

# FOR AIR CYLINDER AUTO SWITCHES

- Reed S/W Type & Solid State Type
- 전품목 CE인증
- 전품목 방수(IP67)

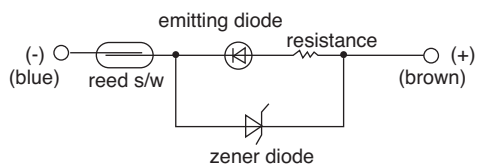


# [AP] D-A93 (REED S/W TYPE)

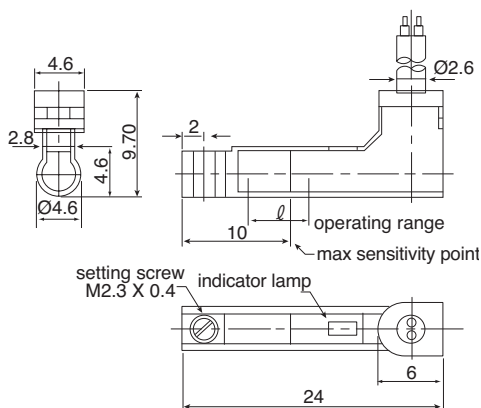


## CONNECTION DIAGRAM

(AP) D-A 93



## MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION



## CHARACTER & APPLICATION CONDITION

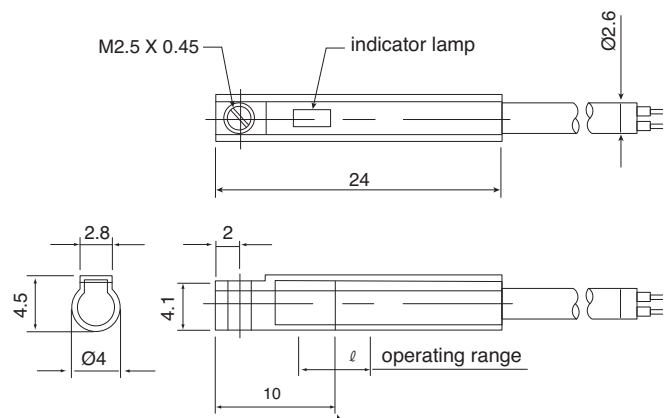
|                   |  |
|-------------------|--|
| Leakage Current   | None   |
| Lead Wire         | Oil resistant vinyl jacket VW-1                  |
| Jacket            | 2.6Ø mm(Grey)                                    |
| Conductor         | 0.08 × 30(coil)                                  |
| Shock/Vibration   | 30G  |
| Insulation        | Up to 50MΩ at DC500V Between case & Lead wire    |
| Endurance Voltage | For 1 Min under AC1500V Between case & Lead wire |
| Temperature Range | -10~60℃  |
| Enclosure         | IP67   |
| Response Time     | Less than 1msec                                  |

※ Standard Lead wire is 1 meter long, Longer size are available by order.

## (AP) D-A93, (AP) D-A93V | SPECIFICATION

| Specification           | (AP) D-A93(BAR), (AP) D-A93V(ANGLE TYPE) |        |
|-------------------------|--|--------|
| Input Load              | PLC, Relay                               |        |
| Load Voltage            | DC24V                                    | AC110V |
| Load Current            | 5~40mA                                   | 5~20mA |
| Contact Protect Circuit | None                                     |        |
| Int'l Voltage Drop      | 2.7V                                     |        |
| Signal Lamp             | Red LED Emitting when S/W ON             |        |

## MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION



# [AP] W13H, (AP)D-Z 73 (REED S/W TYPE)



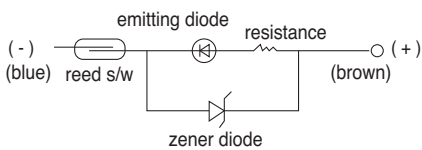
## ◎ CHARACTER & APPLICATION CONDITION

|                   |  |
|-------------------|--|
| Leakage Current   | None   |
| Lead Wire         | Oil resistant vinyl jacket VW-1                  |
| Jacket            | 3.5Ø mm(Grey, Black)                             |
| Conductor         | 0.08 × 60(coil)                                  |
| Shock/Vibration   | 30G  |
| Insulation        | Up to 50MΩ at DC500V Between case & Lead wire    |
| Endurance Voltage | For 1 Min under AC1500V Between case & Lead wire |
| Temperature Range | -10~60℃  |
| Enclosure         | IP67   |
| Response Time     | Less than 1msec                                  |

※ Standard Lead wire is 1 meter long, Longer size are available by order.

## CONNECTION DIAGRAM

(AP) W13H



## ◎ (AP) W13H, D-Z73 | SPECIFICATION

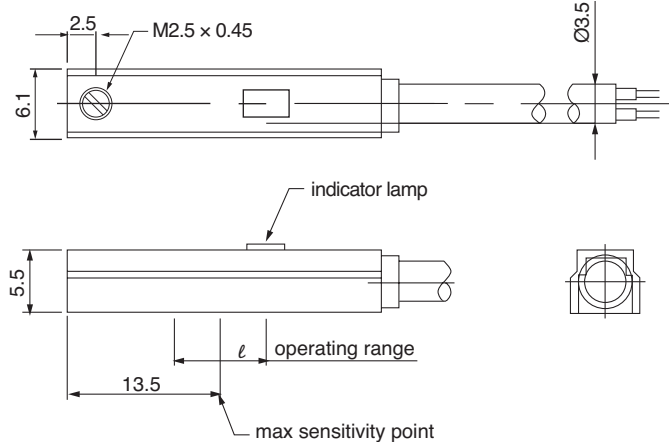
| Specification           | (AP) W13H, D-Z73        |        |
|-------------------------|-------------------------|--------|
| Input Load              | PLC, Relay              |        |
| Load Voltage            | DC24V                   | AC110V |
| Load Current            | 5~40mA                  | 5~20mA |
| Contact Protect Circuit | None                    |        |
| Int'l Voltage Drop      | 2.7V                    |        |
| Signal Lamp             | Red LED Emitting S/W ON |        |

## AUTO S/W TESTER

(Reed S/W Type)



## MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION



# [AP] D-C7□ SERIES (REED S/W TYPE)



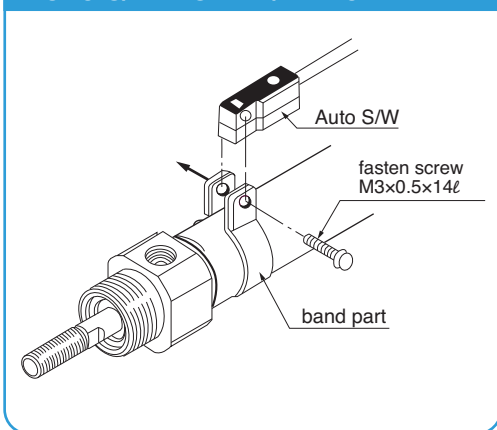
## (AP) D-C73, D-C75 AUTO S/W |

### ◎ CHARACTER & APPLICATION CONDITION

|                   |   |
|-------------------|---|
| Leakage Current   | None  |
| Lead Wire         | Oil resistant vinyl jacket VW-1                       |
| Jacket            | 3.5Ø mm(Grey, Black)                                  |
| Conductor         | 0.08 × 60(coil)                                       |
| Shock/Vibration   | 30G   |
| Insulation        | Up to 50M $\Omega$ at DC500V Between case & Lead wire |
| Endurance Voltage | For 1 Min under AC1500V Between case & Lead wire      |
| Temperature Range | -10~60°C  |
| Enclosure         | IP67  |
| Response Time     | Less than 1msec                                       |

※ Standard Lead wire is 1 meter long, Longer size are available by order.

### AUTO S/W INSTALL/REMOVE

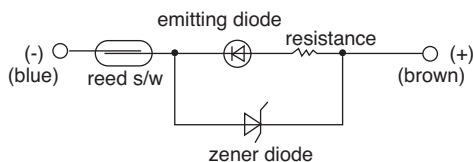


### ◎ (AP) D-C73, D-C75 | SPECIFICATION

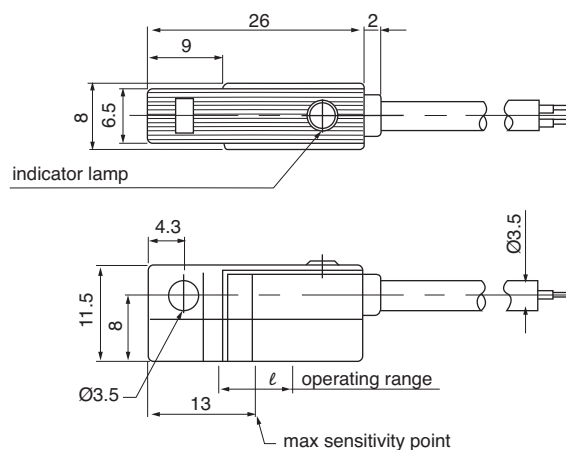
| Specification           | (AP) D-C73                   |        | (AP) D-C75 |        |        |
|-------------------------|------------------------------|--------|------------|--------|--------|
| Input Load              | PLC, Relay                   |        | PLC, Relay |        |        |
| Loading Voltage         | DC24V                        | AC110V | DC24V      | AC110V | AC220V |
| Loading Current         | 5~40mA                       | 5~20mA | 5~40mA     | 5~20mA | 5~12mA |
| Contact Protect Circuit | None                         |        |            |        |        |
| Int'l Voltage Drop      | Below 2.7V                   |        |            |        |        |
| Signal Lamp             | Red LED Emitting when S/W on |        |            |        |        |

### CONNECTION DIAGRAM

(AP) D-C73, (AP) D-C75



### MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION



# [AP] D-A7□ SERIES (REED S/W TYPE)



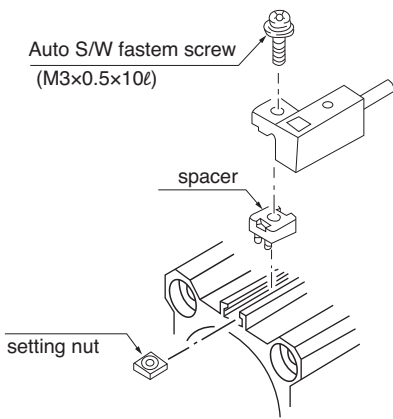
(AP) D-A73, D-A72 AUTO S/W |

⊙ CHARACTER & APPLICATION CONDITION

|                   |  |
|-------------------|--|
| Leakage Current   | None   |
| Lead Wire         | Oil resistant vinyl jacket VW-1                  |
| Jacket            | 3.5Ø mm(Grey, Black)                             |
| Conductor         | 0.08 × 60(coil)                                  |
| Shock/Vibration   | 30G  |
| Insulation        | Up to 50MΩ at DC500V Between case & Lead wire    |
| Endurance Voltage | For 1 Min under AC1500V Between case & Lead wire |
| Temperature Range | -10~60℃  |
| Enclosure         | IP67   |
| Response Time     | Less than 1msec                                  |

※ Standard Lead wire is 1 meter long, Longer size are available by order.

AUTO S/W INSTALL/REMOVE

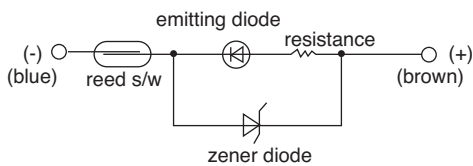


⊙ (AP) D-A73, D-A72 | SPECIFICATION

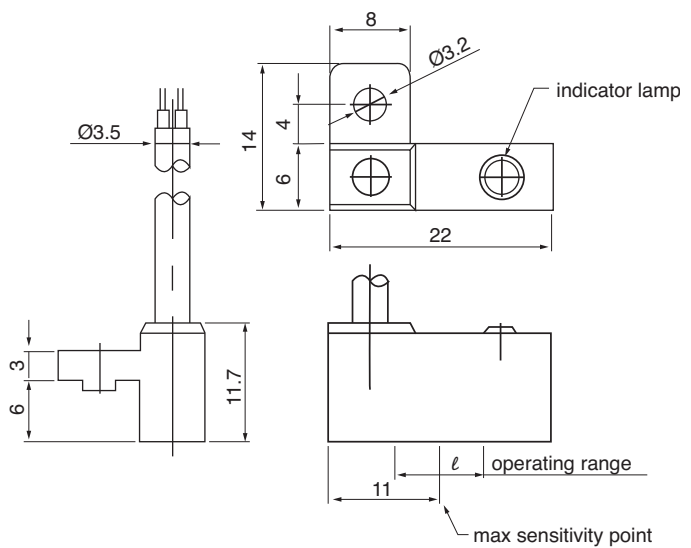
| Specification           | (AP) D-A73                   |        | (AP) D-A72 |        |        |
|-------------------------|------------------------------|--------|------------|--------|--------|
| Input Load              | PLC, Relay                   |        | PLC, Relay |        |        |
| Loading Voltage         | DC24V                        | AC110V | DC24V      | AC110V | AC220V |
| Loading Current         | 5~40mA                       | 5~20mA | 5~40mA     | 5~20mA | 5~12mA |
| Contact Protect Circuit | None                         |        |            |        |        |
| Int'l Voltage Drop      | Below 2.7V                   |        |            |        |        |
| Signal Lamp             | Red LED Emitting when S/W on |        |            |        |        |

CONNECTION DIAGRAM

(AP) D-A73, (AP) D-A72



MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION

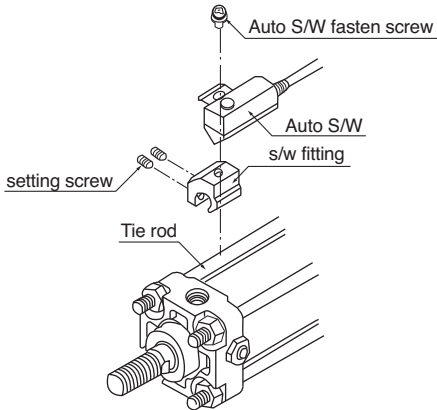




# [AP] D-A5□ SERIES (REED S/W TYPE)

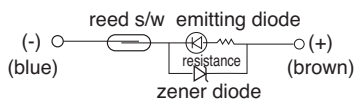


## AUTO S/W INSTALL/REMOVE

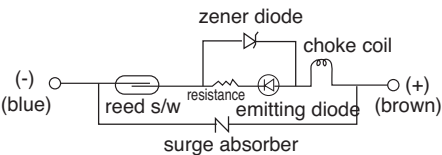


## CONNECTION DIAGRAM

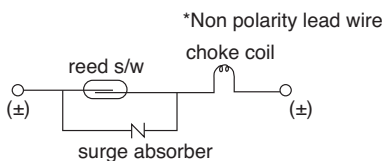
(AP) D-A 53



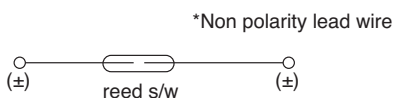
(AP) D-A 54



(AP) D-A 64



(AP) D-A 67



## (AP) D-A5□ SERIES AUTO S/W |

### ⊙ CHARACTER & APPLICATION CONDITION

|                   |  |
|-------------------|--|
| Leakage Current   | None   |
| Lead Wire         | Oil resistant vinyl jacket VW-1                  |
| Jacket            | 3.5∅ mm(Grey, Black)                             |
| Conductor         | 0.08 × 60(coil)                                  |
| Shock/Vibration   | 30G  |
| Insulation        | Up to 50 MΩ at DC500V Between case & Lead wire   |
| Endurance Voltage | For 1 Min under AC1500V Between case & Lead wire |
| Temperature Range | -10~60℃  |
| Enclosure         | IP67   |
| Response Time     | Less than 1msec                                  |

※ Standard Lead wire is 1 meter long, Longer size are available by order.

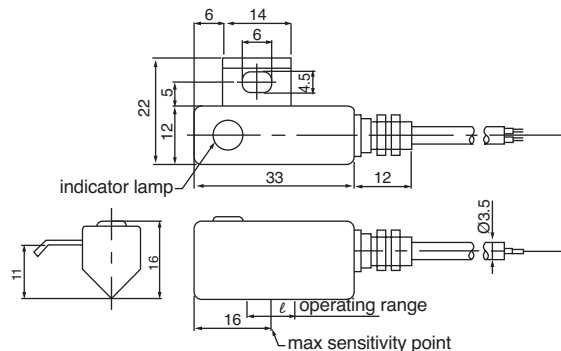
### ⊙ (AP) D-A54, D-A53 | SPECIFICATION

| Specification           | (AP) D-A54                   |        |          | (AP) D-A53 |
|-------------------------|------------------------------|--------|----------|------------|
| Input Load              | PLC, Relay                   |        |          | PLC, Relay |
| Loading Voltage         | DC24V                        | AC110V | AC220V   | DC24V      |
| Loading Current         | 5~50mA                       | 5~25mA | 5~12.5mA | 5~20mA     |
| Contact Protect Circuit | Built in                     |        |          | None       |
| Int'l Voltage Drop      | Below 2.7V                   |        |          |            |
| Signal Lamp             | Red LED Emitting when S/W on |        |          |            |

### ⊙ (AP) D-A64, D-A67 | SPECIFICATION

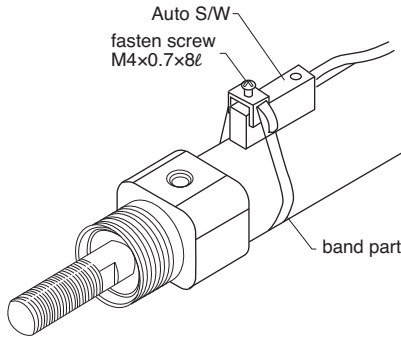
| Specification           | (AP) D-A64 |        |        | (AP) D-A67 |        |        |
|-------------------------|------------|--------|--------|------------|--------|--------|
| Input Load              | PLC, Relay |        |        | PLC, Relay |        |        |
| Loading Voltage         | DC24V      | AC110V | AC220V | DC24V      | AC110V | AC220V |
| Loading Current         | 50mA       | 25mA   | 12.5mA | 100mA      | 50mA   | 25mA   |
| Contact Protect Circuit | None       |        |        |            |        |        |
| Int'l Voltage Drop      | Below 25∅  |        |        | Below 1∅   |        |        |
| Signal Lamp             | None       |        |        |            |        |        |

## MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION



# AUTO S/W 취부방법 및 액세서리 및 사이즈(Band & Brackets)

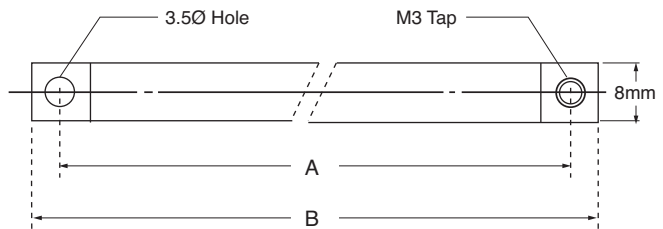
## FREE BAND PAT NO.0243955



### Free Band Setting Example for DC73 & D-C75

1. Put Free Band to cylinder and insert Auto S/W between cylinder & Free Band.
2. Positioning Auto S/W on the max sensitivity point and pull over the tip end of Free Band by plier.
3. Tightening Auto S/W by driving setting screw on the Free Band
4. After tightening out off excess parts of Band.
5. Applicable cylinder size is 6Ø to 40 Ø for standard size of Free Band.  
Above 40Ø mm to 80Ømm, you are requested a special order.

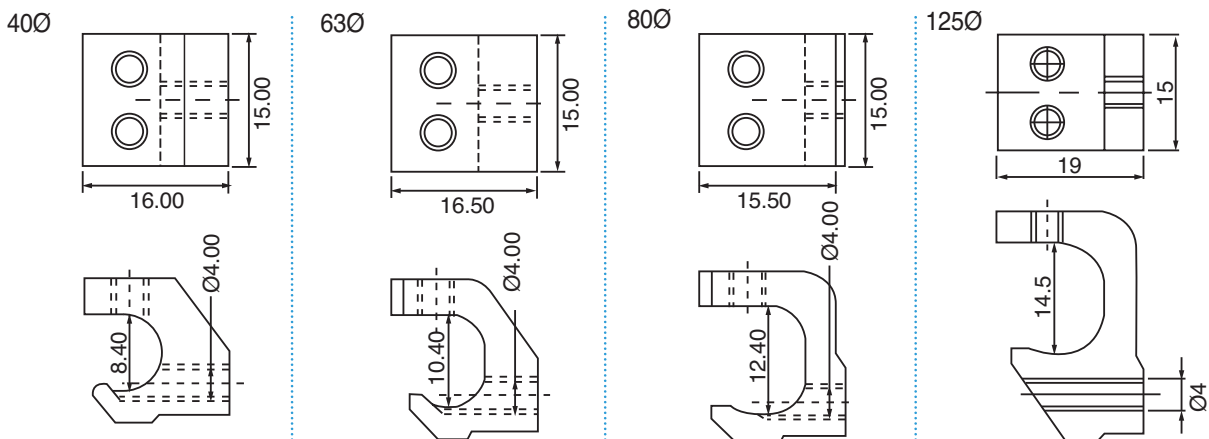
## FASTEN BAND FOR AUTO S/W FOR DC-73, D-C75(only for SUS cyl)



### ◎ SPECIFICATION FOR FASTEN BAND

| NO | cyl outer dia | A     | B    |
|----|---------------|-------|------|
| 1  | 6 Ø           | 34.5  | 41   |
| 2  | 10 Ø          | 45.5  | 52   |
| 3  | 15 Ø          | 60.5  | 67.5 |
| 4  | 20 Ø          | 76.5  | 83   |
| 5  | 25 Ø          | 92.5  | 99   |
| 6  | 30 Ø          | 107.5 | 114  |
| 7  | 32 Ø          | 114.5 | 121  |
| 8  | 40 Ø          | 140.5 | 147  |

## FITTING BRACKETS ON TIE ROD TYPE(D-A54 SERIES)

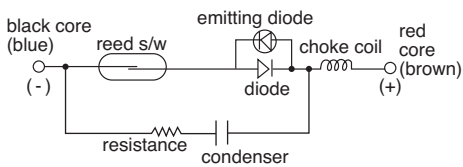


# [AP] D-5□ SERIES (REED S/W TYPE)

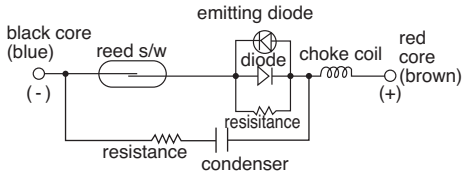


## CONNECTION DIAGRAM

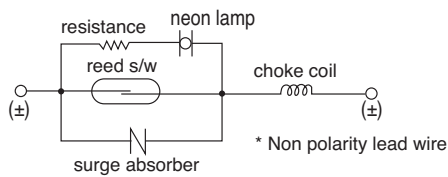
(AP) D-57



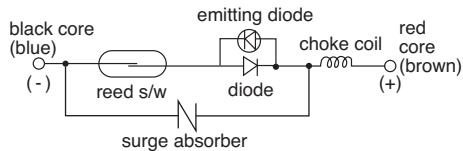
(AP) D-58



(AP) D-50



(AP) D-51



## (AP) D-5□ SERIES AUTO S/W |

### ⊙ CHARACTER & APPLICATION CONDITION

|                   |  |
|-------------------|--|
| Leakage Current   | None   |
| Lead Wire         | Oil resistant vinyl jacket VW-1                  |
| Jacket            | 4.5Ø mm(Grey, Black)                             |
| Conductor         | 0.08 × 60(coil)                                  |
| Shock/Vibration   | 30G  |
| Insulation        | Up to 50MΩ at DC500V Between case & Lead wire    |
| Endurance Voltage | For 1 Min under AC1500V Between case & Lead wire |
| Temperature Range | -10~60℃  |
| Enclosure         | IP67   |
| Response Time     | Less than 1msec                                  |

※ Standard Lead wire is 1 meter long, Longer size are available by order.

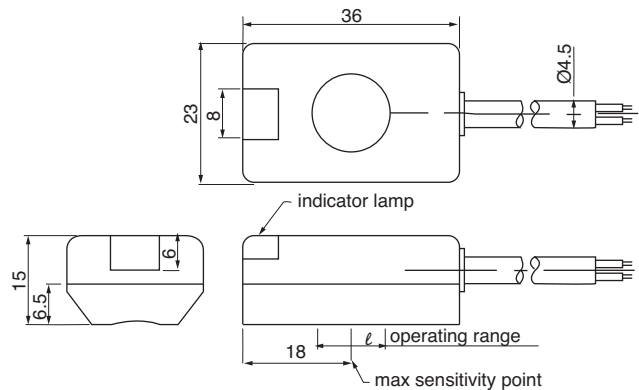
### ⊙ (AP) D-57, D-58 | SPECIFICATION

| Specification           | (AP) D-57                    | (AP) D-58  |
|-------------------------|------------------------------|------------|
| Input Load              | PLC, Relay                   | PLC, Relay |
| Loading Voltage         | DC24V                        |            |
| Loading Current         | 5~50mA                       | 10~100mA   |
| Contact Protect Circuit | Bulted in                    |            |
| Int'l Voltage Drop      | Below 2.7V                   |            |
| Signal Lamp             | Red LED Emitting when S/W on |            |

### ⊙ (AP) D-50, D-51 | SPECIFICATION

| Specification           | (AP) D-50            |          | (AP) D-51                    |        |          |
|-------------------------|----------------------|----------|------------------------------|--------|----------|
| Input Load              | Relay                |          | PLC, Relay                   |        |          |
| Loading Voltage         | AC110V               | AC220V   | DC24V                        | AC110V | AC220V   |
| Loading Current         | 5~25mA               | 5~12.5mA | 5~50mA                       | 5~25mA | 5~12.5mA |
| Contact Protect Circuit | Bulted in            |          |                              |        |          |
| Int'l Voltage Drop      | Below 1V             |          | Below 2.7V                   |        |          |
| Signal Lamp             | Lemp on when S/W off |          | Red LED Emitting when S/W on |        |          |

## MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION





# [AP] RO(CKD TYPE) (REED S/W TYPE)



## (AP) RO AUTO S/W

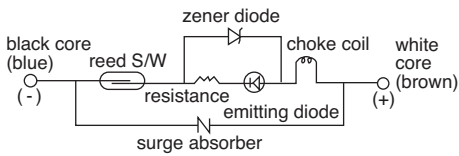
### CHARACTER & APPLICATION CONDITION

|                   |  |
|-------------------|--|
| Leakage Current   | None   |
| Lead Wire         | Oil resistant vinyl jacket VW-1                  |
| Jacket            | 4.5Ø mm(Grey, Black)                             |
| Conductor         | 0.08 × 60(coil)                                  |
| Shock/Vibration   | 30G  |
| Insulation        | Up to 50MΩ at DC500V Between case & Lead wire    |
| Endurance Voltage | For 1 Min under AC1500V Between case & Lead wire |
| Temperature Range | -10~60℃  |
| Enclosure         | IP67   |
| Response Time     | Less than 1msec                                  |

※ Standard Lead wire is 1 meter long, Longer size are available by order.

### CONNECTION DIAGRAM

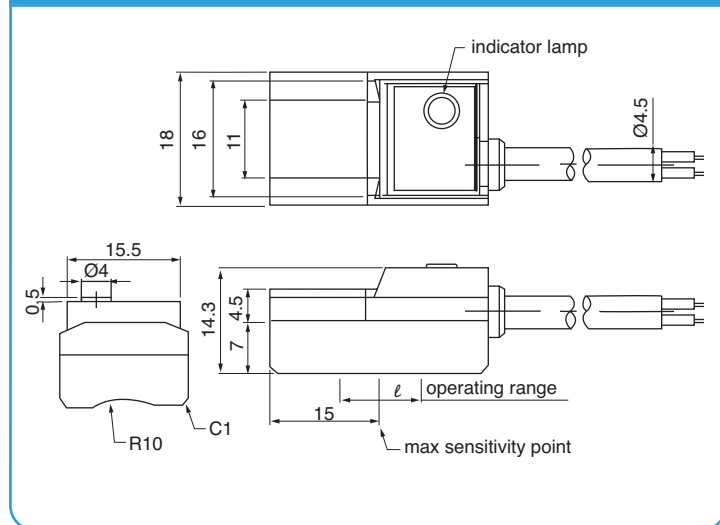
(AP) RO



### (AP) RO | SPECIFICATION

| Specification           | (AP) RO                 |        |          |
|-------------------------|-------------------------|--------|----------|
| Input Load              | PLC, Relay              |        |          |
| Load Voltage            | DC24V                   | AC110V | AC220V   |
| Load Current            | 5~40mA                  | 5~20mA | 5~12.5mA |
| Contact Protect Circuit | None                    |        |          |
| Int'l Voltage Drop      | 2.7V                    |        |          |
| Signal Lamp             | Red LED Emitting S/W ON |        |          |

### MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION

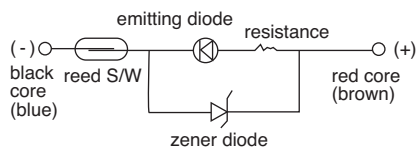


# [AP] SO(CKD TYPE) (REED S/W TYPE)



## CONNECTION DIAGRAM

(AP) SO



## (AP) SO AUTO S/W |

### CHARACTER & APPLICATION CONDITION

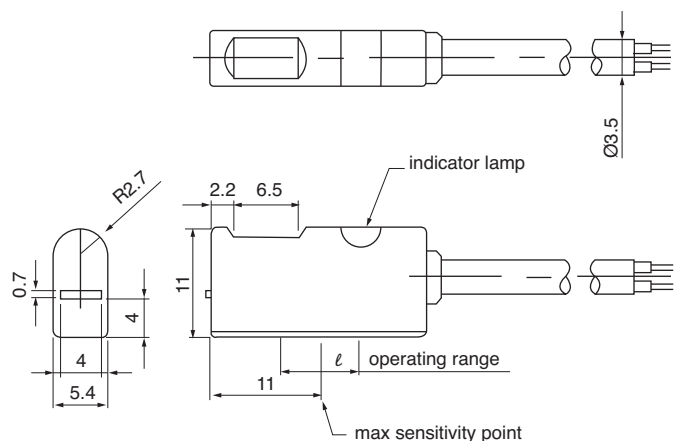
|                   |  |
|-------------------|--|
| Leakage Current   | None   |
| Lead Wire         | Oil resistant vinyl jacket VW-1                  |
| Jacket            | 3.5Ø mm(Grey, Black)                             |
| Conductor         | 0.08 × 60(coil)                                  |
| Shock/Vibration   | 30G  |
| Insulation        | Up to 50MΩ at DC500V Between case & Lead wire    |
| Endurance Voltage | For 1 Min under AC1500V Between case & Lead wire |
| Temperature Range | -10~60℃  |
| Enclosure         | IP67   |
| Response Time     | Less than 1msec                                  |

※ Standard Lead wire is 1 meter long, Longer size are available by order.

### (AP) SO | SPECIFICATION

| Specification           | (AP) SO                 |        |
|-------------------------|-------------------------|--------|
| Input Load              | PLC, Relay              |        |
| Load Voltage            | DC24V                   | AC110V |
| Load Current            | 5~40mA                  | 5~20mA |
| Contact Protect Circuit | None                    |        |
| Int'l Voltage Drop      | 2.7V                    |        |
| Signal Lamp             | Red LED Emitting S/W ON |        |

## MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION





(AP) APC AUTO S/W |

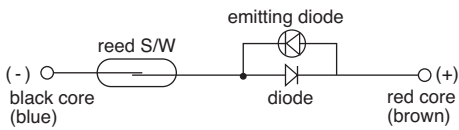
⊙ CHARACTER & APPLICATION CONDITION

|                   |   |
|-------------------|---|
| Leakage Current   | None  |
| Lead Wire         | Oil resistant vinyl jacket VW-1                       |
| Jacket            | 3.5Ø mm(Grey, Black)                                  |
| Conductor         | 0.08 × 60(coil)                                       |
| Shock/Vibration   | 30G   |
| Insulation        | Up to 50M $\Omega$ at DC500V Between case & Lead wire |
| Endurance Voltage | For 1 Min under AC1500V Between case & Lead wire      |
| Temperature Range | -10~60°C  |
| Enclosure         | IP67  |
| Response Time     | Less than 1msec                                       |

※ Standard Lead wire is 1 meter long, Longer size are available by order.

CONNECTION DIAGRAM

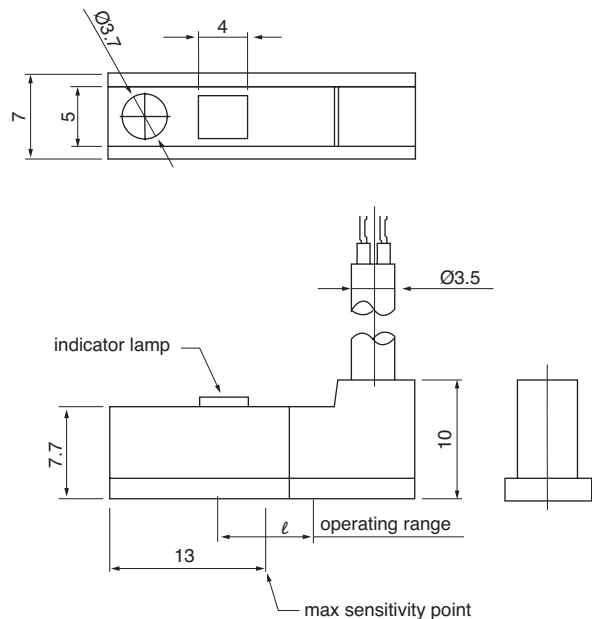
(AP) APC



⊙ (AP) APC | SPECIFICATION

| Specification           | (AP) APC                |        |
|-------------------------|-------------------------|--------|
| Input Load              | PLC, Relay              |        |
| Load Voltage            | DC24V                   | AC110V |
| Load Current            | 5~40mA                  | 5~20mA |
| Contact Protect Circuit | None                    |        |
| Int'l Voltage Drop      | 2.7V                    |        |
| Signal Lamp             | Red LED Emitting S/W ON |        |

MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION



# [AP] MA-1 (Kuroda TYPE) (REED S/W TYPE)



## (AP) MA-1 AUTO S/W |

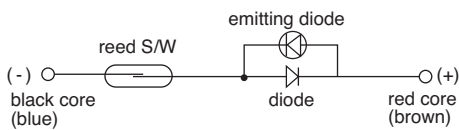
### ⊙ CHARACTER & APPLICATION CONDITION

|                   |  |
|-------------------|--|
| Leakage Current   | None   |
| Lead Wire         | Oil resistant vinyl jacket VW-1                  |
| Jacket            | 3.5Ø mm(Grey, Black)                             |
| Conductor         | 0.08 × 60(coil)                                  |
| Shock/Vibration   | 30G  |
| Insulation        | Up to 50MΩ at DC500V Between case & Lead wire    |
| Endurance Voltage | For 1 Min under AC1500V Between case & Lead wire |
| Temperature Range | -10~60℃  |
| Enclosure         | IP67   |
| Response Time     | Less than 1msec                                  |

※ Standard Lead wire is 1 meter long, Longer size are available by order.

### CONNECTION DIAGRAM

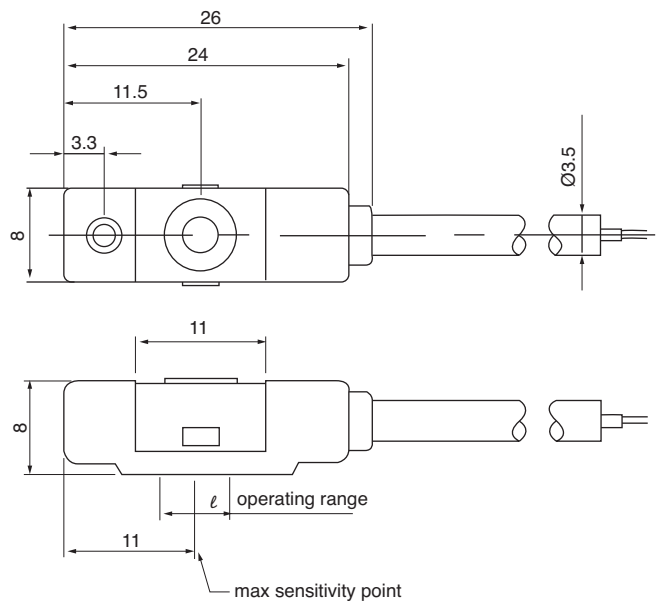
(AP) MA-1



### ⊙ (AP) MA-1 | SPECIFICATION

| Specification           | (AP) MA-1               |        |
|-------------------------|-------------------------|--------|
| Input Load              | PLC, Relay              |        |
| Load Voltage            | DC24V                   | AC110V |
| Load Current            | 5~40mA                  | 5~20mA |
| Contact Protect Circuit | None                    |        |
| Int'l Voltage Drop      | 2.7V                    |        |
| Signal Lamp             | Red LED Emitting S/W ON |        |

### MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION



# [AP] D-F8□ SERIES (Solid State Type)



## (AP) D-F8□ AUTO S/W |

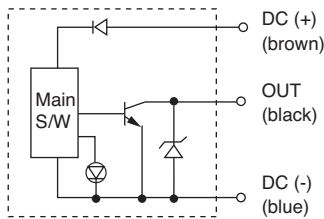
### ◎ CHARACTER & APPLICATION CONDITION

|                   |   |
|-------------------|---|
| Lead Wire         | Oil resistant vinyl jacket(VW-1, Fire retardant)    |
| Jacket            | 2.6Ø mm(Grey)                                       |
| Conductor         | 0.07 × 30(coil)                                     |
| Enclosure Rating  | IP67  |
| Shock/Vibration   | 30G   |
| Insulation        | Up to 50MΩ at DC500 Mega (Between case & Lead wire) |
| Response Time     | 1msec   |
| Temperature Range | -10~70℃   |
| Endurance Voltage | For 1 Min under AC1500V (Between case & Lead wire)  |

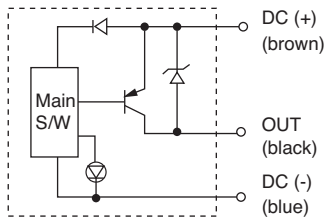
※ Standard Lead wire is 1 meter long, Longer size are available by order.

### CONNECTION DIAGRAM

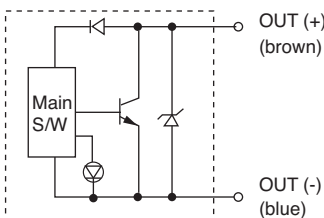
#### • (AP)D-F8N



#### • (AP)D-F8P



#### • (AP)D-F8B



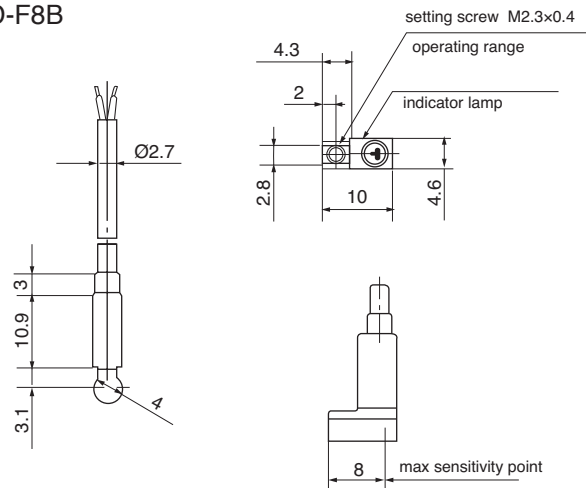
### ◎ (AP) D-F8N Series | FEATURES

| Specification      | (AP) D-F8N                | (AP) D-F8P | (AP) D-F8B    |
|--------------------|---------------------------|------------|---------------|
| Output Function    | NPN                       | PNP        | 2Wire         |
| Input Load         | IC, PLC, Relay            |            |               |
| Connection         | 3Wire                     |            | 2Wire         |
| Input Voltage      | DC4.5~28V                 |            | DC24V(10~28V) |
| Load Current       | 0~100mA                   |            | 5~50mA MAX    |
| Int'l Voltage Drop | 0.8V                      |            | 4.5V          |
| Leakage Current    | 100uA                     |            | 1mA MAX       |
| Signal Lamp        | Red LED Emitting when S/W |            |               |

※ 무접점 NC(normal close) TYPE은 주문생산합니다.

### MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION

- (AP)D-F8N
- (AP)D-F8P
- (AP)D-F8B

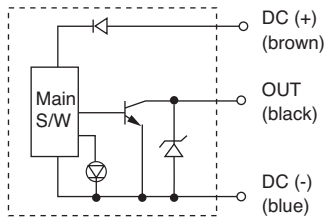


# [AP] D-F9□ SERIES (Solid State Type)

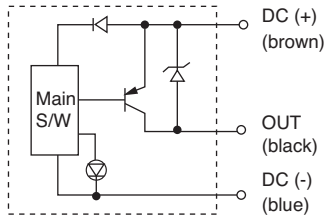


## CONNECTION DIAGRAM

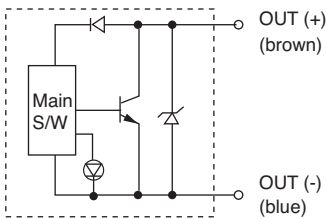
### • (AP)D-F9N(V)



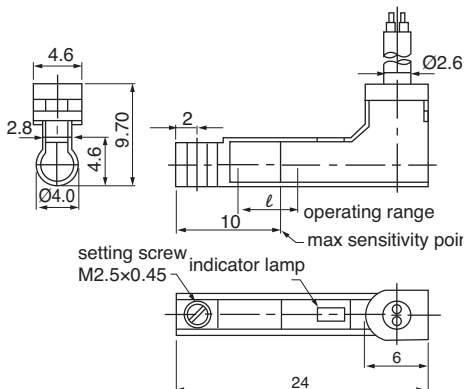
### • (AP)D-F9P(V)



### • (AP)D-F9B(V)



## MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION



## ◎ SPECIFICATION

|                   |   |
|-------------------|---|
| Lead Wire         | Oil resistant vinyl jacket(VW-1, Fire retardant)    |
| Jacket            | 2.6Ø mm(Grey)                                       |
| Conductor         | 0.07 × 30(coil)                                     |
| Enclosure Rating  | IP67  |
| Shock/Vibration   | 30G   |
| Insulation        | Up to 50MΩ at DC500 Mega (Between case & Lead wire) |
| Response Time     | 1msec   |
| Temperature Range | -10~60°C  |
| Endurance Voltage | For 1 Min under AC1500V (Between case & Lead wire)  |

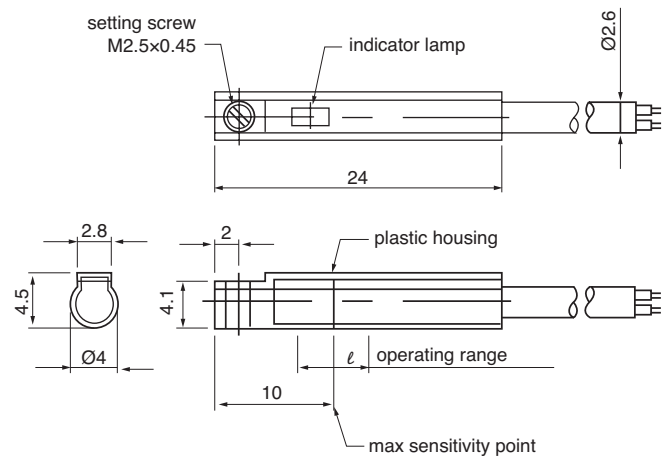
※ Standard Lead wire is 1 meter long, Longer size are available by order.

## ◎ (AP) D-F9N(V) Series | FEATURES

| Specification      | (AP) D-F9N(V)             | (AP) D-F9P(V) | (AP) D-F9B(V) |
|--------------------|---------------------------|---------------|---------------|
| Output Function    | NPN                       | PNP           | 2Wire         |
| Input Load         | IC, PLC, Relay            |               |               |
| Connection         | 3Wire                     | 2Wire         |               |
| Input Voltage      | DC4.5~28V                 | DC24V(10~28V) |               |
| Load Current       | 0~100mA                   | 5~50mA        |               |
| Int'l Voltage Drop | 0.8V                      | 4.5V          |               |
| Leakage Current    | 100uA                     | 1mA MAX       |               |
| Signal Lamp        | Red LED Emitting when S/W |               |               |

※ 무접점 NC(normal close) TYPE은 주문생산합니다.

## MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION





# [AP] D-F7 □ □ SERIES (Solid State Type)



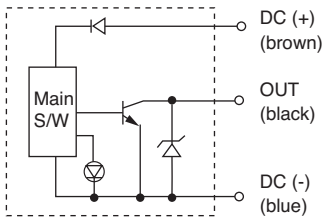
## ◎ SPECIFICATION

|                   |   |
|-------------------|---|
| Lead Wire         | Oil resistant vinyl jacket(V W-1, Fire retardant)   |
| Jacket            | 3.5Ø mm(Grey, Black)                                |
| Conductor         | 0.08 × 60(coil)                                     |
| Enclosure Rating  | IP67  |
| Shock/Vibration   | 30G   |
| Insulation        | Up to 50MΩ at DC500 Mega (Between case & Lead wire) |
| Response Time     | 1msec   |
| Temperature Range | -10~60℃   |
| Endurance Voltage | For 1 Min under AC1500V (Between case & Lead wire)  |

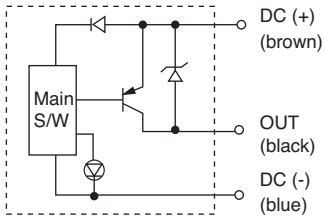
※ Standard Lead wire is 1 meter long, Longer size are available by order.

## CONNECTION DIAGRAM

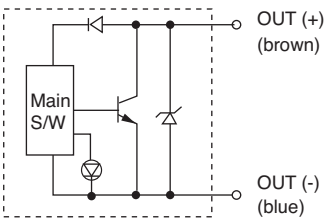
### • (AP)D-F7N(V)



### • (AP)D-F7P(V)



### • (AP)D-F7B(V)

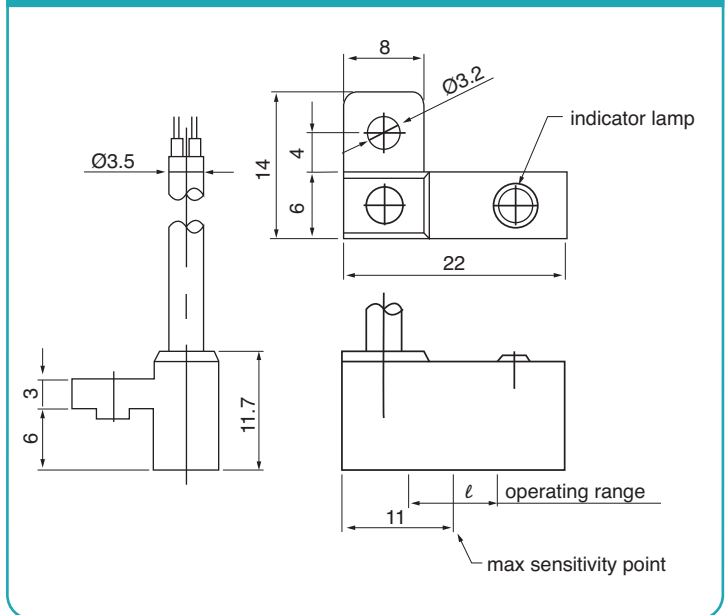


## ◎ (AP) D-F7 Series | FEATURES

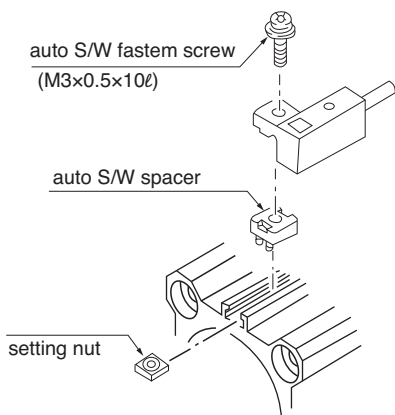
| Specification      | (AP) D-F7N(V)             | (AP) D-F7P(V) | (AP) D-F7B(V) |
|--------------------|---------------------------|---------------|---------------|
| Output Function    | NPN                       | PNP           | 2Wire         |
| Input Load         | IC, PLC, Relay            |               |               |
| Connection         | 3Wire                     | 2Wire         |               |
| Input Voltage      | DC4.5~28V                 |               | DC24V(10~28V) |
| Load Current       | 0~100mA                   |               | 5~50mA MAX    |
| Int'l Voltage Drop | 0.8V                      |               | 4.5V          |
| Leakage Current    | 100uA                     |               | 1mA MAX       |
| Signal Lamp        | Red LED Emitting when S/W |               |               |

※ 무접점 NC(normal close) TYPE은 주문생산합니다.

## MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION



## AUTO S/W INSTALL/REMOVE

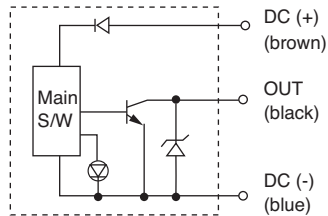


# [AP] D-H7□ SERIES (Solid State Type)

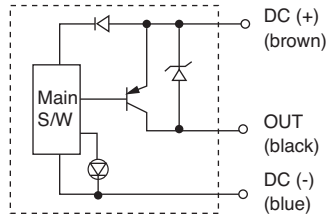


## CONNECTION DIAGRAM

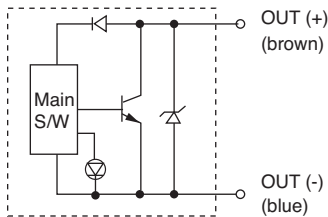
### • (AP)D-H7A1



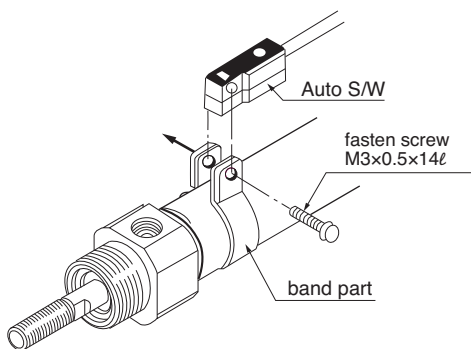
### • (AP)D-H7A2



### • (AP)D-H7B



## AUTO S/W INSTALL/REMOVE



## ◎ SPECIFICATION

|                   |   |
|-------------------|---|
| Lead Wire         | Oil resistant vinyl jacket(VW-1, Fire retardant)    |
| Jacket            | 3.5Ø mm(Grey, Black)                                |
| Conductor         | 0.08 × 60(coil)                                     |
| Enclosure Rating  | IP67  |
| Shock/Vibration   | 30G   |
| Insulation        | Up to 50MΩ at DC500 Mega (Between case & Lead wire) |
| Response Time     | 1msec   |
| Temperature Range | -10~60℃   |
| Endurance Voltage | For 1 Min under AC1500V (Between case & Lead wire)  |

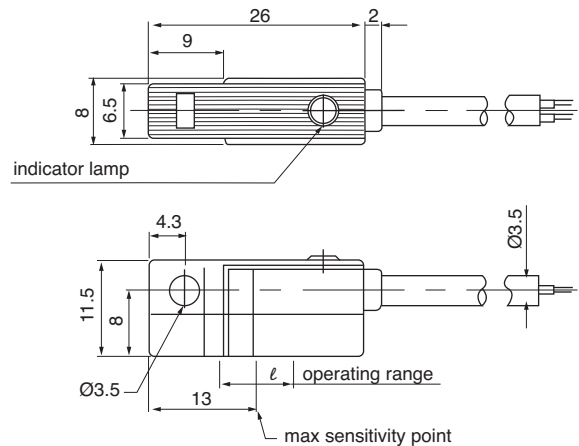
※ Standard Lead wire is 1 meter long, Longer size are available by order.

## ◎ (AP) D-H7A Series | FEATURES

| Specification      | (AP) D-H7A1               | (AP) D-H7A2 | (AP) D-H7B    |
|--------------------|---------------------------|-------------|---------------|
| Output Function    | NPN                       | PNP         | 2Wire         |
| Input Load         | IC, PLC, Relay            |             |               |
| Connection         | 3Wire                     |             | 2Wire         |
| Input Voltage      | DC4.5~28V                 |             | DC24V(10~28V) |
| Load Current       | 0~100mA                   |             | 5~50mA MAX    |
| Int'l Voltage Drop | 0.8V                      |             | 4.5V          |
| Leakage Current    | 100uA                     |             | 1mA MAX       |
| Signal Lamp        | Red LED Emitting when S/W |             |               |

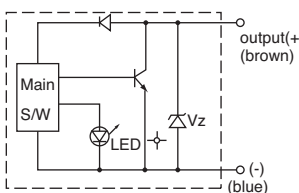
※ 무접점 NC(normal close) TYPE은 주문생산합니다.

## MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION

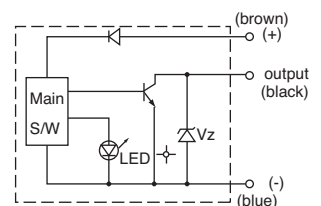


## CONNECTION DIAGRAM

### SOLID STATE 2 WIRE



### SOLID STATE 3 WIRE



# [AP] D-Y59□ (Solid State Type)



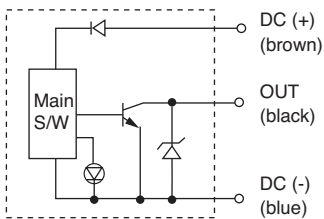
## ◎ SPECIFICATION

|                   |   |
|-------------------|---|
| Lead Wire         | Oil resistant vinyl jacket(VW-1, Fire retardant)    |
| Jacket            | 3.5Ø mm(Grey, Black)                                |
| Conductor         | 0.08 × 60(coil)                                     |
| Enclosure Rating  | IP67  |
| Shock/Vibration   | 30G   |
| Insulation        | Up to 50MΩ at DC500 Mega (Between case & Lead wire) |
| Response Time     | 1msec   |
| Temperature Range | -10~60℃   |
| Endurance Voltage | For 1 Min under AC1500V (Between case & Lead wire)  |

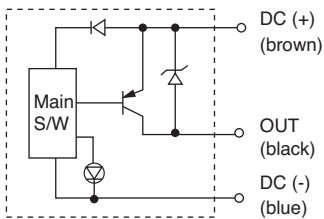
※ Standard Lead wire is 1 meter long, Longer size are available by order.

## CONNECTION DIAGRAM

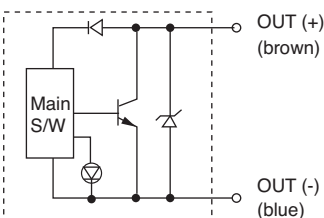
### • (AP)D-Y59A



### • (AP)D-Y59P



### • (AP)D-Y59B

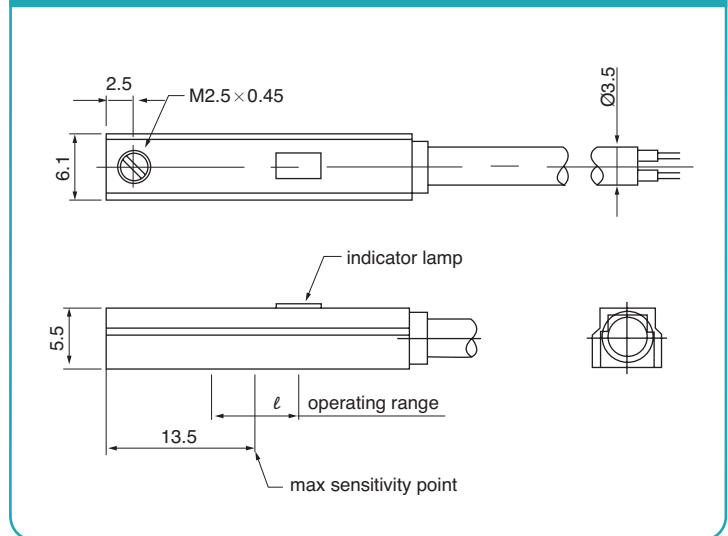


## ◎ (AP) D-Y59A Series | FEATURES

| Specification      | (AP) D-Y59A               | (AP) D-Y59P | (AP) D-Y59B   |
|--------------------|---------------------------|-------------|---------------|
| Output Function    | NPN                       | PNP         | 2Wire         |
| Input Load         | IC, PLC, Relay            |             |               |
| Connection         | 3Wire                     |             | 2Wire         |
| Input Voltage      | DC4.5~28V                 |             | DC24V(10~28V) |
| Load Current       | 0~100mA                   |             | 5~50mA MAX    |
| Int'l Voltage Drop | 0.8V                      |             | 4.5V          |
| Leakage Current    | 100uA                     |             | 1mA MAX       |
| Signal Lamp        | Red LED Emitting when S/W |             |               |

※ 무접점 NC(normal close) TYPE은 주문생산합니다.

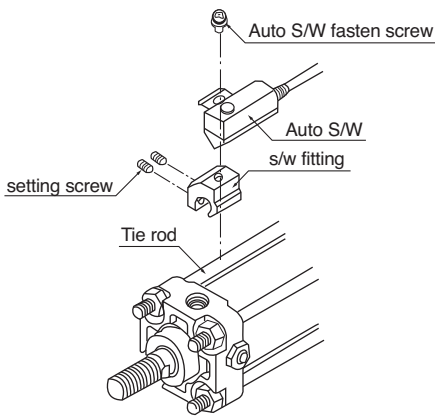
## MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION



# [AP] D-□59 SERIES (Solid State Type)

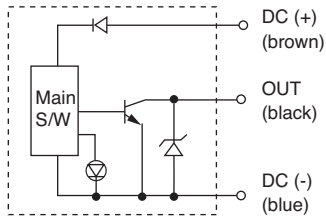


## AUTO S/W INSTALL/REMOVE

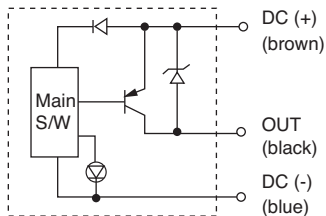


## CONNECTION DIAGRAM

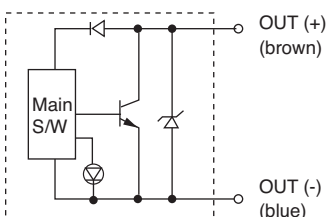
### • (AP)D-F59A



### • (AP)D-F59P



### • (AP)D-59B



## ◎ SPECIFICATION

|                   |   |
|-------------------|---|
| Lead Wire         | Oil resistant vinyl jacket(VW-1, Fire retardant)    |
| Jacket            | 3.5∅ mm(Grey, Black)                                |
| Conductor         | 0.08 × 60(coil)                                     |
| Enclosure Rating  | IP67  |
| Shock/Vibration   | 30G   |
| Insulation        | Up to 50MΩ at DC500 Mega (Between case & Lead wire) |
| Response Time     | 1msec   |
| Temperature Range | -10~60℃   |
| Endurance Voltage | For 1 Min under AC1500V (Between case & Lead wire)  |

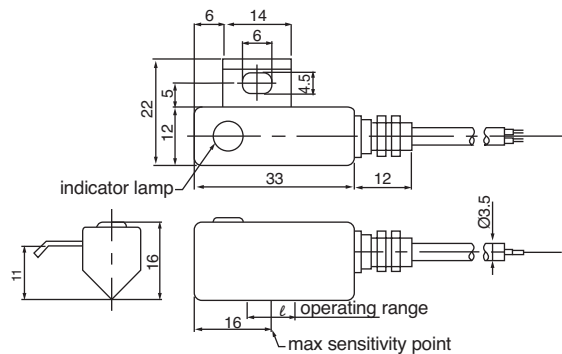
※ Standard Lead wire is 1 meter long, Longer size are available by order.

## ◎ (AP) D-F59, 1H Series | FEATURES

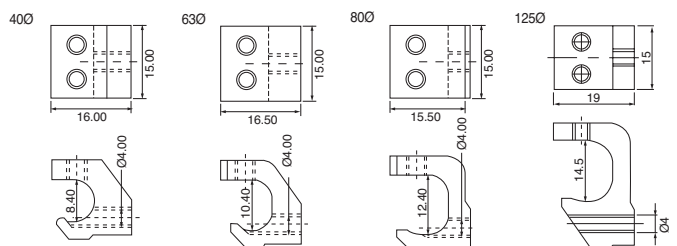
| Specification      | (AP) D-F59                | (AP) D-F59P | (AP) D-F59B   |
|--------------------|---------------------------|-------------|---------------|
| Output Function    | NPN                       | PNP         | 2Wire         |
| Input Load         | IC, PLC, Relay            |             |               |
| Connection         | 3Wire                     |             | 2Wire         |
| Input Voltage      | DC4.5~28V                 |             | DC24V(10~28V) |
| Load Current       | 0~100mA                   |             | 5~50mA MAX    |
| Int'l Voltage Drop | 0.8V                      |             | 4.5V          |
| Leakage Current    | 100uA                     |             | 1mA MAX       |
| Signal Lamp        | Red LED Emitting when S/W |             |               |

※ 무점점 NC(normal close) TYPE은 주문생산합니다.

## MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION



## FITTING BRACKETS ON TIE TYPE(AP) D-F59A, D-F59P, D-59B



# [AP] R2/R3(CKD TYPE) (Solid State Type)



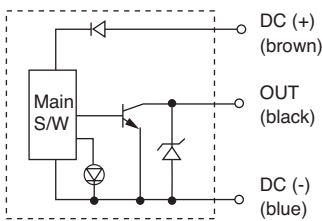
## ◎ SPECIFICATION

|                   |   |
|-------------------|---|
| Lead Wire         | Oil resistant vinyl jacket(VW-1, Fire retardant)    |
| Jacket            | 4.5Ø mm(Grey, Black)                                |
| Conductor         | 0.08 × 60(coil)                                     |
| Enclosure Rating  | IP67  |
| Shock/Vibration   | 30G   |
| Insulation        | Up to 50MΩ at DC500 Mega (Between case & Lead wire) |
| Response Time     | 1msec   |
| Temperature Range | -10~60℃   |
| Endurance Voltage | For 1 Min under AC1500V (Between case & Lead wire)  |

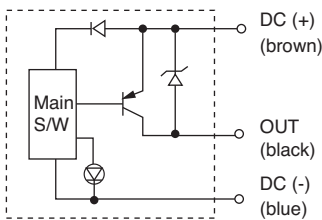
※ Standard Lead wire is 1 meter long, Longer size are available by order.

## CONNECTION DIAGRAM

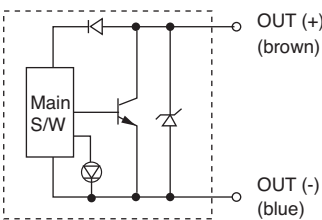
### • (AP)R3



### • (AP)R2



### • (AP)R5

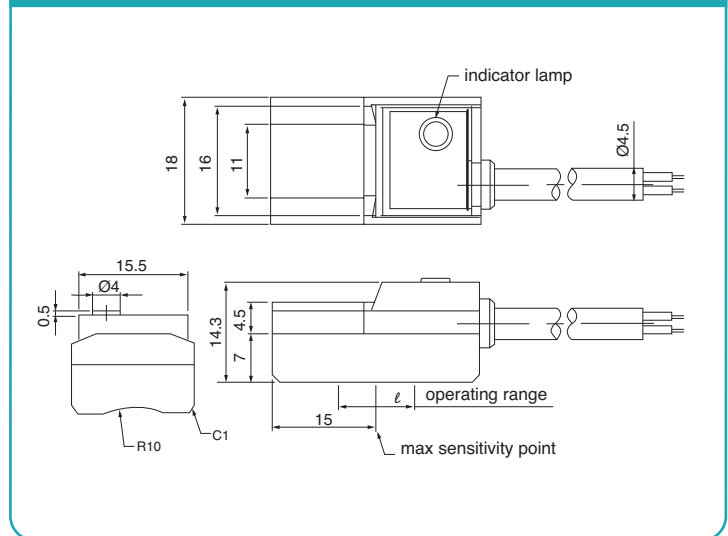


## ◎ (AP)R3, (AP)R2, (AP)R5 Series | FEATURES

| Specification      | (AP) R03                  | (AP) R02 | (AP) R05      |
|--------------------|---------------------------|----------|---------------|
| Output Function    | NPN                       | PNP      | 2Wire         |
| Input Load         | IC, PLC, Relay            |          |               |
| Connection         | 3Wire                     |          | 2Wire         |
| Input Voltage      | DC4.5~28V                 |          | DC24V(10~28V) |
| Load Current       | 0~100mA                   |          | 5~50mA MAX    |
| Int'l Voltage Drop | 0.8V                      |          | 4.5V          |
| Leakage Current    | 100uA                     |          | 1mA MAX       |
| Signal Lamp        | Red LED Emitting when S/W |          |               |

※ 무접점 NC(normal close) TYPE은 주문생산합니다.

## MAX SENSITIVITY POINT / OPERATING RANGE / DIMENSION



AGENCY



**SAEWON ELECTRONICS CO., LTD**

43, Baegyangsunhwan-ro 35beon-gil, Busanjin-Gu, Busan, Korea

TEL. 82-51-893-7916, 7918

FAX. 82-51-894-2482

<http://www.autoswitches.co.kr>

E-mail: [saewon@autoswitches.co.kr](mailto:saewon@autoswitches.co.kr)