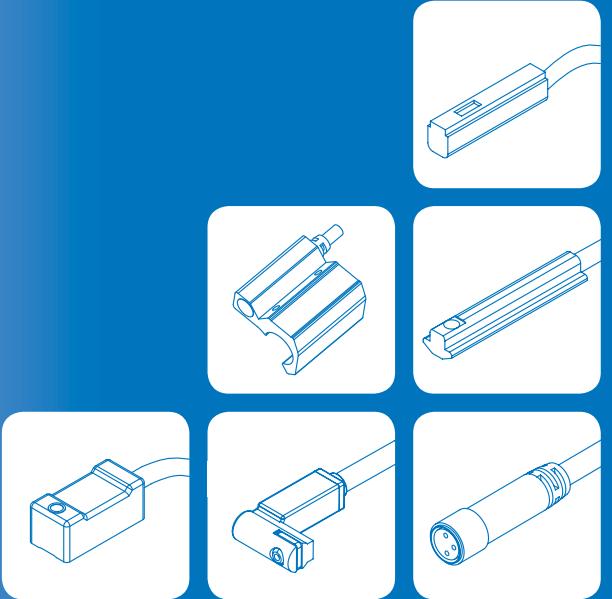
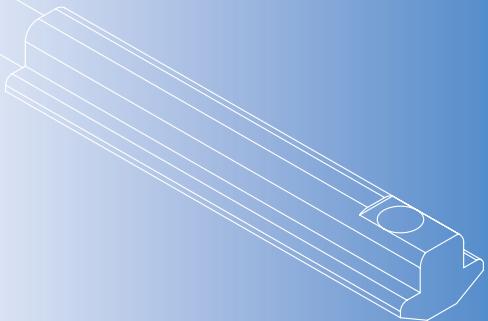


# AUXILIARY EQUIPMENT



## SENSOR SWITCH

**RC\***      RCA.....5-2

RCB.....5-4

RCD .....5-5

RCE / RCE1 .....5-6

RCI .....5-7

**RD\***      RDEP .....5-9

RDF .....5-10

RDKP .....5-11

**R\***      RH .....5-12

RK .....5-13

RT .....5-14

**LN\***      LN01A.....5-15

LN01G.....5-16

LN01P .....5-17

LN32H.....5-18

LN40R.....5-19

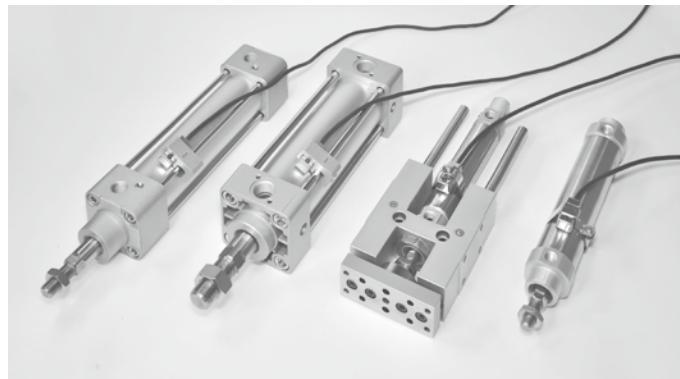
## CIRCULAR CONNECTOR

**M8\*** .....5-20

Rotary Actuator	Clamp Cylinder	Gripper	Electric Actuator	Auxiliary Equipment
				Hydraulic Cylinder

# RCA series

## SENSOR SWITCH



### Order example

RCA — □



MODEL

C: Reed switch  
D: Without contact  
N: NPN  
P: PNP

WIRE LENGTH

Blank: L=2000mm  
**1M:** L=1000mm  
**QD:** M8 3PIN connector  
**EQD:** M8 3PIN connector

\* Special order is available.

### Switch holder / band

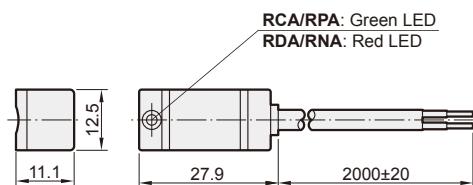
HV1

SWITCH HOLDER

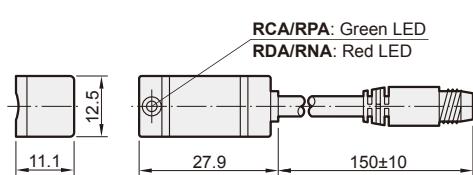
**HA\***: for MCQA, MCQV  
**HV\***: for MCQA, MCQV, MCQV2, MCQV2L, MCBQV, MCBQV2, MCQN  
**HS\***: for MSB\*-050  
**BGA\***: for MCKG\*  
**PN-A\***: for MCKA  
**PM\***: for MCQA, MCQV

### Dimension

#### RCA/RDA/RNA/RPA



#### RCA-QD/RDA-QD/ RNA-QD/RPA-QD



### Specification

Model	RCA	RDA	RNA	RPA						
Wiring method	2 wire			3 wire						
Switching logic	SPST N.O.			Solid state output, normally open						
Switch type	Reed switch	Without contact	NPN current sinking	PNP current sourcing						
Operating voltage	5~240V DC/AC	5~30V DC								
Switching current	100mA max.	50mA max.	200mA max.							
Switching rating (*1)	10W max.	1.5W max.	6W max.							
Current consumption	—		15 mA@24V DC max.							
Voltage drop	3.5V max.	3.7V max.	1.5V max.							
Leakage current	—	0.1mA max.	0.01mA max.							
Indicator	Green LED	Red LED		Green LED						
Cable	ø4, 2C, PVC		ø4, 3C, PVC							
Temperature range	-10~+70°C (No freezing)									
Shock (*2)	30G	50G								
Vibration (*3)	9G									
Enclosure classification	IEC 60529 IP67									
Protection circuit (*4)	1	3,4	2,3,4							
Weight	46 g (2m cable)									
Connect diagram										

\*1. Warning: Never exceed rating (watt=voltage×amperage). Permanent damage to sensor will occur.

\*2. Sin wave / X.Y.Z. 3 directions / 3 times each direction / 11ms each time.

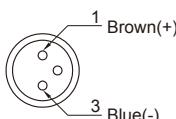
\*3. Double amplitude 1.5mm / 10Hz~55Hz~10Hz(Sweep 1min) / X.Y.Z. 3 directions / 1 hour each time.

\*4. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression

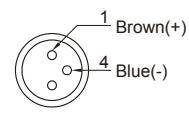
\*5. Caution for safety please refer to page 8-8~9.

### Wiring of the QD

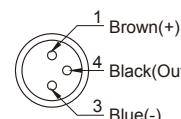
• 2 wire QD wiring



• 2 wire EQD wiring



• 3 wire QD wiring



# RCA Assembling style

## SENSOR SWITCH



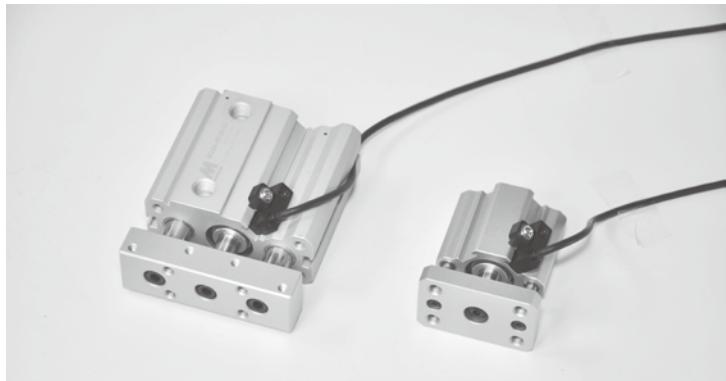
### Assembling style

Cylinder type	MCQA					MCQV2 / MCBQV2					MCQV				
Mounting clamps	Hold					Hold									
Order	HV2	HV4	PM14	PM16	HA5	HV1	HV2	HV3	HV4	PM16	HA5V				
Cylinder tube I.D.	40,50,63	80,100	125	150	200	32,40	50,63	80,100	125	160	200				
Pictures		<b>HA*</b> 		<b>HV*</b> 		<b>PM*</b> 									

Cylinder type	MCBV	MCQV2L			MCQN			MCKG*		MCKA	MSB* Ø50
Mounting clamps	Hold	Hold			Hold			Band		Band	Hold
Order	HV4	HV2	HV3	HV1	HV2	HV3	BGA50	BGA63	PN-A40	HS	
Cylinder tube I.D.	125	63	80	40	50,63	80,100	50	63	40	50	
Pictures		<b>HV*</b> 									

# RCB series

## SENSOR SWITCH



### Order example

RCB — □



#### MODEL

C: Reed switch  
N: NPN  
P: PNP

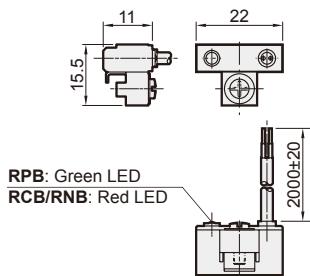
#### WIRE LENGTH

Blank: L=2000mm  
1M: L=1000mm  
QD: M8 3PIN connector  
EQD: M8 3PIN connector

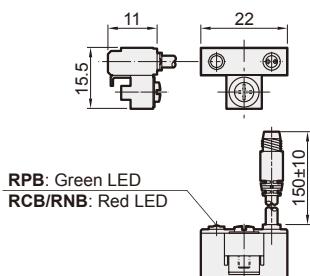
\* Special order is available.

### Dimension

#### RCB/RNB/RPB



#### RCB-QD/RNB-QD/RPB-QD

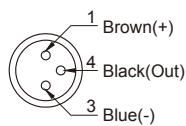
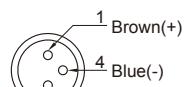
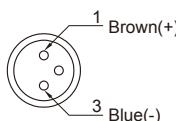


### Wiring of the QD

• 2 wire  
QD wiring

• 2 wire  
EQD wiring

• 3 wire  
QD wiring



### Specification

Model	RCB	RNB	RPB
Wiring method	2 wire	3 wire	
Switching logic	SPST normally open	Solid state output, normally open	
Switch Type	Reed switch	NPN current sinking	PNP current sourcing
Operating voltage	5~240V DC/AC	5~30V DC	
Switching current	100mA max.	200mA max.	
Switching rating <sup>(*)1</sup>	10W max.	6W max.	
Current consumption	—	22 mA@24V DC max.	20 mA@24V DC max.
Voltage drop	3.5V max.	0.5V max.	
Leakage current	—	0.01mA max.	
Indicator	Red LED	Red LED	Green LED
Cable	ø3.3, 2C, PVC	ø3.3, 3C, PVC	
Temperature range	-10~+70°C (No freezing)		
Shock <sup>(*)2</sup>	30G	50G	
Vibration <sup>(*)3</sup>	9G		
Enclosure classification	IEC 60529 IP67		
Protection circuit <sup>(*)4</sup>	1	3,4	
Weight	33 g (2m cable)		
Connect diagram			

\*1. Warning: Never exceed rating (watt=voltage×amperage). Permanent damage to sensor will occur.

\*2. Sin wave / X.Y.Z. 3 directions / 3 times each direction / 11ms each time.

\*3. Double amplitude 1.5mm / 10Hz~55Hz~10Hz(Sweep 1min) / X.Y.Z. 3 directions / 1 hour each time.

\*4. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression

\*5. Caution for safety please refer to page 8~9 .

### Assembling style

Cylinder type	MCJA, MCJQ, MCJQ2, MCGA, MCGJ, MCDA, MCRA, MCKB, MSB*, MSLD
Mounting clamp	

# RCD series

## SENSOR SWITCH



### Order example

RCD — □



MODEL

C: Reed switch  
N: NPN  
P: PNP

WIRE LENGTH

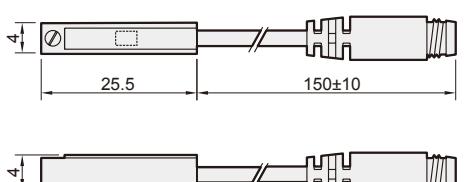
Blank: L=2000mm  
1M: L=1000mm  
QD: M8 3PIN connector  
EQD: M8 3PIN connector  
\* Special order is available.

### Dimension

#### RCD/RND/RPD



#### RCD-QD/RND-QD/RPD-QD

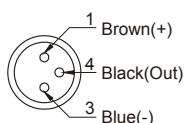
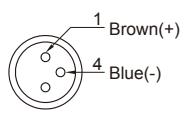
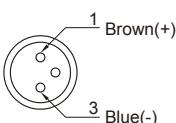


### Wiring of the QD

• 2 wire  
QD wiring

• 2 wire  
EQD wiring

• 3 wire  
QD wiring



### Specification

Model	RCD	RND	RPD
Wiring method	2 wire	3 wire	
Switching logic	SPST normally open	Solid state output, normally open	
Switch Type	Reed switch	NPN current sinking	PNP current sourcing
Operating voltage	5~120V DC/AC	5~30V DC	
Switching current	100mA max.	200mA max.	
Contact rating (*1)	10W max.	6W max.	
Current consumption	—	8 mA@24V DC Max	
Voltage drop	3.5V max.	1V@200mA Max	
Leakage current	—	0.01mA Max	
Indicator	Red LED	Red LED	Green LED
Cable	ø2.8, 2C, PUR	ø2.8, 3C, PUR	
Temperature range	-10~+70°C (No freezing)		
Shock (*2)	30G	50G	
Vibration (*3)	9 G		
Enclosure classification	IEC 60529 IP67		
Protection circuit (*4)	1	2, 3, 4	
Weight	20 g (2m cable)		
Connect diagram			

\*1. Warning: Never exceed rating (watt=voltage×amperage). Permanent damage to sensor will occur.

\*2. Sin wave / X.Y.Z. 3 directions / 3 times each direction / 11ms each time.

\*3. Double amplitude 1.5mm / 10Hz~55Hz~10Hz(Sweep 1min) / X.Y.Z. 3 directions / 1 hour each time.

\*4. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression

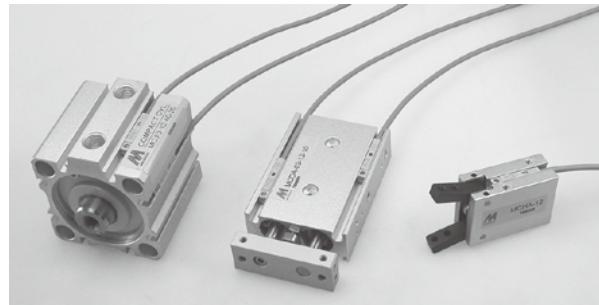
\*5. Caution for safety please refer to page 8-8~9.

### Assembling style

Cylinder type	MCDB, MCRPMS, MCRB
Mounting clamp	

# RCE / RCE1 series

## SENSOR SWITCH



### Order example

RCE1 - □

#### MODEL

RCE:Reed Switch

RCE1: Reed Switch

RNE:PNP

RPE:PNP

RDE:Non-contact

RDE-D:Non-contact, two indicators

#### WIRE LENGTH

Blank: L=2000mm

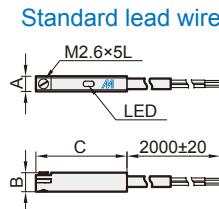
1M: L=1000mm

QD: M8 3PIN connector

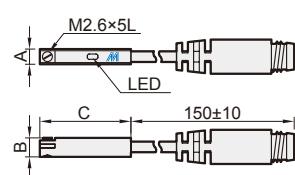
EQD: M8 3PIN connector

\* Special order is available.

### Dimension



#### QD connector



MODEL	A	B	C
RCE / RDE / RDE-D	4	5	24
RCE1 / RNE / RPE	4.1	4.65	22

### Specification

Model	RCE	RCE1	RDE	RDE-D	RNE	RPE			
Wiring method	2 wire					3 wire			
Switching logic	SPST normally open					Solid state output, normally open			
Switch Type	Reed switch		Non-contact		NPN current sinking	PNP current sourcing			
Operating voltage	5~220V DC/AC	5~120V DC/AC	10~28V DC		5~30V DC				
Switching current	50mA max.	100mA max.	50mA max.	80mA max.	500mA max.				
Switching rating(*1)	10W max.		1.5W max.	2W max.	1.5W max.				
Current consumption	—					10 mA@24V DC max. 12 mA@24V DC max.			
Voltage drop	3.5V max.			4V max.	0.5V max.	1.5V max.			
Leakage current	—	0.1mA max.	1mA max.		0.01mA max.				
Indicator (LED)	Red		Red/Green	Red	Green				
Cable	ø2.8,2C,PUR	ø2.8,2C,PU	ø2.8,2C,PUR		ø3.3, 3C, PU				
Temperature range	-10~+70°C (No freezing)								
Shock (*2)	30G		50G						
Vibration (*3)	9G								
Enclosure classification	IEC 60529 IP67								
Protection circuit (*4)	1		3,4	2,3,4	3,4				
Weight	20 g (2m cable)								
Connect diagram									

\*1. Warning: Never exceed rating (watt=voltage×amperage). Permanent damage to sensor will occur.

\*2. Sin wave / X.Y.Z. 3 directions / 3 times each direction / 11ms each time.

\*3. Double amplitude 1.5mm / 10Hz~55Hz~10Hz(Sweep 1min) / X.Y.Z. 3 directions / 1 hour each time.

\*4. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression

\*5. Caution for safety please refer to the page 8-8~9.

# RCI series

## SENSOR SWITCH



Rotary Actuator

Clamp Cylinder

Gripper

Electric Actuator

Auxiliary Equipment

Hydraulic Cylinder



### Order example

RCI - N - □

MODEL

RCI: Reed Switch  
RCI-N: Reed Switch (NPN)  
RCI-P: Reed Switch (PNP)  
RNI: NPN  
RPI: PNP

WIRE LENGTH

Blank: L=2000mm  
1M: L=1000mm  
QD: M8 3PIN connector  
EQD: M8 3PIN connector  
\* Special order is available.

### Assembling style

Cylinder type	MCQI2, MCKQI2, MCBQI2, MCJI, MCGI, MGTB, MGTU, MGTX, METB
Mounting clamp	

### Specification

Model	RCI	RCI-N	RCI-P	RNI	RPI
Wiring	2 wire	3 wire		3 wire	
Switching logic		Normal open			
Switch Type	Reed switch		NPN current sinking	PNP current sourcing	
Voltage range	5~240V DC/AC	10~30V DC		10~30V DC	
Current range	100mA max.	500mA max.		200mA max.	
Contact rating(*1)	10W max.			6W max.	
Current consumption	—	5 mA@24V DC max.		20 mA@24V DC max.	
Voltage drop	3.5V max.	0.1V@100mA max.		1.5V max.	
Leakage current	—	—	—	0.05mA max.	
Indicator	Red LED	Yellow LED	Red LED	Yellow LED	
Cable	ø3.2C,PUR	ø3.3C,PUR		ø3.3C,PUR	
Temperature		-10~+70°C (No freezing)			
Shock (*2)		30G		50G	
Vibration (*3)			9G		
Protection classification		IEC 60529 IP67			
Protection circuit (*4)		1		2,3,4	
Weight		23 g (2m cable)			
Connect diagram					

\*1. Warning: Never exceed rating (watt=voltage×amperage). Permanent damage to sensor will occur.

\*2. Sin wave / X.Y.Z. 3 directions / 3 times each direction / 11ms each time.

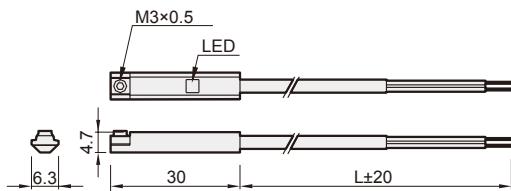
\*3. Double amplitude 1.5mm / 10Hz~55Hz~10Hz(Sweep 1min) / X.Y.Z. 3 directions / 1 hour each time.

\*4. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression

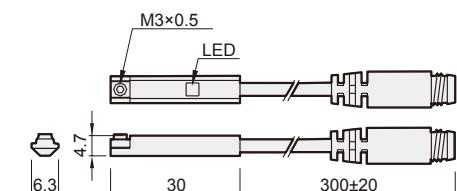
\*5. Caution for safety please refer to page 8-8~9.

## Dimension

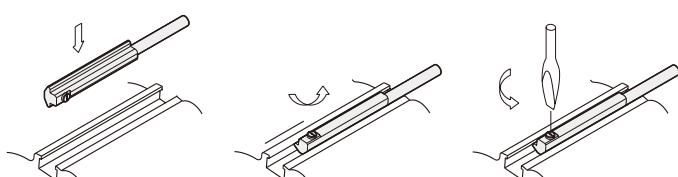
RCI-\*/RNI/RPI



RCI-\*-QD/RNI-QD/RPI-QD

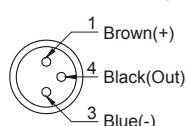
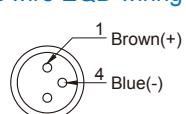
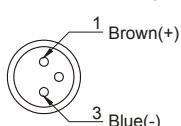


## Mounting



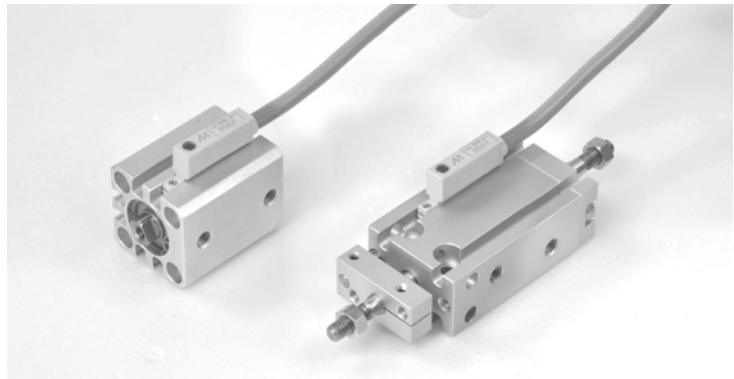
## Wiring of the QD

- 2 wire QD wiring
- 2 wire EQD wiring
- 3 wire QD wiring



# RDEP series

## SENSOR SWITCH



### Application environment

- **RDEP** can be applied in the strong magnetic field environment such as automotive manufacturing or areas near welding machine.
- When **RDEP** detects the magnetic AC field (50 or 60Hz) it will keep the status of output and will not be effected.

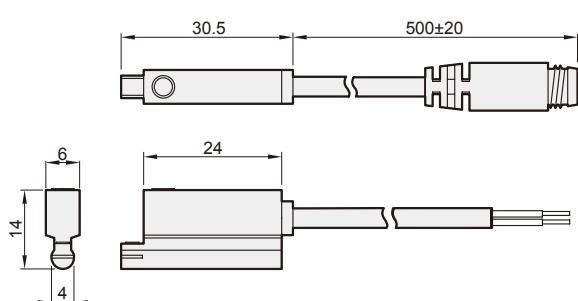
### Order example

**RDEP** — □



MODEL    WIRE LENGTH  
Blank: 3000mm  
QD: M12 4PIN connector

### Dimension



### Specification

Model	<b>RDEP</b>
Wiring method	2 wire
Switching logic	Solid state output, normally open
Switch type	Current sourcing
Operating voltage	10~28V DC
Switching current	5~50mA max.
Switching rating (*1)	1.5W max.
Current consumption	—
Voltage drop	5V max.
Leakage current	1mA max.
Indicator	Unstable: Red LED ; Stable: Green LED
Cable	ø4.8, 2C, PVC
Temperature range	-10°C~+60°C (No freezing)
Shock (*2)	50G
Vibration (*3)	9G
Enclosure classification	IEC 60529 IP67
Protection circuit (*4)	3 , 4
Weight	100 g (3m cable)
Connect diagram	

\*1. Warning: Never exceed rating (watt=voltage×amperage). Permanent damage to sensor will occur.

\*2. Sin wave / X.Y.Z. 3 directions / 3 times each direction / 11ms each time.

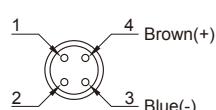
\*3. Double amplitude 1.5mm / 10Hz~55Hz~10Hz(Sweep 1min) / X.Y.Z. 3 directions / 1 hour each time.

\*4. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression

\*5. Caution for safety please refer to page 8-8~9.

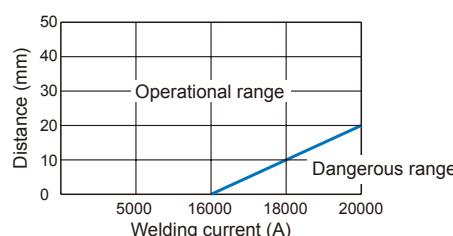
### Wiring of the QD

- 2 wire



### Weld-field immune

The operational distance can be 0mm between sensor and welding gun (welding conductor or cable) when the welding current less than 16000A.



### Assembling style

Cylinder type	MCJA, MCJQ, MCKJQ, MCFA, MCGB, MCGS, MCGD, MCGJ, MCG3, MCDA, MCSS, MCSH, MCSQ, MCRA, MCKB, MCKC, MSB*, MSL*
Mounting clamp	

# RDF series

## SENSOR SWITCH



### Order example

**RDFV — □**



**AUTO SWITCH TYPE**  
Blank: Straight cable  
MODEL V: Angle cable  
D: 2 wire (solid state type)  
N: 3 wire (NPN current sinking)  
P: 3 wire (PNP current sourcing)

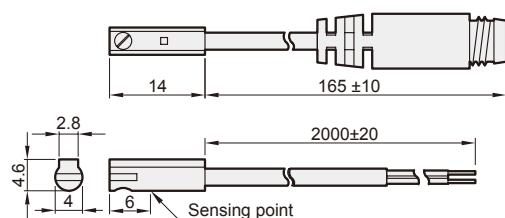
**WIRE LENGTH**  
Blank: L=2000mm  
**1M:** L=1000mm  
**QD:** M8 3PIN connector  
**EQD:** M8 3PIN connector

\* Special order is available.

### Dimension

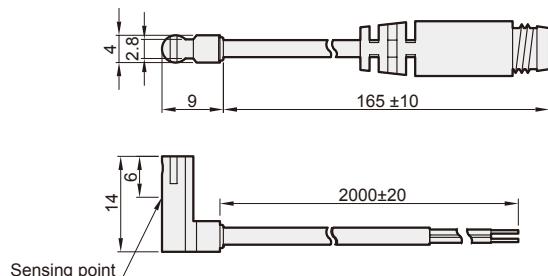
#### RDF / RNF / RPF

#### RDF-QD / RNF-QD / RPF-QD



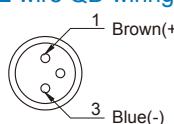
#### RDFV / RNFV / RPFV

#### RDFV-QD / RNFV-QD / RPFV-QD

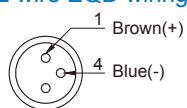


### Wiring of the QD

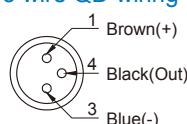
- 2 wire QD wiring



- 2 wire EQD wiring



- 3 wire QD wiring



### Specification

Model	RDF / RDFV	RNF / RNFV	RPF / RPFV
Wiring method	2 wire	3 wire	
Switching logic		Solid state output, Normally open	
Switch Type	—	NPN current sinking	PNP current sourcing
Operating voltage	10~28V DC	4.5~28V DC	
Switching current	4~20mA max.	50mA max.	
Contact rating(*1)	0.6W max.	1.5W max.	
Current consumption	—	10mA @ 24V max.	
Voltage drop	3.5V max.	0.5V @ 50mA max.	
Leakage current	0.8mA max.	0.01mA max.	
Indicator		Red LED	
Cable	ø2.6, 2C, PVC	ø2.6, 3C, PVC	
Temperature range		-10°C~+70°C (No freezing)	
Shock (*2)		50G	
Vibration (*3)		9G	
Enclosure classification		IEC 60529 IP67	
Protection circuit (*4)	4	3,4	
Weight	12.8 g (1m cable) / 23.8 g (2m cable)		
Connect diagram			

\*1. Warning: Never exceed rating (watt=voltage×amperage). Permanent damage to sensor will occur.

\*2. Sin wave / X.Y.Z. 3 directions / 3 times each direction / 11ms each time.

\*3. Double amplitude 1.5mm / 10Hz~55Hz~10Hz(Sweep 1min) / X.Y.Z. 3 directions / 1 hour each time.

\*4. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression

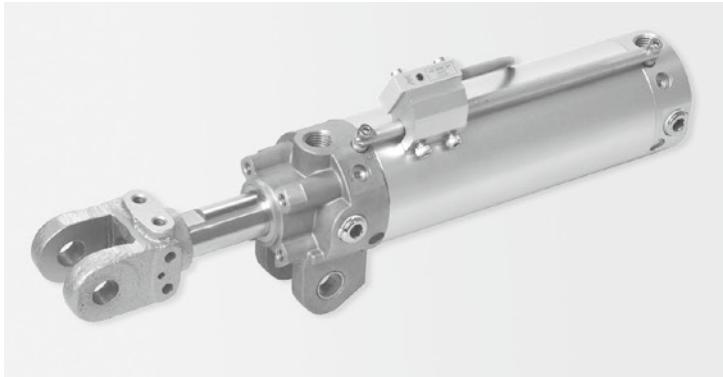
\*5. Caution for safety please refer to the page 8-8~9.

### Assembling style

Cylinder type	MCJU, MCFB, MCMJP, MCDJ, MCHD, MCHU, MCHG2, MCHX, MCRQ, MCRQ-S, MCHJ, MCHS, MCHT
Mounting clamp	

# RDKP series

## SENSOR SWITCH



### Application environment

- RDKP can be applied in the strong magnetic field environment such as automotive manufacturing or areas near welding machine.
- When RDKP detects the magnetic AC field (50 or 60Hz) it will keep the status of output and will not be effected.

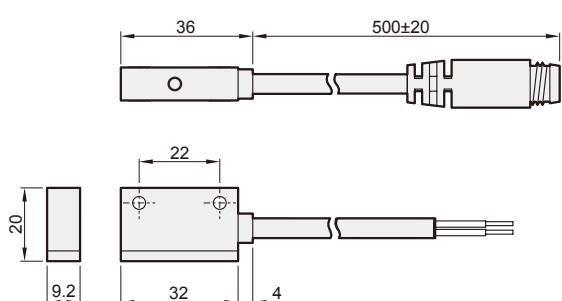
### Order example

RDKP — □

—  
—

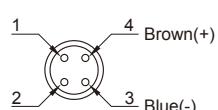
MODEL      WIRE LENGTH  
Blank: 3000mm  
QD: M12 4PIN connector

### Dimension



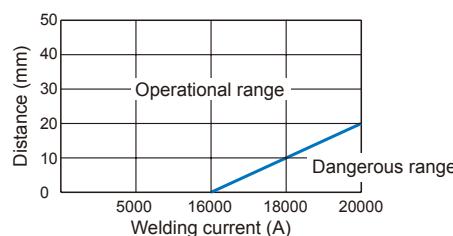
### Wiring of the QD

- 2 wire



### Weld-field immune

The operational distance can be 0mm between sensor and welding gun (welding conductor or cable) when the welding current less than 16000A.



### Specification

Model	RDKP
Wiring method	2 wire
Switching logic	Solid state output, normally open
Switch type	Current sourcing
Operating voltage	10~28V DC
Switching current	5~50mA max.
Switching rating (*1)	1.5W max.
Current consumption	—
Voltage drop	5V max.
Leakage current	1mA max.
Indicator	Unstable: Red LED ; Stable: Green LED
Cable	ø5.4, 2C, PVC
Temperature range	-10°C~+60°C (No freezing)
Shock (*2)	30G
Vibration (*3)	9G
Enclosure classification	IEC 60529 IP67
Protection circuit (*4)	3 , 4
Weight	120 g (3m cable)
Connect diagram	

\*1. Warning: Never exceed rating (watt=voltage×amperage). Permanent damage to sensor will occur.

\*2. Sin wave / X.Y.Z. 3 directions / 3 times each direction / 11ms each time.

\*3. Double amplitude 1.5mm / 10Hz~55Hz~10Hz(Sweep 1min) / X.Y.Z. 3 directions / 1 hour each time.

\*4. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression

\*5. Caution for safety please refer to page 8-8~9.

### Assembling style

Cylinder type	MCKG*
Mounting clamp	



### Order example

RHN — □



#### MODEL

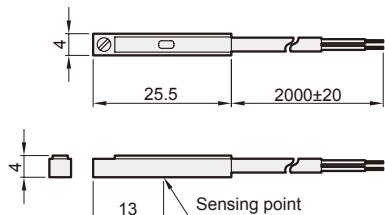
Blank: Reed Switch  
N: NPN  
P: PNP

#### WIRE LENGTH OF CABLE

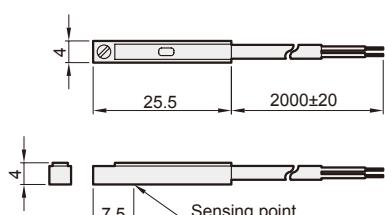
Blank: L=2000mm  
1M: L=1000mm  
QD: M8 3PIN connector  
EQD: M8 3PIN connector  
\* Special order is available.

### Dimension

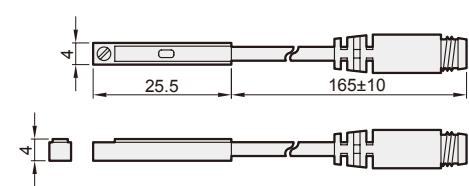
#### RH



#### RHN / RHP



#### RH-QD / RHN-QD / RHP-QD



### Specification

Model	RH	RHN	RHP
Wiring method	2 wire	3 wire	
Switching logic	SPST normally open	Solid state output, normally open	
Switch type	Reed switch	NPN current sinking	PNP current sourcing
Operating voltage	5~120V DC/AC	5~30V DC	
Switching current	100mA max.	200mA max.	
Switching rating <sup>(*1)</sup>	10W max.	6W max.	
Current consumption	—	8 mA@24V max.	
Voltage drop	3.5V max.	1V@200 mA max.	
Leakage current	—	0.01mA max.	
Indicator	Red LED	Red LED	Green LED
Cable	ø2.8, 2C, PUR	ø2.8, 3C, PUR	
Temperature range		-10~+70°C (No freezing)	
Shock <sup>(*2)</sup>	30G	50G	
Vibration <sup>(*3)</sup>		9G	
Enclosure classification		IEC 60529 IP67	
Protection circuit <sup>(*4)</sup>	1	1, 3, 4	
Connect diagram			

\*1. Warning: Never exceed rating (watt=voltage×amperage).

\*2. Sin wave / X.Y.Z. 3 directions / 3 times each direction / 11ms each time.

\*3. Double amplitude 1.5mm / 10Hz~55Hz~10Hz(Sweep 1min) / X.Y.Z. 3 directions / 1 hour each time.

\*4. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression

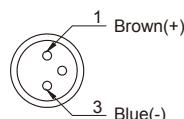
\*5. Caution for safety please refer to the page 8-8~9.

### Assembling style

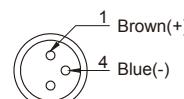
Cylinder type	MCHGH, MCHGF, MCHQ
Mounting clamp	

### Wiring of the QD

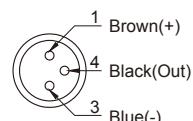
#### • 2 wire QD wiring



#### • 2 wire EQD wiring



#### • 3 wire QD wiring



# RK series

## SENSOR SWITCH



### Order example

RKN — □



#### MODEL

Blank: Reed Switch  
N: NPN  
P: PNP

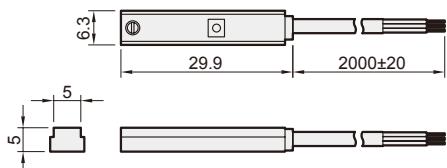
#### WIRE LENGTH OF CABLE

Blank: L=2000mm  
**1M:** L=1000mm  
**QD:** M8 3PIN connector  
**EQD:** M8 3PIN connector

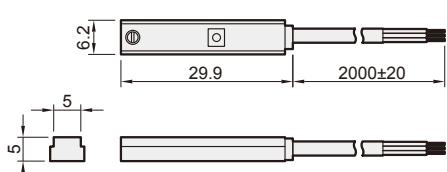
\* Special order is available.

### Dimension

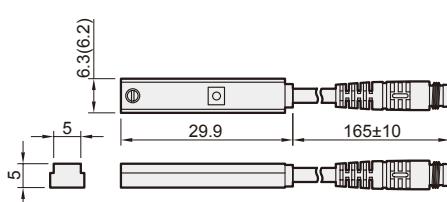
#### RK



#### RKN / RKP



#### RK-QD / RKN-QD / RKP-QD



### Specification

Model	RK	RKN	RKP
Wiring method	2 wire	3 wire	
Switching logic	SPST normally open	Solid state output, normally open	
Switch Type	Reed switch	NPN current sinking	PNP current sourcing
Operating voltage	5~240V DC/AC	10~30V DC	
Switching current		100mA max.	
Switching rating <sup>(*)1</sup>	10W max.	3W max.	
Current consumption	—	17mA@24V DC max.	8mA@24V DC max.
Voltage drop	3.5V max.	1.5V max.	
Leakage current	—	0.01mA max.	
Indicator	Red LED	Red LED	Green LED
Cable	ø3.3, 2C, PVC	ø3.3, 3C, PVC	
Temperature range		-10~+70°C (No freezing)	
Shock <sup>(*)2</sup>	30G	50G	
Vibration <sup>(*)3</sup>		9G	
Enclosure classification		IEC 60529 IP67	
Protection circuit <sup>(*)4</sup>	1	2 , 3, 4	
Connect diagram			

\*1. Warning: Never exceed rating (watt=voltage×amperage).

\*2. Sin wave / X.Y.Z. 3 directions / 3 times each direction / 11ms each time.

\*3. Double amplitude 1.5mm / 10Hz~55Hz~10Hz(Sweep 1min) / X.Y.Z. 3 directions / 1 hour each time.

\*4. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression

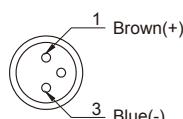
\*5. Caution for safety please refer to the page 8-8~9.

### Assembling style

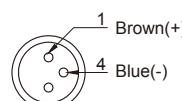
Cylinder type	MCHK, MCHW
Mounting clamp	

### Wiring of the QD

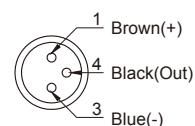
#### • 2 wire QD wiring



#### • 2 wire EQD wiring



#### • 3 wire QD wiring

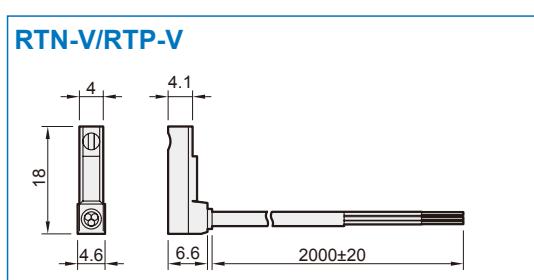
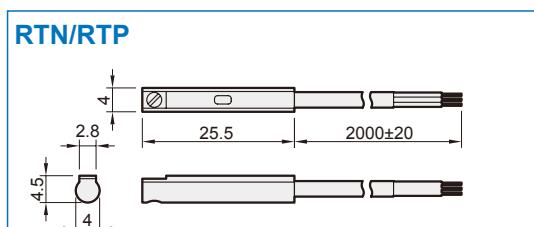
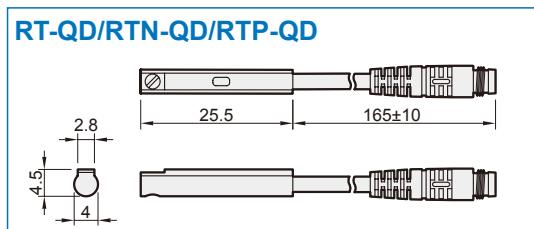
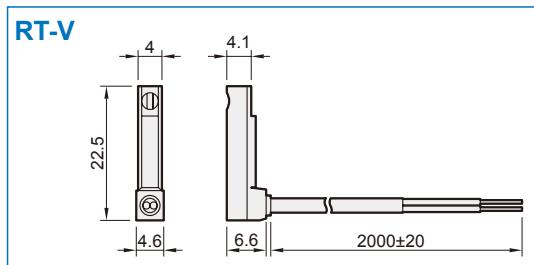
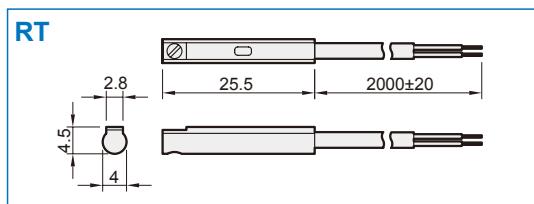


# RT series

## SENSOR SWITCH



### Dimension



### Specification

Model	RT	RTN	RTP
Wiring method	2 wire		3 wire
Switching logic	SPST normally open	Solid state output, normally open	
Switch Type	Reed switch	NPN current sinking	PNP current sourcing
Operating voltage	5~120V DC/AC		5~30V DC
Switching current	100mA max.		200mA max.
Switching rating (*1)	10W max.		6W max.
Current consumption	—	8mA @24V DC max.	
Voltage drop	3.5V max.	1V@200mA max.	
Leakage current	—	0.01mA max.	
Indicator	Red LED	Red LED	Green LED
Cable	ø2.8, 2C, PUR		ø2.8, 3C, PUR
Temperature range		-10~+70°C (No freezing)	
Shock (*2)	30G		50G
Vibration (*3)		9 G	
Enclosure classification		IEC 60529 IP67	
Protection circuit (*4)	1	2, 3, 4	
Connect diagram			

\*1. Warning: Never exceed rating (watt=voltage×amperage).

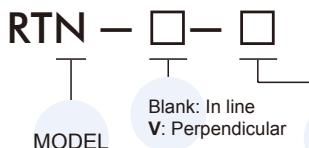
\*2. Sin wave / X.Y.Z. 3 directions / 3 times each direction / 11ms each time.

\*3. Double amplitude 1.5mm / 10Hz~55Hz~10Hz(Sweep 1min) / X.Y.Z. 3 directions / 1 hour each time.

\*4. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression

\*5. Caution for safety please refer to the page 8-8~9.

### Order example



MODEL

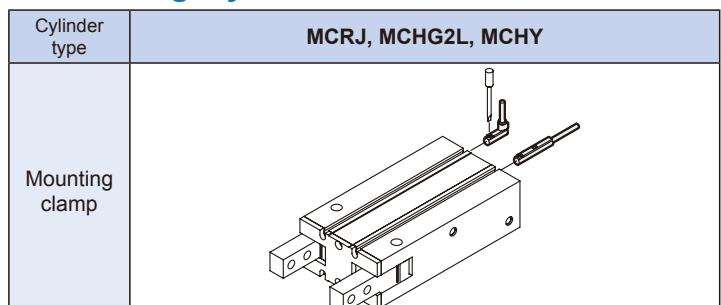
Blank: Reed Switch  
N: NPN  
P: PNP

### WIRE LENGTH OF CABLE

Blank: L=2000mm  
1M: L=1000mm  
QD: M8 3PIN connector  
EQD: M8 3PIN connector

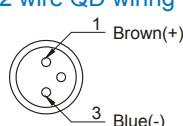
\* Special order is available.

### Assembling style

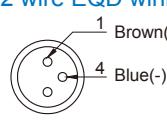


### Wiring of the QD

- 2 wire QD wiring



- 2 wire EQD wiring



- 3 wire QD wiring



# LN01A series

## SENSOR SWITCH



### Specification

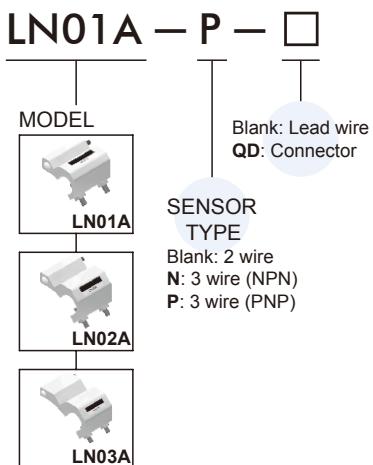
Model	LN0*A	LN0*A-N	LN0*A-P
Wiring method	2 wire	3 wire	
Switching logic	Normally open	Solid state output, normally open	
Switch Type	Reed switch	NPN current sinking	PNP current sourcing
Operating voltage	5~240V DC/AC	10~30V DC	
Switching current	100mA max.	200mA max.	
Switching rating <sup>(*1)</sup>	10W max.	6W max.	
Current consumption	—	OFF:7mA(24V) ON:20mA(24V) max.	
Voltage drop	3V max.	0.5V@200mA max.	
Indicator	Red LED	Green LED	
Cable	Ø3.3, 2C, PVC	Ø3.3, 3C, PVC	
Temperature range	-10~+70°C (No freezing)		
Enclosure classification	IEC 60529 IP67		
Protection circuit <sup>(*2)</sup>	1	3, 4	
Symbol			

\*1. Warning: Never exceed rating (watt=voltage×amperage).

\*2. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression.

\*3. Caution for safety please refer to page 8-8~9.

### Order example

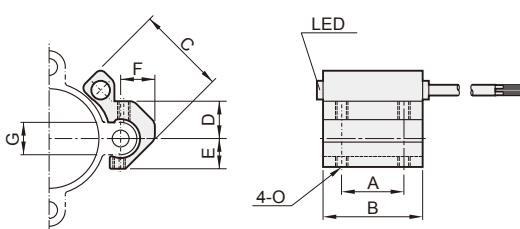


### Assembling style

Cylinder type	MRT*			MHBS / MHBD		
	Order	LN01A	LN02A	LN03A	LN02A	LN03A
Tube I.D.	40	63	80	078*	110*	250*
Mounting clamp						

\* Intensified pressure ratio

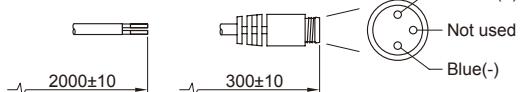
### Dimension



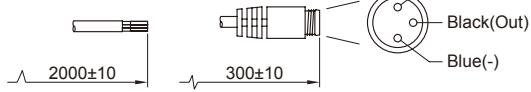
Model	A	B	C	D	E	F	G	O
<b>LN01A</b>	20	32	28.5	12	9.8	11	10.5	M4
<b>LN02A</b>	20	32	37.5	15	13.5	12	13.5	M4
<b>LN03A</b>	20	32	56	18	15	14	17	M4

### Wiring of the QD

- 2 wire QD wiring



- 3 wire QD wiring



# LN01G series

## SENSOR SWITCH



### Specification

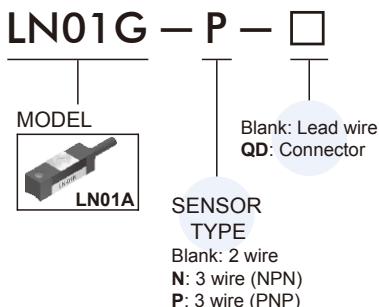
Model	LN01G	LN01G-N	LN01G-P
Wiring method	2 wire	3 wire	
Switching logic	Normally open	Solid state output, normally open	
Switch Type	Reed switch	NPN current sinking	PNP current sourcing
Operating voltage	5~240V DC/AC	5~30V DC	
Switching current	100mA max.	200mA max.	
Switching rating <sup>(*1)</sup>	10W max.	6W max.	
Current consumption	—	OFF:7mA(24V) ON:20mA(24V) max.	
Voltage drop	3V max.	0.5V@200mA max.	
Indicator	Red LED	Green LED	
Cable	Ø3.3, 2C, PVC	Ø3.3, 3C, PVC	
Temperature range	-10~+70°C (No freezing)		
Enclosure classification	IEC 60529 IP67		
Protection circuit <sup>(*2)</sup>	1	3, 4	
Symbol			

\*1. Warning: Never exceed rating (watt=voltage×amperage).

\*2. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression.

\*3. Caution for safety please refer to page 8-8~9.

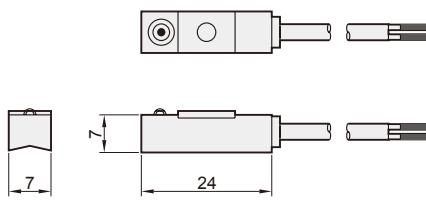
### Order example



### Assembling style

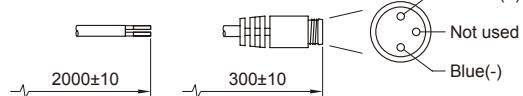
Cylinder type	MDO*	
Order	LN01G	
Tube I.D.	20	32
Mounting clamp		

### Dimension

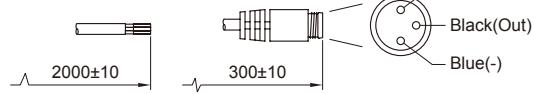


### Wiring of the QD

#### • 2 wire QD wiring



#### • 3 wire QD wiring



# LN01P series

## SENSOR SWITCH



### Specification

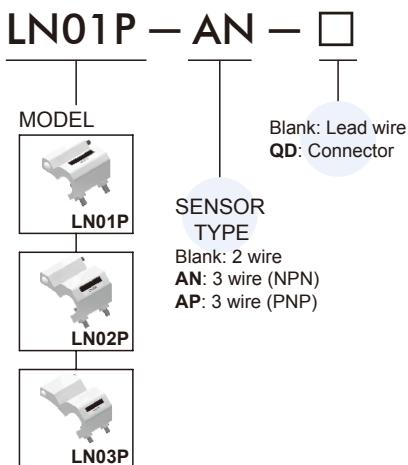
Model	LN0*P	LN0*P-AN	LN0*P-AP
Wiring method	2 wire	3 wire	
Switching logic	Normally open	Solid state output, normally open	
Switch Type	Reed switch	NPN current sinking	PNP current sourcing
Operating voltage	10~220V DC/AC	5~30V DC	
Switching current	100mA max.	200mA max.	
Switching rating <sup>(*1)</sup>	10W max.	6W max.	
Current consumption	—	OFF:7mA(24V) ON:20mA(24V) max.	
Voltage drop	3V max.	0.5V@200mA max.	
Indicator	Red LED	Green LED	
Cable	Ø3.3, 2C, PVC	Ø3.3, 3C, PVC	
Temperature range	-10~+70°C (No freezing)		
Enclosure classification	IEC 60529 IP67		
Protection circuit <sup>(*2)</sup>	1	3, 4	
Symbol			

\*1. Warning: Never exceed rating (watt=voltage×amperage).

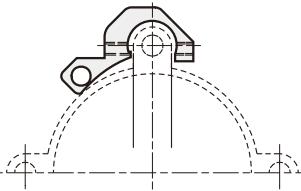
\*2. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression.

\*3. Caution for safety please refer to page 8-8~9.

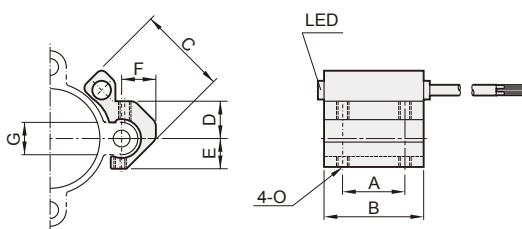
### Order example



### Assembling style

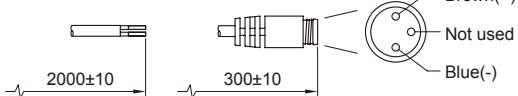
Cylinder type	MDM*			MRPH	
	Order	LN01P	LN02P	LN03P	LN01P
Tube I.D.	40	50	63	80	100
Mounting clamp					

### Dimension

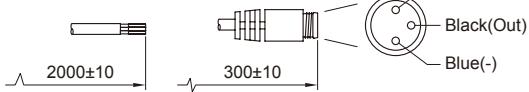


### Wiring of the QD

- 2 wire QD wiring

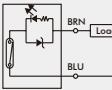
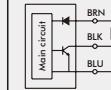
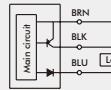


- 3 wire QD wiring





### Specification

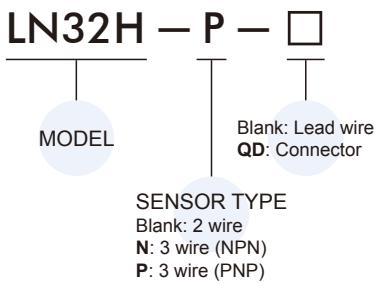
Model	LN32H	LN32H-N	LN32H-P
Wiring method	2 wire	3 wire	
Switching logic	Normally open	Solid state output, normally open	
Switch Type	Reed switch	NPN current sinking	PNP current sinking
Operating voltage	5~240V DC/AC	10~30V DC	
Switching current	100mA max.	200mA max.	
Switching rating <sup>(*1)</sup>	10W max.	3W max.	
Current consumption	—	OFF:7mA(24V) ON:17mA(24V) max.	
Voltage drop	3.5V max.	2.0V max.	
Indicator	Red LED	Yellow LED	
Cable	ø3.3, 2C, PVC	ø3.3, 3C, PVC	
Temperature range	-10~+70°C (No freezing)		
Enclosure classification	IEC 60529 IP67		
Protection circuit <sup>(*2)</sup>	1	3, 4	
Symbol			

\*1. Warning: Never exceed rating (watt=voltage×amperage).

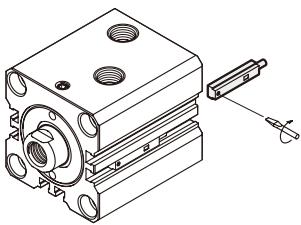
\*2. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression.

\*3. Caution for safety please refer to page 8-8~9.

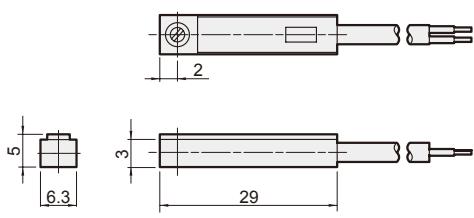
### Order example



### Assembling style

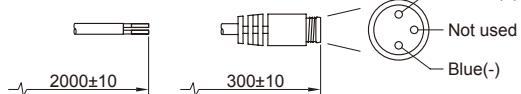
Cylinder type	MHCB-M				
Order	LN32H				
Tube I.D.	25	32	40	50	63
Mounting clamp					

### Dimension

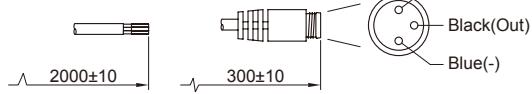


### Wiring of the QD

#### • 2 wire QD wiring



#### • 3 wire QD wiring



# LN40R series

## SENSOR SWITCH



### Order example

**LN40R – P – □**

- MODEL
- Blank: Lead wire  
QD: Connector
- SENSOR TYPE
  - Blank: 2 wire
  - N: 3 wire (NPN)
  - P: 3 wire (PNP)

### Specification

Model	LN40R	LN40R-N	LN40R-P
Wiring method	2 wire	3 wire	
Switching logic	Normally open	Solid state output, normally open	
Switch Type	Reed switch	NPN current sinking	PNP current sinking
Operating voltage	5~120V DC/AC	50~30V DC	
Switching current	100mA max.	200mA max.	
Switching rating <sup>(*1)</sup>	10W max.	3W max.	
Current consumption	—	OFF:7mA(24V) ON:17mA(24V) max.	
Voltage drop	2.5V max.	1.5V@100mA max.	
Indicator	Red LED	Yellow LED	
Cable	ø3, 2C, PVC	ø3, 3C, PVC	
Temperature range	-10~+70°C (No freezing)		
Enclosure classification	IEC 60529 IP67		
Protection circuit <sup>(*2)</sup>	1	3, 4	
Symbol			

\*1. Warning: Never exceed rating (watt=voltage×amperage).

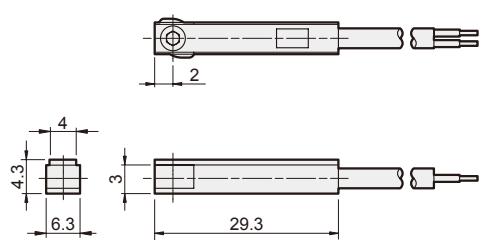
\*2. 1=None / 2=Short-circuit / 3=Power source reverse polarity / 4=Surge suppression.

\*3. Caution for safety please refer to page 8-8~9.

### Assembling style

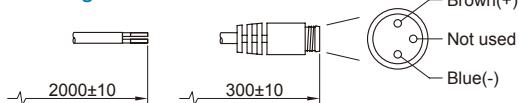
Cylinder type	MTA*				
Order	LN40R				
Tube I.D.	25	32	40	50	63
Mounting clamp					

### Dimension

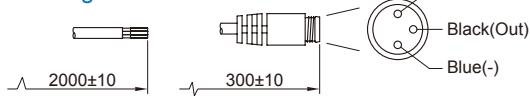


### Wiring of the QD

#### • 2 wire QD wiring

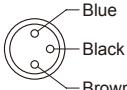
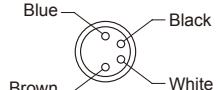


#### • 3 wire QD wiring



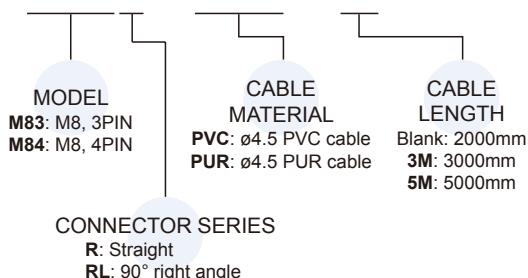


### Specification

Model	M83R / M83RL		M84R / M84RL	
Female pinout	 Blue Black Brown			 Blue Black Brown White
Number of contacts	3			4
Rated voltage	60V DC/AC			
Rated current	3A			
Contact material	Gold plated brass			
Contact bearer material	PA			
Housing material	PP			
Housing color	Black			
Cable material	Ø4.5, PVC	Ø4.5, PUR	Ø4.5, PVC	Ø4.5, PUR
Cable color	Gray	Black	Gray	Black
Temperature	-20°C~+80°C (No freezing)			
Cable conductor	24AWG			
Protection class	IEC60529 IP 67			

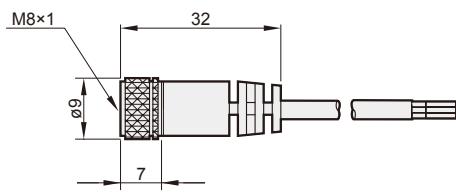
### Order example

**M83R — PVC — □**

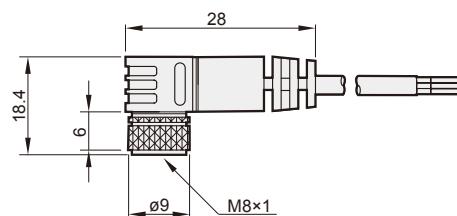


### Dimension

- Straight (M83R/ M84R)



- 90° Right angle (M83RL/ M84RL)



# MEMO

NOTE



Rotary Actuator

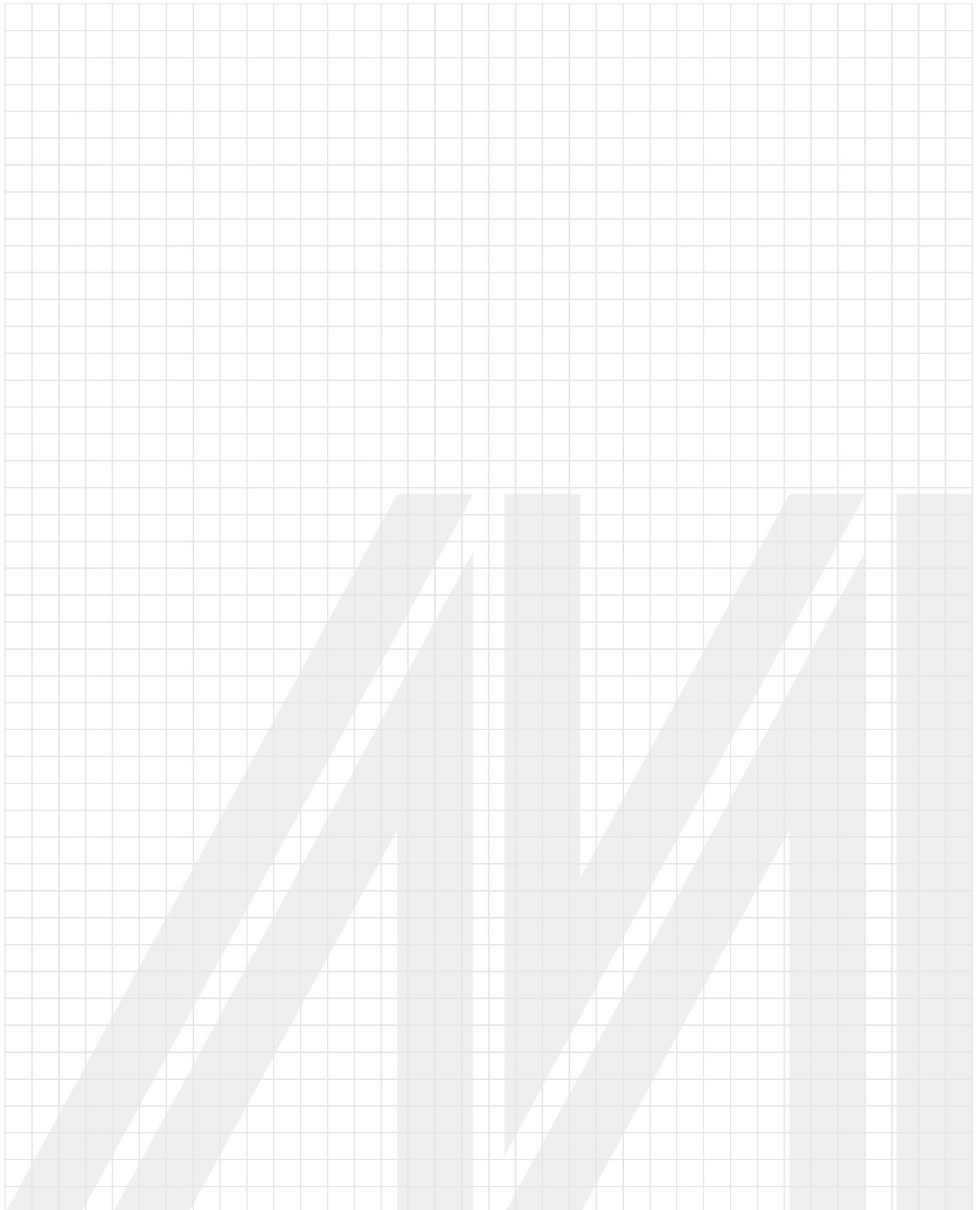
Clamp Cylinder

Gripper

Electric Actuator

Auxiliary Equipment

Hydraulic Cylinder



**MEMO**

NOTE

