DP3000/3000/5000
 DS6000
 DS3000 (Base Ported)
 DX1,2
 DX2R
 DH
 DW
 DM
 DT220/UDT220/DC
 TPC-1000/1200
 PC
 PF
 PR
 PL
 PP
 PFH/PFU
 PLV
 TXF
 PVR/PNR
 PER2000/3000
 TAD
 EP
 EM/EL
 SP5A
 SPS
 SQ
 SC
 SP
 SP4000/SPM
 SP2000
 SN
 SQ2
 SH
 DCH
 SF
 ST
 W1
 W2/W3
 W4/W5
 W6/W7 Mini Auto Switch