Environment-resistant Switches

Standard Switches

Item			Actuator	Roller lever R38	Adjustable roller lever	Adjustable rod lever 25 to 140mm
			Pretravel (PT)	Model	Model	Model
Airtight seal		Basic	15±5°	WLCA2-55-N	WLCA12-55-N	WLCL-55-N
			25±5°	WLCA2-255-N	—	—
			MAX20°	WLCA2-2N55-N	—	—
		High-sensitivity	10° +2°	WLG2-55-N	—	—
		High-precision	5° +2° 0°	WLGCA2-55-N	—	—
Hermetic seal	Molded terminals, -139 models	Basic	15±5°	WLCA2-139-N	WLCA12-139-N	WLCL-139-N
			25±5°	WLCA2-2139-N	—	—
			MAX20°	WLCA2-2N139-N	—	—
		High-sensitivity	10° +2°	WLG2-139-N	—	—
		High-precision	5° +2° 0°	WLGCA2-139-N	—	—
	Molded terminals, -140 models	Basic	15±5°	WLCA2-140-N	WLCA12-140-N	WLCL-140-N
			25±5°	—	—	—
			MAX20°	WLCA2-2N140-N	—	—
		High-sensitivity	10° +2°	WLG2-140-N	—	—
		High-precision	5° +2° 0°	—	—	—
	Molded terminals, -141 models	Basic	15±5°	WLCA2-141-N	WLCA12-141-N	—
			25±5°	—	—	—
			MAX20°	—	—	—
		High-sensitivity	10° +2°	WLG2-141-N	—	—
		High-precision	5° +2° 0°	WLGCA2-141-N	—	—
	Anti-coolant	Basic	15±5°	WLCA2-RP60-N	WLCA12-RP60-N	WLCL-RP60-N
			25±5°	WLCA2-2RP60-N	—	—
			MAX20°	—	—	—
		High-sensitivity	10° +2°	WLG2-RP60-N	—	—
		High-precision	5° +2° 0°	WLGCA2-RP60-N	—	—
Heat-resistant		Basic	15±5°	WLCA2-TH-N	WLCA12-TH-N	WLCL-TH-N
			25±5°	WLCA2-2TH-N	WLCA12-2TH-N	WLCL-2TH-N
			MAX20°	WLCA2-2NTH-N	WLCA12-2NTH-N	WLCL-2NTH-N
		High-sensitivity	10° +2°	WLG2-TH-N	WLG12-TH-N	WLGL-TH-N
		High-precision	5° +2° 0°	WLGCA2-TH-N	—	—
Low-temperature		Basic	15±5°	WLCA2-TC-N	WLCA12-TC-N	WLCL-TC-N
			25±5°	WLCA2-2TC-N	WLCA12-2TC-N	WLCL-2TC-N
			MAX20°	WLCA2-2NTC-N	WLCA12-2NTC-N	WLCL-2NTC-N
		High-sensitivity	10° +2°	WLG2-TC-N	WLG12-TC-N	WLGL-TC-N
		High-precision	5° +2° 0°	WLGCA2-TC-N	—	—
Corrosion-proof		Basic	15±5°	WLCA2-RP-N	WLCA12-RP-N	WLCL-RP-N
			25±5°	—	—	—
			MAX20°	—	—	—
		High-sensitivity	10° +2°	WLG2-RP-N	—	—
		High-precision	5° +2° 0°	WLGCA2-RP-N	—	—
Weather-proof		Basic	15±5°	WLCA2-P1-N	WLCA12-P1-N	WLCL-P1-N
			25±5°	—		—
			MAX20°	—		—
		High-sensitivity	10° +2°	WLG2-P1-N	WLG12-P1-N	WLGL-P1-N

Note: The maximum cable length for a Hermetic Switch is 5 m.

Actuator		Sealed top-roller plunger	Horizontal plunger	Horizontal-roller plunger	Coil spring (spring diameter: 6.5)	Resin rod (rod diameter: 8)
		Model	Model	Model	Model	Model
Airtight		WLD28-55-N	WLSD-55-N	WLSD2-55-N	WLNJ-55-N	WLNJ-255-N
Hermetic	Molded terminals, -139 models	WLD28-139-N	WLSD-139-N	WLSD2-139-N	WLNJ-139-N	WLNJ-2139-N
	Molded terminals, -140 models	WLD28-140-N	—	WLSD2-140-N	WLNJ-140-N	WLNJ-2140-N
	Anti-coolant	WLD28-RP60-N	WLSD-RP60-N	WLSD2-RP60-N	WLNJ-RP60-N	WLNJ-2RP60-N
Heat-resistant		WLD28-TH-N	WLSD-TH-N	WLSD2-TH-N	WLNJ-TH-N	—
Low-temperature		—	WLSD-TC-N	WLSD2-TC-N	WLNJ-TC-N	—
Corrosion-proof		WLD28-RP-N	WLSD-RP-N	WLSD2-RP-N	WLNJ-RP-N	WLNJ-2RP-N

Note: The maximum cable length for a Hermetic Switch is 5 m.

Environment-resistant Switches

Operation indicator Switches

Airtight Switches

Actuator			Roller lever: R38 	Adjustable roller lever 	Adjustable rod lever: 25 to 140mm 
Indicator	Item	Pretravel (PT)	Model	Model	Model
Neon lamp	Basic	15±5°	WLCA2-55LE-N	WLCA12-55LE-N	—
		25±5°	WLCA2-255LE-N	—	—
		MAX20°	WLCA2-2N55LE-N	—	—
	High-sensitivity	10° $^{+2°}_{-1°}$	WLG2-55LE-N	—	—
	High-precision	5° $^{+2°}_{0°}$	WLGCA2-55LE-N	—	—
LED	Basic	15±5°	WLCA2-55LD-N	WLCA12-55LD-N	WLCL-55LD-N
		25±5°	WLCA2-255LD-N	—	—
		MAX20°	WLCA2-2N55LD-N	—	—
	High-sensitivity	10° $^{+2°}_{-1°}$	WLG2-55LD-N	—	—
	High-precision	5° $^{+2°}_{0°}$	WLGCA2-55LD-N	—	—

Actuator		Sealed top-roller plunger 	Horizontal plunger 	Horizontal-roller plunger 	Coil spring (spring diameter: 6.5) 	Resin rod (rod diameter: 8) 
Indicator	Item	Model	Model	Model	Model	Model
Neon lamp	Basic	WLD28-55LE-N	—	—	—	—
LED	Basic	WLD28-55LD-N	WLSD-55LD-N	WLSD2-55LD-N	WLNJ-55LD-N	WLNJ-255LD-N

Hermetic Switches

Actuator			Roller lever: R38 	
		Wiring specification	NC wiring	NO wiring
Item		Pretravel (PT)	Model	Model
Molded terminals, -139 models	Basic	15±5°	WLCA2-139LD2-N	WLCA2-139LD3-N
		25±5°	WLCA2-2139LD2-N	WLCA2-2139LD3-N
		MAX20°	—	—
	High-sensitivity	10° $^{+2°}_{-1°}$	—	WLG2-139LD3-N
	High-precision	5° $^{+2°}_{0°}$	WLGCA2-139LD2-N	WLGCA2-139LD3-N
Molded terminals, -141 models	Basic	15±5°	WLCA2-141LD2-N	WLCA2-141LD3-N
		25±5°	—	—
		MAX20°	—	—
	High-sensitivity	10° $^{+2°}_{-1°}$	WLG2-141LD2-N	WLG2-141LD3-N
	High-precision	5° $^{+2°}_{0°}$	—	—
Anti-coolant	Basic	15±5°	WLCA2-RP60LD2-N	WLCA2-RP60LD3-N
		25±5°	WLCA2-2RP60LD2-N	WLCA2-2RP60LD3-N
		MAX20°	—	—
	High-sensitivity	10° $^{+2°}_{-1°}$	WLG2-RP60LD2-N	WLG2-RP60LD3-N
	High-precision	5° $^{+2°}_{0°}$	WLGCA2-RP60LD2-N	WLGCA2-RP60LD3-N

Note: The maximum cable length for a Hermetic Switch is 5 m.

Spatter-prevention Switches

Actuator			Roller lever: R38		Sealed top-roller plunger
			Double Nut Lever	Allen-head Lever	
Indicator	Item	Pretravel (PT)	Model	Model	Model
Neon lamp	Basic	15±5°	WLCA2-LEAS-N	WLCA2-LES-N	WLD28-LES-N
	High-sensitivity	10° $^{+2°}_{-1°}$	WLG2-LEAS-N	WLG2-LES-N	—
	High-precision	5° $^{+2°}_{0°}$	—	WLGCA2-LES-N	—
LED	Basic	15±5°	WLCA2-LDAS-N	WLCA2-LDS-N	WLD28-LDS-N
	High-sensitivity	10° $^{+2°}_{-1°}$	WLG2-LDAS-N	WLG2-LDS-N	—
	High-precision	5° $^{+2°}_{0°}$	—	WLGCA2-LDS-N	—

Long-life Switches

Item			Operation indicator (LED) *1		
			Basic 15±5°	High-sensitivity 10° $^{+2°}_{-1°}$	High-precision 5° $^{+2°}_{0°}$
Actuator			Model	Model	Model
 Roller lever: R38, screw terminals			WLMCA2-LD-N	WLMG2-LD-N	WLMGCA2-LD-N
 Roller lever, direct-wired connector	2 conductors	AC	WLMCA2-LDK13A-N	WLMG2-LDK13A-N	WLMGCA2-LDK13A-N
		DC	WLMCA2-LDK13-N	WLMG2-LDK13-N	WLMGCA2-LDK13-N
	4 conductors	AC	WLMCA2-LDK43A-N	WLMG2-LDK43A-N	—
		DC	WLMCA2-LDK43-N	WLMG2-LDK43-N	WLMGCA2-LDK43-N
 Roller lever, pre-wired connector *2	2 conductors	DC	WLMCA2-LD-M1J-N	WLMG2-LD-M1J-N	WLMGCA2-LD-M1J-N
	4 conductors	DC	WLMCA2-LD-DGJ-N	WLMG2-LD-DGJ-N	—

***1.** The default setting is light-ON when not operating (NO wiring).
Turn the lamp holder by 180° to change the setting to light-ON when operating (NC wiring).
(Ask your OMRON representative for information on 2-conductor models.)

***2.** With 0.3-m cable.

Individual Parts

Switches without Levers, Heads, and Actuators

General-purpose Parts

Actuator	Item	Pretravel (PT)	Set	Switch without levers	Head *1 (with Actuators)	Actuator only *2
				Model	Model	Model
Roller lever 	Basic	15±5°	WLCA2-N	WLRCA2-N	WL-1H1100-N	WL-1A100
		25±5°	WLCA2-2-N	WLRCA2-2-N	WL-3H1100-N	
		MAX20°	WLCA2-2N-N	WLRCA2-2N-N	WL-1H1100-N	
	High-sensitivity	10° +2° -1°	WLG2-N	WLRG2-N	WL-2H1100-N	
Adjustable roller lever 	Basic	15±5°	WLCA12-N	WLRCA2-N	WL-1H2100-N	WL-2A100
		25±5°	WLCA12-2-N	WLRCA2-2-N	WL-3H2100-N	
		MAX20°	WLCA12-2N-N	WLRCA2-2N-N	WL-1H2100-N	
	High-sensitivity	10° +2° -1°	WLG12-N	WLRG2-N	WL-2H2100-N	
Variable rod lever 	Basic	15±5°	WLCL-N	WLRCA2-N	WL-1H4100-N	WL-4A100
		25±5°	WLCL-2-N	WLRCA2-2-N	WL-3H4100-N	
		MAX20°	WLCL-2N-N	WLRCA2-2N-N	WL-1H4100-N	
	High-sensitivity	10° +2° -1°	WLGL-N	WLRG2-N	WL-2H4100-N	
Fork lever lock 	Basic	MAX55°	WLCA32-41-N	WLRCA32-N	WL-5H5100-N	WL-5A100
			WLCA32-42-N		WL-5H5102-N	WL-5A102
			WLCA32-43-N		WL-5H5104-N	WL-5A104
			WLCA32-44-N		WL-5H5104-N	WL-5A104
Top plunger 	Basic	MAX 1.7 mm	WLD18-N	—	WL-7H100-N	—
			WLD28-N		WL-7H400-N	—
			WLD38-N		WL-7H300-N	—
Horizontal plunger 	Basic	MAX 2.8 mm	WLSD-N	—	WL-8H100-N	—
			WLSD2-N		WL-8H200-N	—
			WLSD3-N		WL-8H300-N	—
Flexible rod 	Basic	20±10 mm	WLNJ-N	—	WL-9H100-N	—
			WLNJ-30-N		WL-9H200-N	—
		40±20 mm	WLNJ-2-N		WL-9H300-N	—
			WLNJ-S2-N		WL-9H400-N	—

***1.** The heads are not compatible with WL-series Switches.
***2.** The same Actuators can be used for both WL and WL-N Switches.

Spatter-prevention Parts

Actuator	Lever Type	Item	Set	Switch without levers	Head *1 (with Actuators)	Actuator only *2
				Model	Model	Model
Roller lever 	Allen-head bolt lever	Basic	WLCA2-LES-N	WLRCA2-LES-N	WL-1H1100S-N	WL-1A103S
			WLCA2-LDS-N	WLRCA2-LDS-N		
		High-sensitivity	WLG2-LDS-N	WLRG2-LDS-N		
	Double nut lever	Basic	WLCA2-LEAS-N	WLRCA2-LES-N	WL-2H1100S-N	WL-1A105S
			WLCA2-LDAS-N	WLRCA2-LDS-N		
		High-sensitivity	WLG2-LDAS-N	WLRG2-LDS-N		

***1.** The heads are not compatible with WL-series Switches.
***2.** The same Actuators can be used for both WL and WL-N Switches.

Covers with Indicators (See Note.)

General-purpose Parts

Cover / Item	Cover only * Model
Neon lamp	WL-LE-N
LED	WL-LD-N

Spatter-prevention Parts

Cover / Item	Cover only * Model
Neon lamp	WL-LES-N
LED	WL-LDS-N

* The Covers are not compatible with WL-series Switches.

Note: The default setting is for light-ON when not operating.
Turn the lamp holder by 180° to change the setting to light-ON when operating.

Specifications

General-purpose/ Environment-resistant Switches

Ratings

Screw Terminals

Item	Rated voltage (V)	Non-inductive load (A)				Inductive load (A)			
		Resistive load		Lamp load		Inductive load		Motor load	
		NC	NO	NC	NO	NC	NO	NC	NO
Basic or high-precision	AC 125	10		3	1.5	10		5	2.5
	AC 250	10		2	1	10		3	1.5
	AC 500	10		1.5	0.8	3		1.5	0.8
	DC 8	10		6	3	10		6	
	DC 14	10		6	3	10		6	
	DC 30	6		4	3	6		4	
	DC 125	0.8		0.2	0.2	0.8		0.2	
	DC 250	0.4		0.1	0.1	0.4		0.1	
High-sensitivity Switches	AC 125	5		—		—		—	
	AC 250	5							
	DC 125	0.4		—		—		—	
	DC 250	0.2							

Note: 1. The above figures are for steady-state currents.
2. Inductive loads have a power factor of 0.4 min. (AC) and a time constant of 7 ms max. (DC).
3. A lamp load has an inrush current of 10 times the steady-state current.
4. A motor load has an inrush current of 6 times the steady-state current.
5. For PC loads, use the microload models.

Inrush current	NC	30 A max.(15 A max. *)
	NO	20 A max.(10 A max. *)

* For high-sensitivity switches.

Minimum applicable load	5 VDC 1 mA, resistive load, P level

Operation indicator Switches

Model	Item	Max. rated voltage	Leakage current (mA)
WL-LE-N	Neon lamp	125 AC	Approx. 0.6
		250 AC	Approx. 1.9
WL-LD-N	LED	10 to 24 VAC/DC	Approx. 0.4
		115 VAC/DC	Approx. 0.5

Characteristics

Degree of protection		IP67
Durability *1	Mechanical	15,000,000 operations min. *2
	Electrical	750,000 operations min. *3
Operating speed		1 mm/s to 1 m/s (in case of WLCA2-N)
Operating frequency	Mechanical	120 operations/minute min.
	Electrical	30 operations/minute min.
Rated frequency		50/60 Hz
Insulation resistance		100 MΩ min. (at 500 VDC)
Contact resistance		25 mΩ max. (initial value for the built-in switch when tested alone)
Dielectric strength	Between terminals of the same polarity	1,000 VAC (600 VAC), 50/60 Hz for 1 min
	Between currentcarrying metal part and ground	2,200 VAC (1,500 VAC), 50/60 Hz for 1 min *4
	Between each terminal and non-currentcarrying metal part	2,200 VAC (1,500 VAC), 50/60 Hz for 1 min *4
Vibration resistance	Malfunction	10 to 55 Hz, 1.5-mm double amplitude *5
Shock resistance	Destruction	1,000 m/s^2 max.
	Malfunction	300 m/s^2 *5
Ambient operating temperature		-10 to +80°C (with no icing) *6
Ambient operating humidity		35% to 95% RH
Weight		Approx. 255 g (in case of WLCA2-N)

Note: 1. The above figures are initial values.
2. The figures in parentheses for dielectric strength are those for the highsensitivity switches models.

***1.** The values are calculated at an operating temperature of +5°C to +35°C and an operating humidity of 40% to 70% RH. Contact your OMRON sales representative for more detailed information on other operating environments.
***2.** High-sensitivity Switches and Switches with Flexible Rod Actuators: 10 million operations min.
500,000 operations min. for weather-proof models.
***3.** Durability is 500,000 operations min. for high-sensitivity models.
500,000 operations min. for weather-proof models.
Contact your OMRON representative for information on Environment-resistant Switches.
***4.** Switches with Connectors: 1,500 V.
***5.** Except Switches with Flexible Rod Actuators.
***6.** For low-temperature models this is -40°C to +40°C (with no icing). For heatresistant models the range is +5°C to +120°C.

Spatter-prevention Switches

Ratings

Screw Terminals

Item	Rated voltage (V)	Non-inductive load (A)				Inductive load (A)			
		Resistive load		Lamp load		Inductive load		Motor load	
		NC	NO	NC	NO	NC	NO	NC	NO
WL□-LES-N (Without high-sensitivity overtravel models)	AC 125	10		3	1.5	10		5	2.5
	AC 250	10		2	1	10		3	1.5
WL□-LDS-N (Without high-sensitivity overtravel models)	AC 115	10		3	1.5	10		5	2.5
	DC 12	10		6	3	10		6	
	DC 24	6		4	3	6		4	
	DC 115	0.8		0.2	0.2	0.8		0.2	

Note: 1. The above figures are for steady-state currents.
2. Inductive loads have a power factor of 0.4 min. (AC) and a time constant of 7 ms max. (DC).
3. A lamp load has an inrush current of 10 times the steady-state current.
4. A motor load has an inrush current of 6 times the steady-state current.

***** Refer to the rating of a General-purpose / Weather-proof Switches type for the rating of a high-sensitivity overtravel type.

Inrush current	NC	30 A max.(15 A max. *)
	NO	20 A max.(10 A max. *)

***** For high-sensitivity switches.

Minimum applicable load	5 VDC 1 mA, resistive load, P level

Characteristics

Degree of protection		IP67
Durability *1	Mechanical	15,000,000 operations min. *2
	Electrical	750,000 operations min. (3 A at 250 VAC, resistive load) *3
Operating speed		1 mm/s to 1 m/s (in case of WLCA2-LDS-N)
Operating frequency	Mechanical	120 operations/minute min.
	Electrical	30 operations/minute min.
Rated frequency		50/60 Hz
Insulation resistance		100 MΩ min. (at 500 VDC)
Contact resistance		25 mΩ max. (initial value for the built-in switch when tested alone)
Dielectric strength	Between terminals of the same polarity	1,000 VAC (600 VAC), 50/60 Hz for 1 min
	Between currentcarrying metal part and ground	2,200 VAC (1,500 VAC), 50/60 Hz for 1 min *4
	Between each terminal and non-currentcarrying metal part	2,200 VAC (1,500 VAC), 50/60 Hz for 1 min *4
Vibration resistance	Malfunction	10 to 55 Hz, 1.5-mm double amplitude
Shock resistance	Destruction	1,000 m/s^2 max.
	Malfunction	300 m/s^2
Ambient operating temperature		-10 to +80°C (with no icing)
Ambient operating humidity		35% to 95% RH
Weight		Approx. 255 g (in case of WLCA2-LDS-N)

Note: 1. The above figures are initial values.
2. The figures in parentheses for dielectric strength are those for the highsensitivity overtravel models.

***1.** The values are calculated at an operating temperature of +5°C to +35°C and an operating humidity of 40% to 70% RH. Contact your OMRON sales representative for more detailed information on other operating environments.
***2.** Durability is 10,000,000 operations min. for high-sensitivity models.
***3.** Durability is 500,000 operations min. for high-sensitivity models.
500,000 operations min. for weather-proof models.
Contact your OMRON representative for information on Airtight Switches.
***4.** Switches with Connectors: 1,500 V.

Long-life Switches

Ratings

Screw Terminal Switches

Item	Rated voltage (V)	Non-inductive load (A)				Inductive load (A)			
		Resistive load		Lamp load		Inductive load		Motor load	
		NC	NO	NC	NO	NC	NO	NC	NO
Basic or high-precision	115 AC	10		3	1.5	10		5	2.5
	12 DC 24 DC 115 DC	10 6 0.8		6 4 0.2	3 3 0.2	10 6 0.8		6 4 0.2	
High-sensitivity	115 AC	5		—		—		—	
	115 DC	0.4		—		—		—	

Inrush current	NC	30 A max. (15 A max. *)
	NO	20 A max. (10 A max. *)

* For high-sensitivity overtravel models.

Minimum applicable load	5 VDC 1 mA, resistive load, P level

Direct-wired Connector and Pre-wired Connector Switches

Model	Rated voltage (V)	Non-inductive load (A)				Inductive load (A)			
		Resistive load		Lamp load		Inductive load		Motor load	
		NC	NO	NC	NO	NC	NO	NC	NO
Basic or high-precision	115 AC	3		3	1.5	3		3	2.5
	12 DC 24 DC 115 DC	3 3 0.8		3 3 0.2		3 3 0.8		3 3 0.2	
High-sensitivity	115 AC	3		—		—		—	
	115 DC	0.4		—		—		—	

Note: 1. The above figures are for steady-state currents.
2. Inductive loads have a power factor of 0.4 min. (AC) and a time constant of 7 ms max. (DC).
3. A lamp load has an inrush current of 10 times the steady-state current.
4. A motor load has an inrush current of 6 times the steady-state current.

Characteristics

Degree of protection		IP67
Durability *1	Mechanical	30,000,000 operations min.
	Electrical	30,000,000 operations min. (10 mA at 24 VDC, resistive load) 750,000 operations min. (3 A at 115 VAC, resistive load) High-sensitivity Switches: 500,000 operations min. (3 A at 115 VAC, resistive load)
Operating speed		1 mm/s to 1 m/s (for WLMCA2-LD-N)
Operating frequency	Mechanical	120 operations/minute
	Electrical	30 operations/minute
Rated frequency		50/60 Hz
Insulation resistance		100 MΩ min. (at 500 VDC)
Contact resistance		25 mΩ max. (initial value for the built-in switch when tested alone)
Dielectric strength (50/60 Hz for 1 min)	Between terminals of the same polarity	1,000 VAC (600 VAC), 50/60 Hz for 1 min
	Between current-carrying metal part and ground	2,200 VAC (1,500 VAC), 50/60 Hz for 1 min *2
	Between each terminal and non-current-carrying metal part	2,200 VAC (1,500 VAC), 50/60 Hz for 1 min *2
Vibration resistance	Malfunction	10 to 55 Hz, 1.5-mm double amplitude
Shock resistance	Destruction	1,000 m/s^2 max.
	Malfunction	300 m/s^2 max.
Ambient operating temperature		–10°C to +80°C (with no icing)
Ambient operating humidity		35% to 95%RH
Weight		Approx. 255 g (for WLMCA2-LD-N)

Note: 1. The above figures are initial values.
2. The figures in parentheses for dielectric strength are for the High-sensitivity Switches.

***1.** The values are calculated at an operating temperature of +5°C to +35°C, and an operating humidity of 40% to 70%RH. Contact your OMRON sales representative for more detailed information on other operating environments.
***2.** Switches with Connectors: 1,500 V.

General-purpose/ Environment-resistant/ Spatter-prevention Switches

Approved Standards

Agency	Standard	File No.	Approved models
UL	UL508	Contact your OMRON representative for information	Contact your OMRON representative for information
	CSA C22.2 No.14		
TÜV Rheinland	EN60947-5-1		
CCC (CQC)	GB14048.5		

Approved Standard Ratings

UL/cUL (UL508, CSA C22.2 No.14)

Specifications			Approved Standards
Indicator	Sensor I/O connectors	Item	
No indicator	No Connector	Basic Switches	A600 1 A, 125 VDC
		High-sensitivity or high-precision	B600 0.5 A, 125 VDC
	Pre-wired Connector (AC)	Basic, high-sensitivity, or high-precision	C300 3 A, 250 VAC
	Pre-wired Connector (DC) Direct-wired Connector (DC)	Basic Switches	1 A, 125 VDC
		High-sensitivity or high-precision	0.5 A, 125 VDC
Neon lamp	No Connector	Basic Switches	A300 10 A, 250 VAC
		High-sensitivity or high-precision	B300 5 A, 250 VAC
	Pre-wired Connector (AC)	Basic, high-sensitivity, or high-precision	C300 3 A, 250 VAC
LED	No Connector	Basic Switches	A150 10 A, 115 VAC 1 A, 115 VDC
		High-sensitivity or high-precision	B150 5 A, 115 VAC 0.5 A, 115 VDC
	Pre-wired Connector (AC)	Basic, high-sensitivity, or high-precision	C150 3 A, 115 VAC
	Pre-wired Connector (DC) Direct-wired Connector (DC)	Basic Switches	1 A, 115 VDC
		High-sensitivity or high-precision	0.5 A, 115 VDC

A600 Authentication conditions

Rated voltage	Energizing current	Current (A)		Volt-ampere (VA)	
		Make	Break	Make	Break
120 VAC 240 VAC 480 VAC 600 VAC	10 A	60 30 15 12	6 3 1.5 1.2	7,200	720

B600 Authentication conditions

Rated voltage	Energizing current	Current (A)		Volt-ampere (VA)	
		Make	Break	Make	Break
120 VAC 240 VAC 480 VAC 600 VAC	5 A	30 15 7.5 6	3 1.5 0.75 0.6	3,600	360

C300 Authentication conditions

Rated voltage	Energizing current	Current (A)		Volt-ampere (VA)	
		Make	Break	Make	Break
120 VAC 240 VAC	2.5 A	15 7.5	1.5 0.75	1,800	180

A300 Authentication conditions

Rated voltage	Energizing current	Current (A)		Volt-ampere (VA)	
		Make	Break	Make	Break
120 VAC 240 VAC	10 A	60 30	6 3	7,200	720

B300 Authentication conditions

Rated voltage	Energizing current	Current (A)		Volt-ampere (VA)	
		Make	Break	Make	Break
120 VAC 240 VAC	5 A	30 15	3 1.5	3,600	360

A150 Authentication conditions

Rated voltage	Energizing current	Current (A)		Volt-ampere (VA)	
		Make	Break	Make	Break
120 VAC	10 A	60	6	7,200	720

B150 Authentication conditions

Rated voltage	Energizing current	Current (A)		Volt-ampere (VA)	
		Make	Break	Make	Break
120 VAC	5 A	30	3	3,600	360

C150 Authentication conditions

Rated voltage	Energizing current	Current (A)		Volt-ampere (VA)	
		Make	Break	Make	Break
120 VAC	2.5 A	15	1.5	1,800	180

TÜV (EN 60947-5-1)

(Certification Only for Switches with Ground Terminals and DC Switches with Connectors)

Authentication conditions	Specification					
	With ground terminals					With DC Connector
	No indicator		Neon lamp	LED		
Working load category	AC-15	DC-12	AC-15	AC-15	DC-12	DC-12
Rated working voltage (Ue)	250 V	48 V	250 V	115 V	48 V	48 V
Rated working current (Ie)	2 A					
Conditional short-circuit current	100 A					
Short-circuit protective device (SCPD)	10 A, fuse type gG					
Rated insulation voltage (Ui)	250 V					48 V
Rated impulse dielectric strength (Uimp)	4 kV					800 V
Pollution degree	3					
Electric shock protection class	Class I					Class III

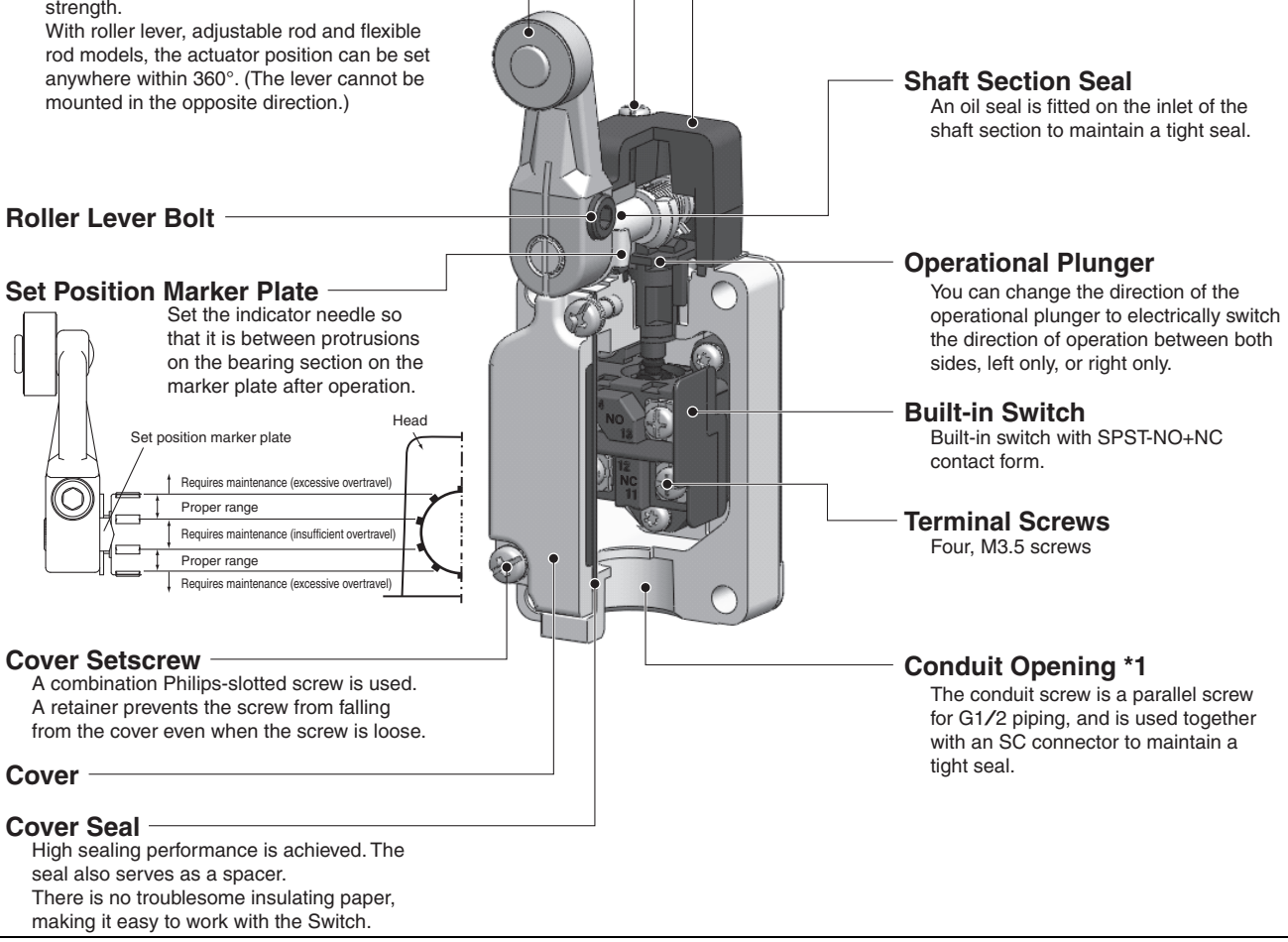
CCC (GB14048.5)

Authentication conditions	Specification						
	No indicator		Neon lamp	LED		With DC Connector	With AC Connector
Working load category	AC-15	DC-13	AC-15	AC-15	DC-13	DC-13	AC-15
Rated working voltage (Ue)	250 V	48 V	250 V	250 V	48 V	48 V	250 V
Rated working current (Ie)	2 A						
Conditional short-circuit current	1000 A						
Short-circuit protective device (SCPD)	10 A, fuse type gG						
Rated insulation voltage (Ui)	250 V						

Structure and Nomenclature

Structure

General-purpose Switches: WLCA2-N



***1.** The available conduit screws are Pg 13.5, M20 and 1/2-14 NPT.

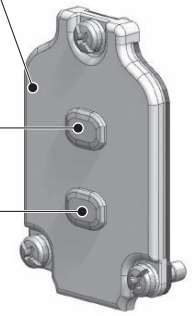
Indicators

Indicator Covers
The indicator covered if outsert molded from diecast aluminum and has outstanding sealing properties.

Indicator Windows
Operating status (i.e., light-ON when operating or light-ON when not operating) depends on whether a neon lamp or an LED is used.

Light-ON when Operating/Not Operating

Indicators can be switched from light-ON when operating and light-ON when not operating, by simply rotating the indicator holder by 180°.

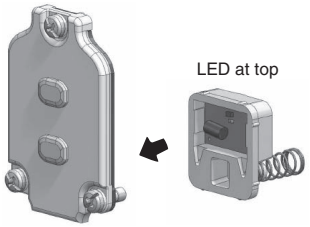


Indicator
The indicator is either a neon lamp or an LED. Switches with LED indicators have a built-in rectifier stack, so there is no connection polarity.

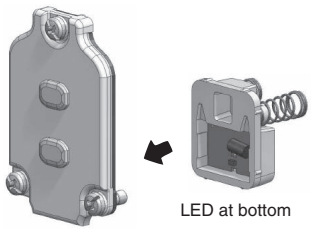
Contact Spring
Use the terminal screws on the built-in switch to connect to the lamp terminals. A coil spring is used to make contact, so connecting to the lamp terminals is not necessary.

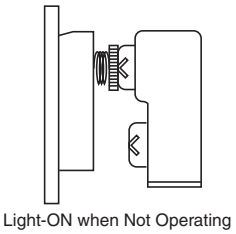
Lamp Holder

Light-ON when Operating

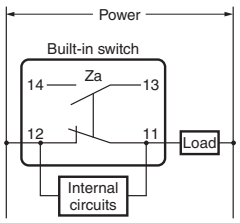
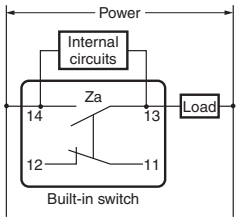


Light-ON when Not Operating

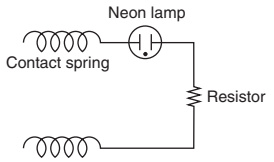
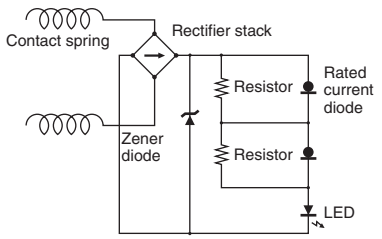




Operation

WL-LE-N WL-LD-N	**Light-ON when operating *1**	
	Light-ON when not operating *2	

Internal Circuits

WL-LE-N	
WL-LD-N	

Note: 1. Leakage current from indicator circuit may cause load malfunction (i.e., the load may remain ON). Make sure that the load operating current is higher than the leakage current.
For countermeasures, refer to technical support on your OMRON website.

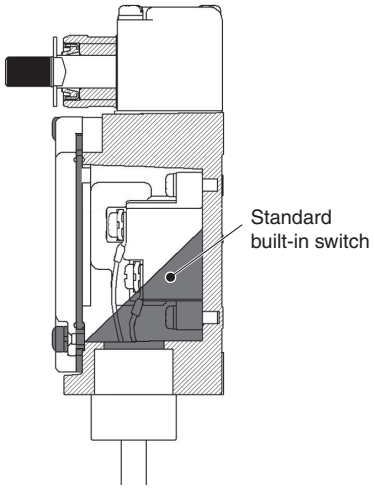
***1.** Light-ON when operating means that the lamp lights when the Limit Switch contacts (NC) release, or when the actuator rotates or is pushed down.

***2.** Light-ON when not operating means the lamp remains lit when the actuator is free, or when the Limit Switch contacts (NO) close when the actuator rotates or is pushed down.

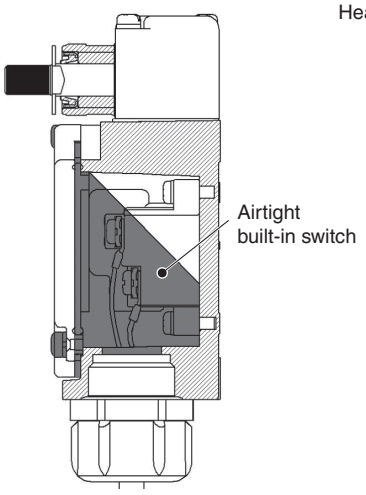
Environment-resistant Switches

Molding Specifications for Hermetic Switches : Molded parts

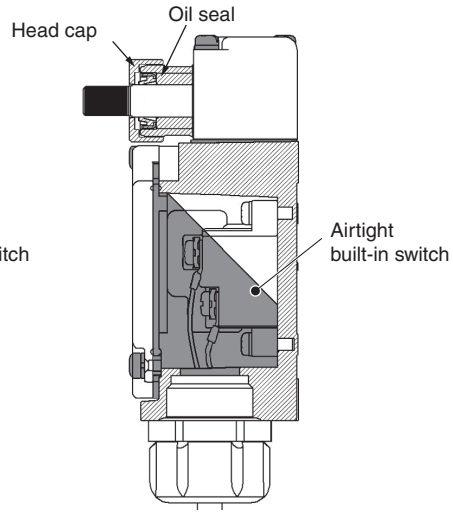
WL□-139-N



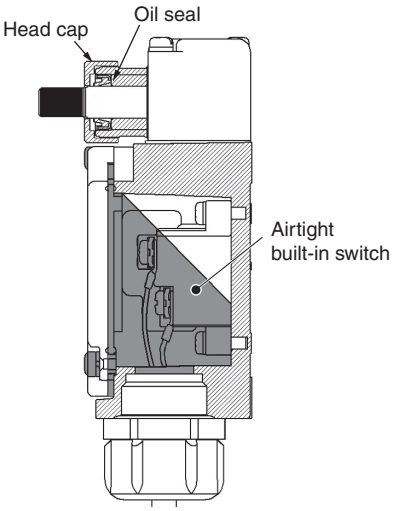
WL□-140-N



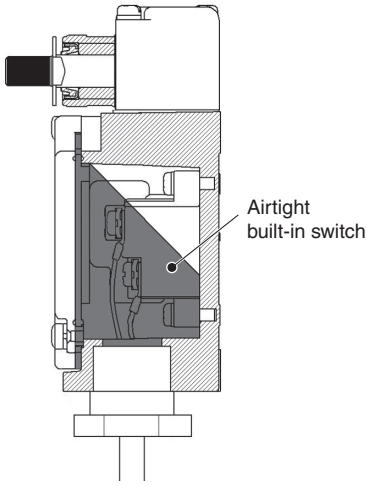
WL□-141-N



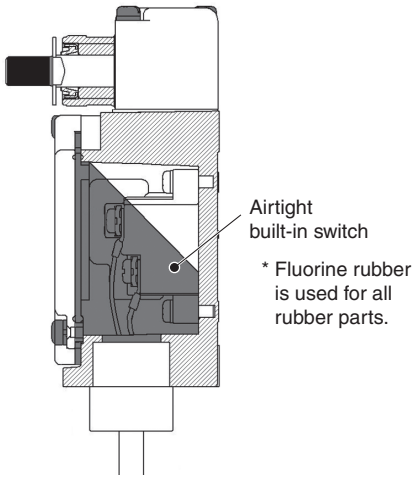
WL□-145-N



WL□-RP40-N



WL□-RP60-N



* Fluorine rubber is used for all rubber parts.

Model	Cable specifications	Connector type
WL□-139-N	Standard 5-m VCT cable, with high flexibility and good anti-oil properties attached. Finished outer diameter: 11.5 mm, 4 conductors.	Resin cap
WL□-140-N WL□-141-N WL□-145-N		Metal connector
WL□-RP40-N		Resin connector *
WL□-RP60-N		Resin cap

***** The connector can be removed, so it is possible to use flexible conduit for the cable.

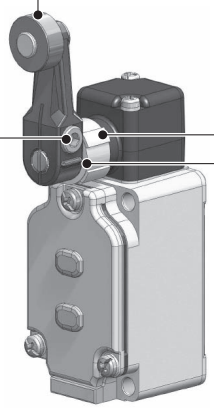
Spatter-prevention Switches: WLCA2-LES-N

Actuator

Roller, Roller Axis
Using stainless steel prevents spatter from adhering.

Operating Lever
A baking finish is applied to the surface so that any adhering spatter is easily removed.

Roller Lever Bolt
Stainless steel construction to prevent spatter adherence.
Double nut models are also available.



Screws
Externally visible screws on the head and cover are made of stainless steel to prevent spatter adherence.

Head Cap
Using fluororesin prevents spatter from adhering.
* Spatter means the zinc powder produced when welding.
Adhering spatter to the Limit Switch may cause malfunction of lever or lamp cover.

The lack of gap prevents spatter powder from clogging.

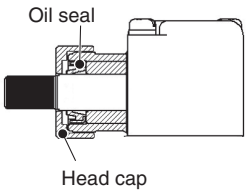
Long-life Switches

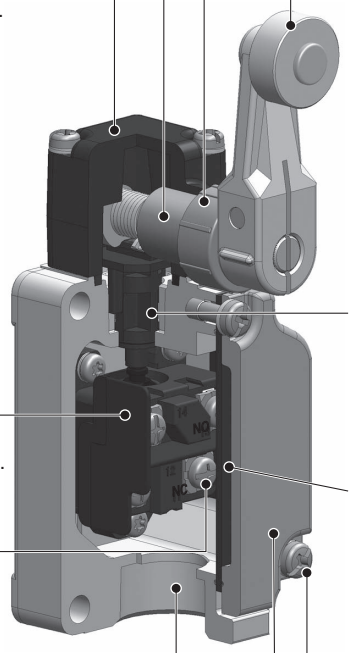
Head

You can remove the two screws to mount the head in any of the four possible directions.

Shield Structure

A head cap and oil seal form a double-seal structure. Excellent durability and reliability are ensured.





Built-in Switch

Built-in switch with an SPST-NO+NC contact form.

Terminal Screws

Four, M3.5 screws.

Conduit Opening

In addition to parallel threads for G1/2 tubing, direct-wired and pre-wired connectors have been added to the series.

Head Cap

The head cap helps prevent the entry of cutting chips. You can use the protrusion on the cap to confirm the set position.

Actuator

Roller

The roller is made of self-lubricating sintered stainless steel.
It provides superior resistance to wear.

Lever

The lever is forged from anti-corrosive aluminum alloy. It provides superior corrosion resistance and outstanding strength. With a roller lever actuator, the actuator position can be set anywhere within 360°. (The lever cannot be mounted in the opposite direction.)

Operating Plunger

PEEK resin is used. It provides superior resistance to wear. You can change the mounting direction to use any one of the three operating directions (both sides, left side, or right side).

Cover Seal

High sealing performance is achieved. The seal also serves as a spacer.
There is no troublesome insulating paper, making it easy to work with the Switch.

Cover Setscrew

A combination Philips-slotted screw is used. A retainer prevents the screw from falling from the cover even when the screw is loose.

Cover

Dimensions and Operating Characteristics

(Unit: mm)

General-purpose Switches

Standard Switches

Switches with Roller Lever Actuators

Basic, High-sensitivity, and High-precision Switches

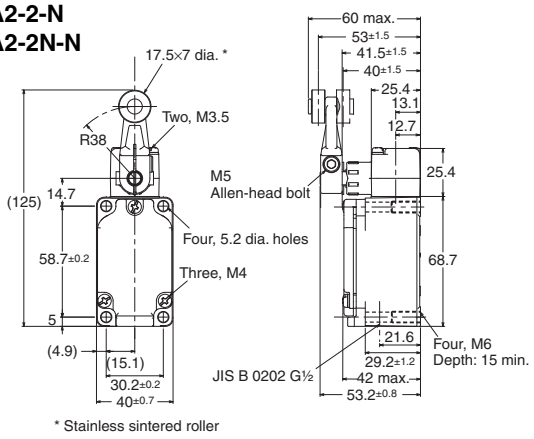
Roller lever R38

Basic **High-sensitivity** **High-precision**

WLCA2-N **WLG2-N** **WLGCA2-N**

WLCA2-2-N

WLCA2-2N-N



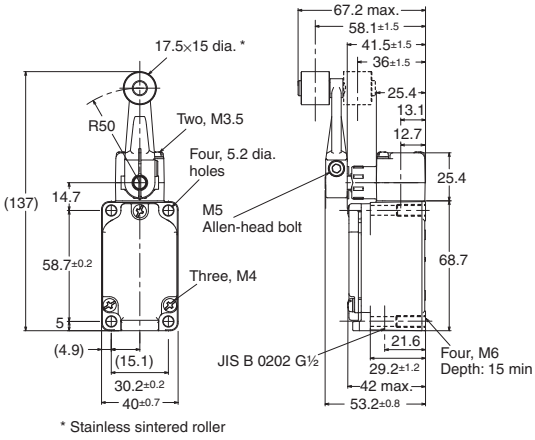
* Stainless sintered roller

The only difference in the shape for High-sensitivity and High-precision Switches is the set position marker plate.

Roller lever R50

Basic

WLCA2-7-N

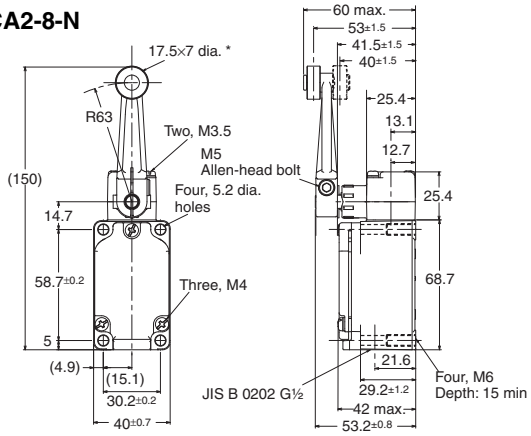


* Stainless sintered roller

Roller lever R63

Basic

WLCA2-8-N



* Stainless sintered roller

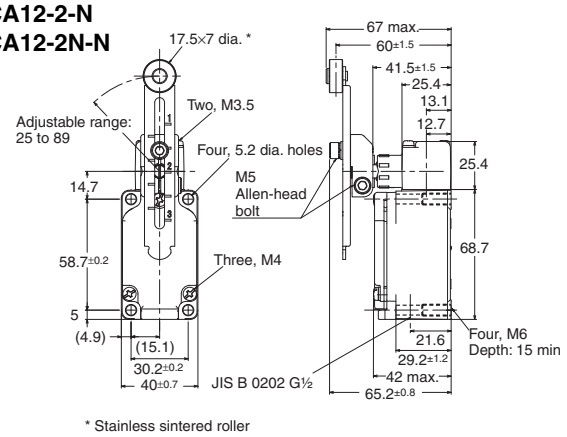
Adjustable roller lever

Basic **High-sensitivity**

WLCA12-N **WLG12-N**

WLCA12-2-N

WLCA12-2N-N



* Stainless sintered roller

Only the external appearance of the set position indicator plate varies on high-sensitivity models.

Note: Unless otherwise indicated, a tolerance of ±0.4 mm applies to all dimensions.

Operating characteristics		Model	WLCA2-N	WLCA2-2-N	WLCA2-2N-N	WLG2-N	WLCA2-7-N	WLCA2-8-N	WLGCA2-N
Operating force	OF	max.	13.34 N	13.34 N	13.34 N	13.34 N	10.2 N	8.04 N	13.34 N
Release force	RF	min.	1.18 N	1.18 N	1.18 N	1.18 N	0.9 N	0.71 N	1.18 N
Pretravel	PT		15±5°	25±5°	20° max.	$10^{\circ}{}^{+2^{\circ}}_{-1^{\circ}}$	15±5°	15±5°	$5^{\circ}{}^{+2^{\circ}}_{0^{\circ}}$
Overtravel	OT	min.	70°	60°	70°	80°	70°	70°	80°
Movement Differential	MD	max.	12°	16°	10°	7°	12°	12°	3°

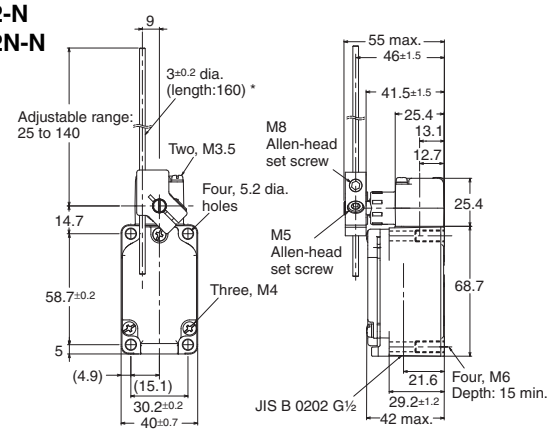
Operating characteristics		Model	WLCA12-N *1	WLCA12-2-N *1	WLG12-2N-N *1	WLG12-N *1
Operating force	OF	max.	13.34 N	13.34 N	13.34 N	13.34 N
Release force	RF	min.	1.18 N	1.18 N	1.18 N	1.18 N
Pretravel	PT		15±5°	25±5°	20° max.	$10^{\circ}{}^{+2^{\circ}}_{-1^{\circ}}$
Overtravel	OT	min.	70°	60°	70°	80°
Movement Differential	MD	max.	12°	16°	10°	7°

***1.** The operating characteristics for WLCA12-N, WLCA12-2-N, WLCA12-2N-N, and WLG12-N are measured at the lever length of 38 mm.

Switches with Roller Lever Actuators

Basic, High-sensitivity, and Protective Switches

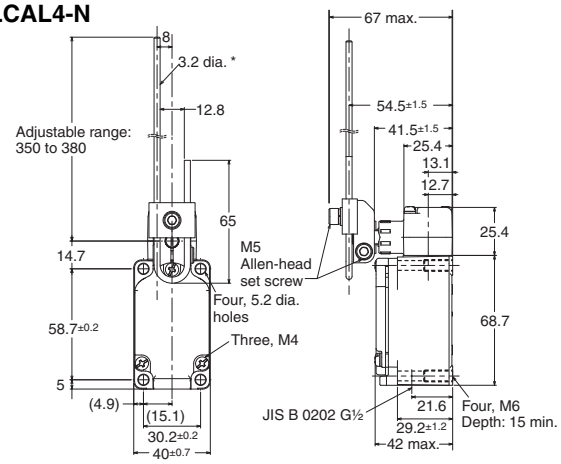
Adjustable rod lever 25 to 140 mm
Basic **High-sensitivity**
WLCL-N **WLGL-N**
WLCL-2-N
WLCL-2N-N



* Stainless steel rod

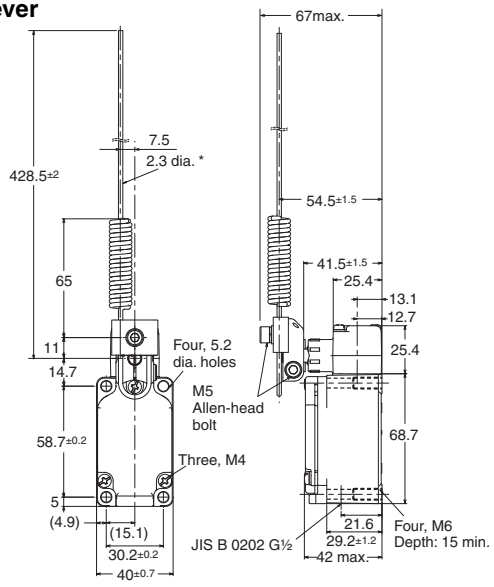
Only the external appearance of the set position indicator plate varies on high-sensitivity models.

Adjustable rod lever
Basic
WLCAL4-N



* Stainless steel rod

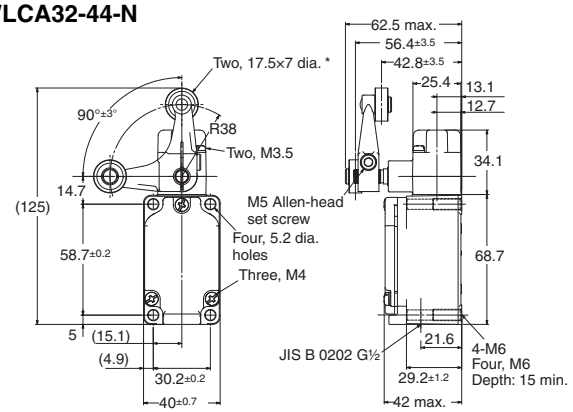
Rod spring lever
Basic
WLCAL5-N



* Piano wire

Fork lever lock
Protective Switches
WLCA32-41-N
WLCA32-42-N
WLCA32-43-N
WLCA32-44-N

The WLCA32-41-N is shown in the following diagram.



* Plastic Roller
(The WLCA32-041-N to WLCA32-044-N have stainless steel rollers.)

Note: 1. Unless otherwise indicated, a tolerance of ±0.4 mm applies to all dimensions.

Operating characteristics	Model	WLCL-N *1	WLCL-2-N *1	WLCL-2N-N *1	WLGL-N *1	WLCAL4-N *2	WLCAL5-N
Operating force	OF max.	1.39 N	1.39 N	1.39 N	2.84 N	0.98 N	0.9 N
Release force	RF min.	0.27 N	0.27 N	0.27 N	0.25 N	0.15 N	0.09 N
Pretravel	PT	15±5°	25±5°	20° max.	$10^{\circ}{}^{+2^{\circ}}_{-1^{\circ}}$	15±5°	15±5°
Overtravel	OT min.	70°	60°	70°	80°	70°	70°
Movement Differential	MD max.	12°	16°	10°	7°	12°	12°

Note: The actuator on the WLCAL4-N and WLCAL5-N is heavy, which may result in resetting problems depending on the direction the Switch is mounted. Mount the Switch so that the actuator is facing downwards to prevent this problem from occurring.
***1.** The operating characteristics for WLCL-N, WLCL-2-N, WLCL-2N-N, and WLGL-N are measured at the lever length of 140 mm.
***2.** The operating characteristics of WLCAL4-N are measured at a rod length of 380 mm.

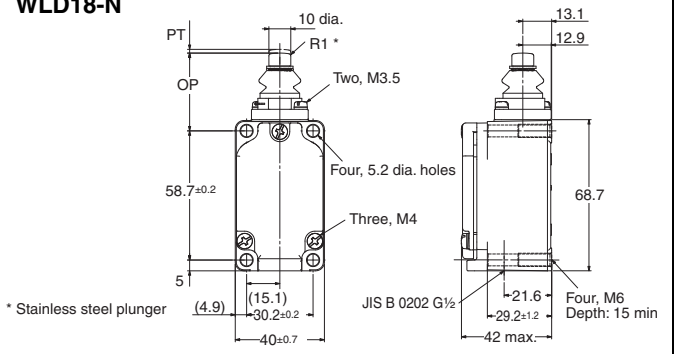
Operating characteristics	Model	WLCA32-41 to 44-N
Force necessary to reverse the direction of the lever	max.	11.77 N
Movement until the lever reverses		50±5°
Movement until switch operation	max.	55°
Movement after switch operation	min.	35°

Switches with Plunger Actuators

Basic Switches

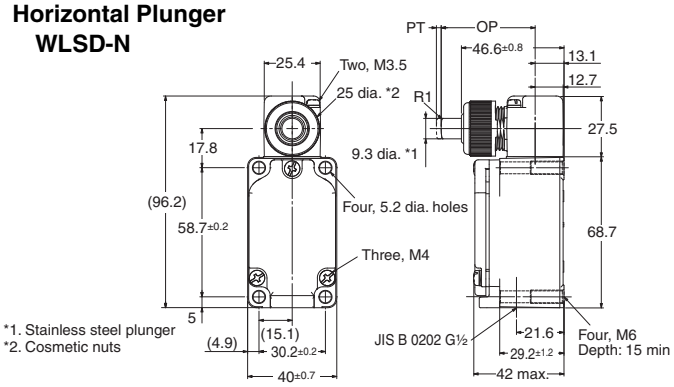
Sealed Top Plunger

WLD18-N



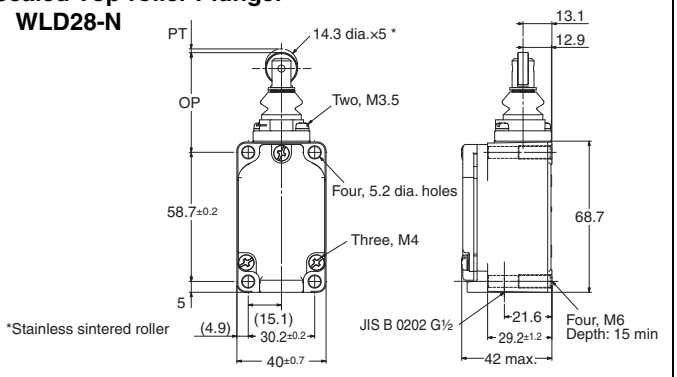
Horizontal Plunger

WLSD-N



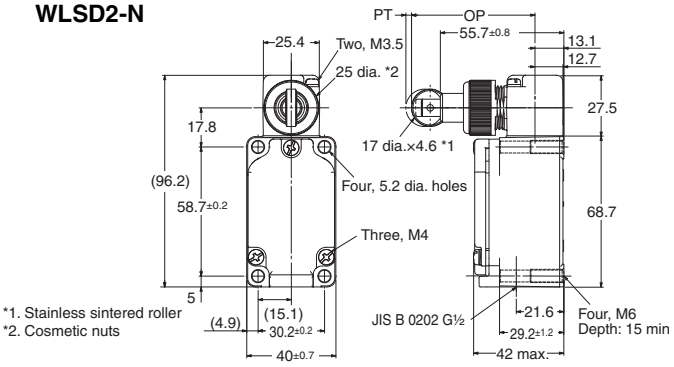
Sealed Top-roller Plunger

WLD28-N



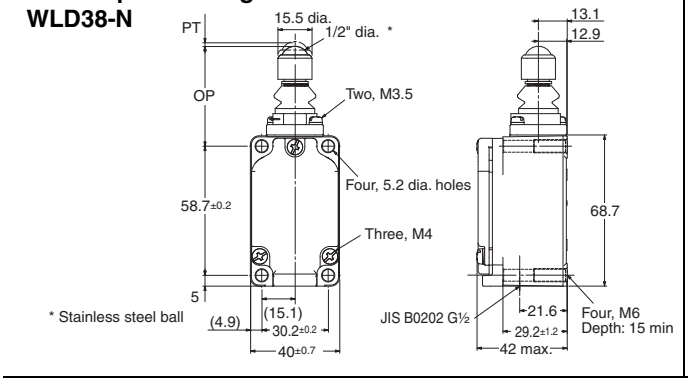
Horizontal-roller Plunger

WLSD2-N



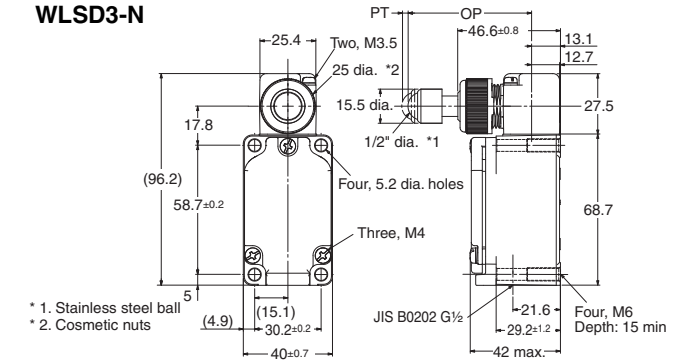
Sealed Top-ball Plunger

WLD38-N



Horizontal-ball Plunger

WLSD3-N



Note: Unless otherwise indicated, a tolerance of ±0.4 mm applies to all dimensions.

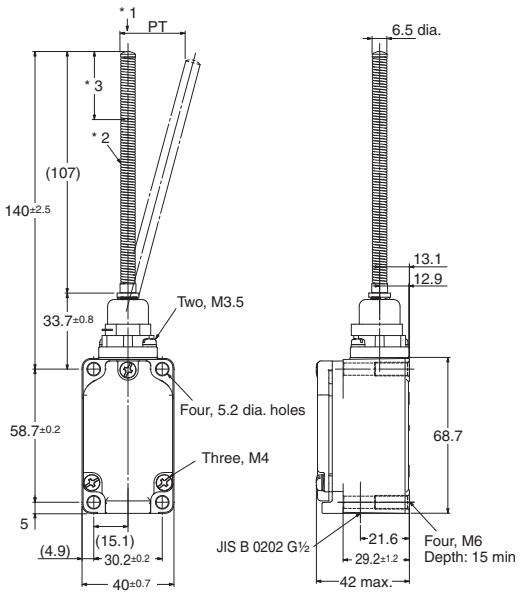
Operating characteristics		Model	WLD18-N	WLD28-N	WLD38-N	WLSD-N	WLSD2-N	WLSD3-N
Operating force	OF	max.	26.67 N	16.67 N	16.67 N	40.03 N	40.03 N	40.03 N
Release force	RF	min.	8.92 N	4.41 N	4.41 N	8.89 N	8.89 N	8.89 N
Pretravel	PT	max.	1.7 mm	1.7 mm	1.7 mm	2.8 mm	2.8 mm	2.8 mm
Overtravel	OT	min.	6.4 mm	5.6 mm	5.6 mm	6.4 mm	5.6 mm	4 mm
Movement Differential	MD	max.	1 mm	1 mm	1 mm	1 mm	1 mm	1 mm
Operating position	OP		34±0.8 mm	44±0.8 mm	44.5±0.8 mm	40.6±0.8 mm	54.2±0.8 mm	54.1±0.8 mm
Total travel position	TTP	max.	29.5 mm	39.5 mm	41 mm	—	—	—

Switches with Flexible Rod Actuators

Basic Switches

Coil Spring

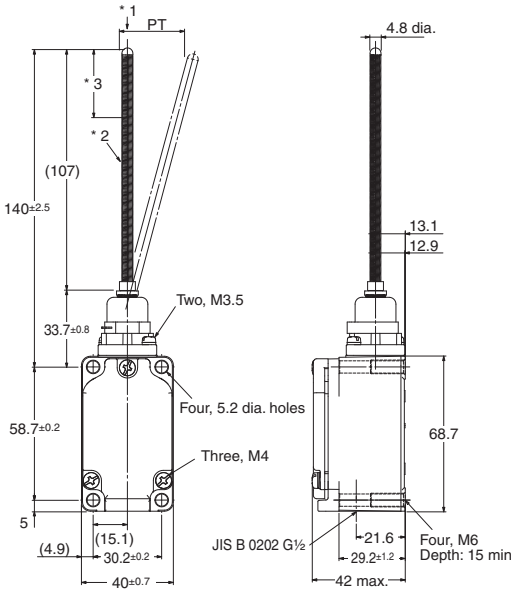
WLNJ-N



*1. Do not operate the Switch in the direction of the axial center.
*2. Stainless steel coil spring.
*3. The range for operation is 1/3rd of the overall spring length from the end of the spring.

Coil Spring (Multi-wire)

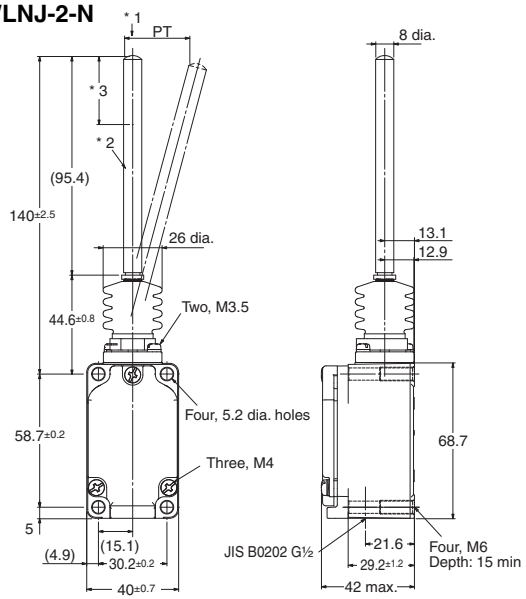
WLNJ-30-N



*1. Do not operate the Switch in the direction of the axial center.
*2. Piano wire coil spring.
*3. The range for operation is 1/3rd of the overall spring length from the end of the spring.

Resin Rod

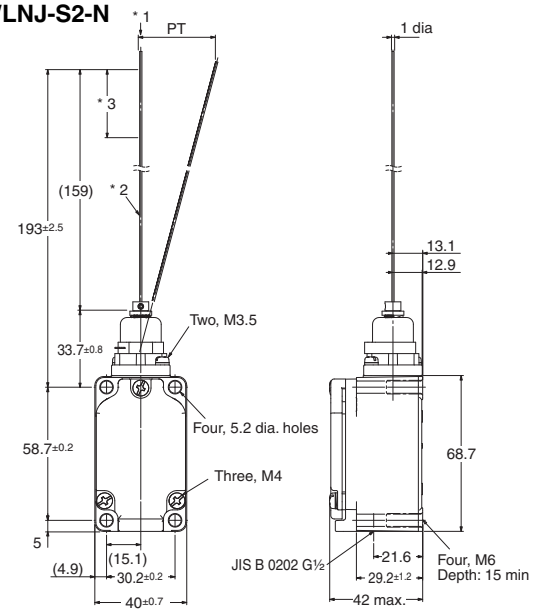
WLNJ-2-N



*1. Do not operate the Switch in the direction of the axial center.
*2. Polyamide Resin Rod
*3. The range for operation is 1/3rd of the overall rod length from the end of the rod.

Steel Wire

WLNJ-S2-N



*1. Do not operate the Switch in the direction of the axial center.
*2. Stainless steel wire.
*3. The range for operation is 1/3rd of the overall wire length from the end of the wire.

Note: Unless otherwise indicated, a tolerance of ±0.4 mm applies to all dimensions.

Operating characteristics	Model	WLNJ-N	WLNJ-30-N	WLNJ-2-N	WLNJ-S2-N
Operating force	**OF Max.**	1.47 N	1.47 N	1.47 N	0.28 N
Pretravel	**PT**	20±10 mm	20±10 mm	40±20 mm	40±20 mm

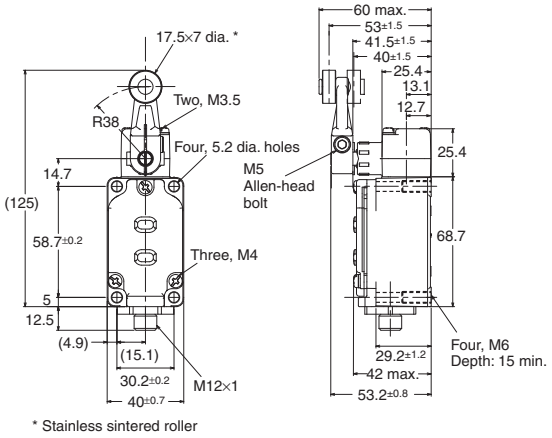
***** These values are for the top end of the spring, rod, or wire.

Sensor I/O connector Switches

(For details about applicable cables, refer to ***Connecting Sensor I/O Connectors Cable and Socket*** on page 16.)

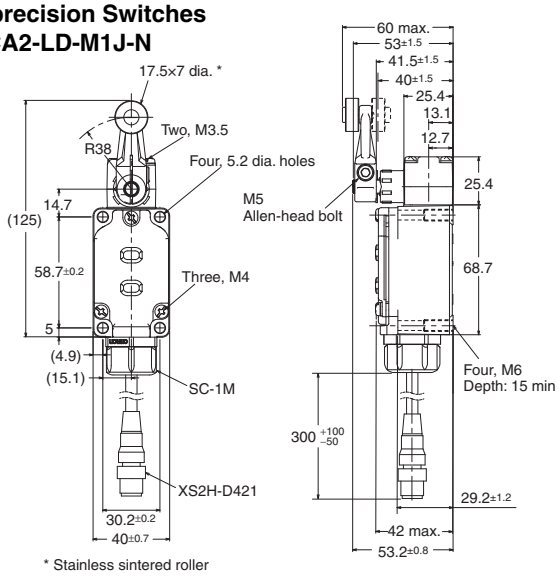
Switches with Roller Lever Actuators

Switches with Direct-wired Connectors
Basic Switches
WLCA2-LDK13-N
High-sensitivity Switches
WLG2-LDK13-N
High-precision Switches
WLGCA2-LDK13-N



The only difference in the shape for High-sensitivity and High-precision Switches is the set position marker plate.

Switches with Pre-wired Connectors
Basic Switches
WLCA2-LD-M1J-N
High-sensitivity Switches
WLG2-LD-M1J-N
High-precision Switches
WLGCA2-LD-M1J-N



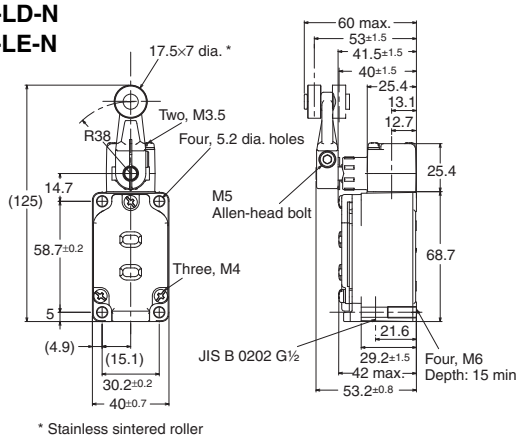
The only difference in the shape for High-sensitivity and High-precision Switches is the set position marker plate.

Note: 1. Unless otherwise indicated, a tolerance of ±0.4 mm applies to all dimensions.
2. The following diagrams are for a indicator-equipped models.

Operating characteristics	Model	Basic Switches	High-sensitivity Switches	High-precision Switches
Operating force	OF max.	13.34 N	13.34 N	13.34 N
Release force	RF min.	1.18 N	1.18 N	1.18 N
Pretravel	PT	15±5°	10° +2° −1°	5° +2° −0°
Overtravel	OT min.	70°	80°	80°
Movement Differential	MD max.	12°	7°	3°

Operation indicator Switches

Roller lever
WLCA2-LD-N
WLCA2-LE-N



Operating characteristics	Model	WLCA2-LD-N WLCA2-LE-N
Operating force	OF max.	13.34 N
Release force	RF min.	1.18 N
Pretravel	PT	15±5°
Overtravel	OT min.	70°
Movement Differential	MD max.	12°

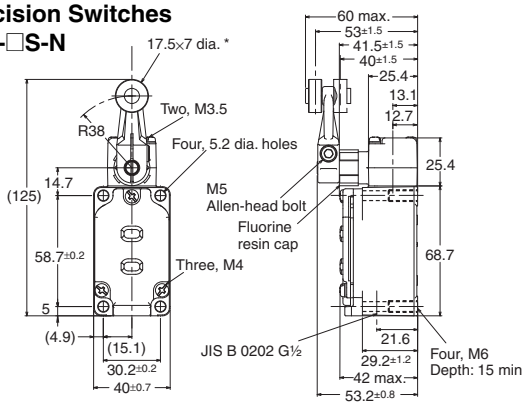
Note: 1. Unless otherwise indicated, a tolerance of ±0.4 mm applies to all dimensions.

Spatter-prevention Switches

Switches with Roller Lever Actuators

Switches with Screw Terminals

Basic Switches
WLCA2-□S-N
High-sensitivity Switches
WLG2-□S-N
High-precision Switches
WLGCA2-□S-N

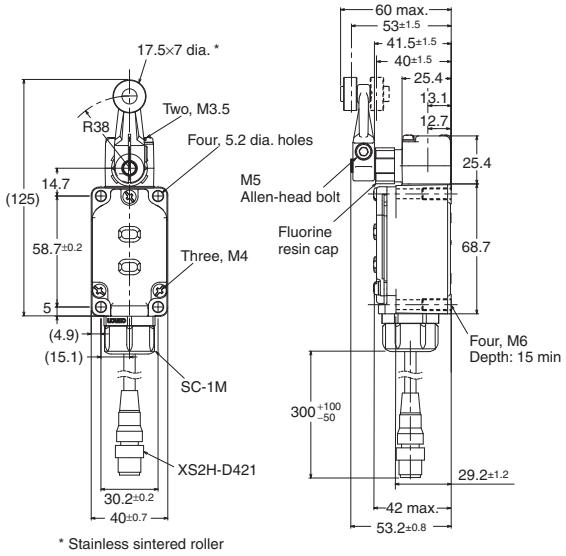


* Stainless sintered roller

The only difference in the shape for High-sensitivity and High-precision Switches is the set position marker plate.

Switches with Pre-wired Connectors

WLCA2-□S-M1J-N

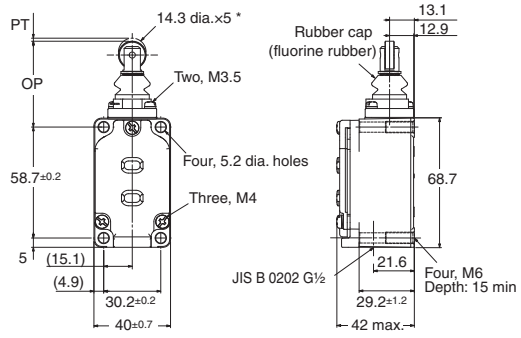


* Stainless sintered roller

Switches with Sealed Top-roller Plungers

Switches with Screw Terminals

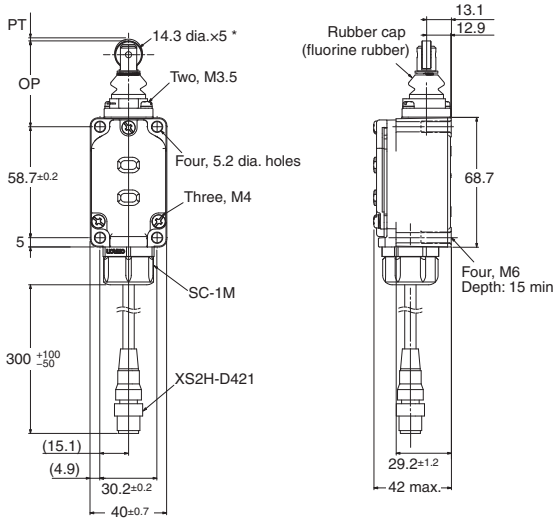
WLD28-□S-N



*Stainless sintered roller

Switches with Pre-wired Connectors

WLD28-□S-M1J-N



*Stainless sintered roller

Note: 1. Unless otherwise indicated, a tolerance of ±0.4 mm applies to all dimensions.
2. The above diagrams are for Indicator-equipped Switches.

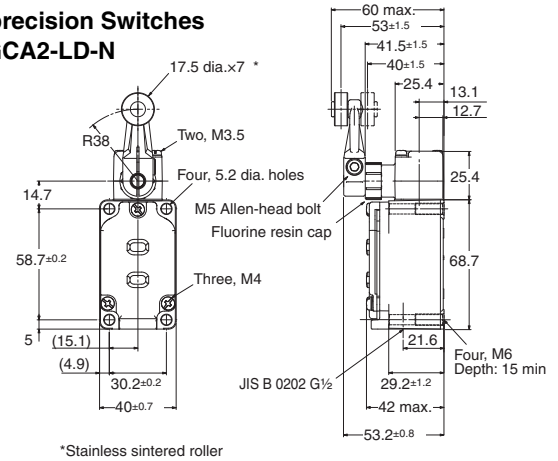
Operating characteristics	Actuator	Switches with Roller Lever Actuators			Switches with Sealed Top-roller Plungers
		Basic Switches	High-sensitivity Switches	High-precision Switches	
Operating force	**OF max.**	13.34 N	13.34 N	13.34 N	16.67 N
Release force	**RF min.**	1.18 N	1.18 N	1.18 N	4.41 N
Pretravel	**PT**	15±5°	10° +2° −1°	5° +2° 0°	Max.1.7 mm
Overtravel	**OT min.**	70°	80°	80°	5.6 mm
Movement Differential	**MD max.**	12°	7°	3°	1 mm
Operating position	**OT**	—	—	—	44±0.8 mm
Total travel position	**TTP max.**	—	—	—	39.5 mm

Long-life Switches

Switches with Roller Lever Actuators

Switches with Screw Terminals

Basic Switches
WLMCA2-LD-N
High-sensitivity Switches
WLMG2-LD-N
High-precision Switches
WLMGCA2-LD-N

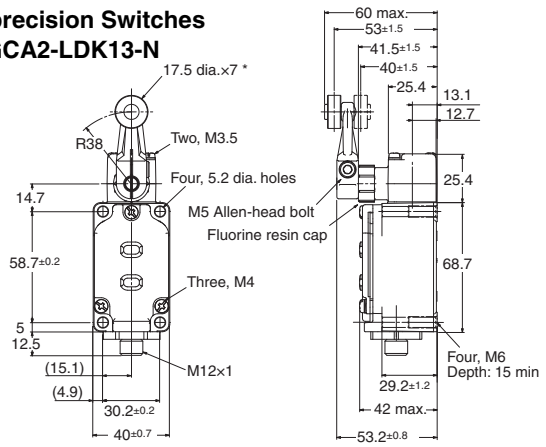


*Stainless sintered roller

The only difference in the shape for High-sensitivity and High-precision Switches is the set position marker plate.

Switches with Direct-wired Connectors

Basic Switches
WLMCA2-LDK13-N
High-sensitivity Switches
WLMG2-LDK13-N
High-precision Switches
WLMGCA2-LDK13-N

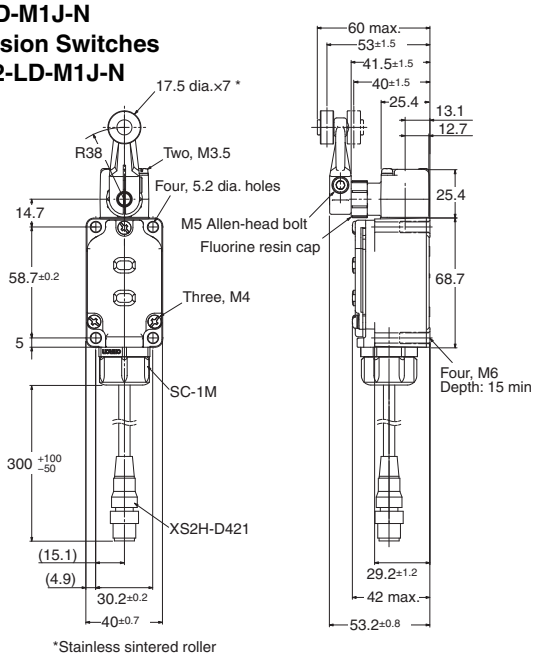


*Stainless sintered roller

The only difference in the shape for High-sensitivity and High-precision Switches is the set position marker plate.

Switches with Pre-wired Connectors

Basic Switches
WLMCA2-LD-M1J-N
High-sensitivity Switches
WLMG2-LD-M1J-N
High-precision Switches
WLMGCA2-LD-M1J-N



*Stainless sintered roller

The only difference in the shape for High-sensitivity and High-precision Switches is the set position marker plate.

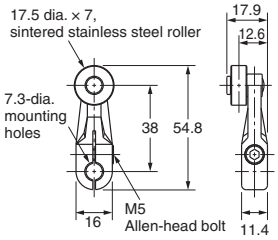
Note: 1. Unless otherwise indicated, a tolerance of ±0.4 mm applies to all dimensions.
2. The above diagrams are for Indicator-equipped Switches.

Operating characteristics	Actuator		Switches with Roller Lever Actuators		
			Basic Switches	High-sensitivity Switches	High-precision Switches
Operating force	OF	max.	13.34 N	13.34 N	13.34 N
Release force	RF	min.	1.18 N	1.18 N	1.18 N
Pretravel	PT		15±5°	10° +2° −1°	5° +2° 0°
Overtravel	OT	min.	70°	80°	80°
Movement Differential	MD	max.	12°	7°	3°

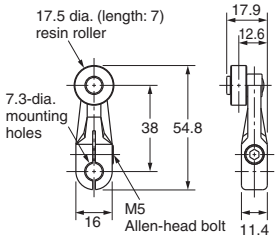
Actuators (Levers Only)

Lever: Only rotating lever models are illustrated.

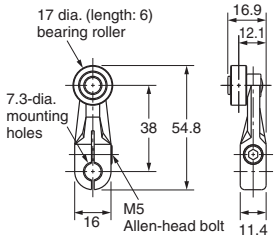
WL-1A100
Standard Lever



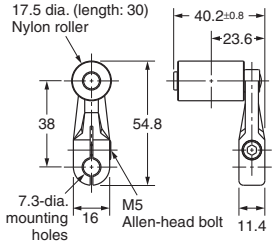
WL-1A115
Resin Roller



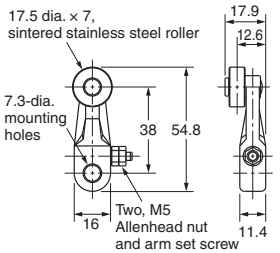
WL-1A400
Bearing Roller



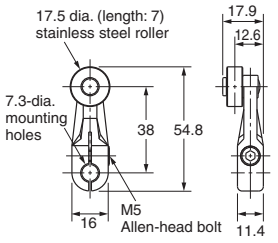
WL-1A118
Nylon Roller:
Roller Width: 30 mm



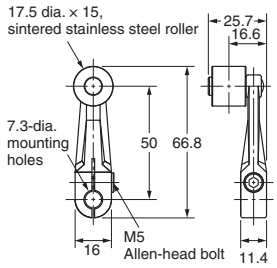
WL-1A105
Double Nuts



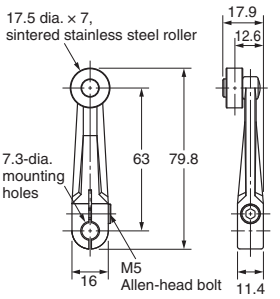
WL-1A103S
Spatter



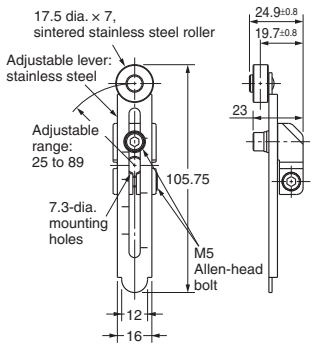
WL-1A200
Lever Length: 50
Roller Width: 15



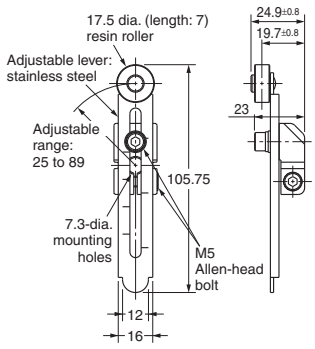
WL-1A300
Lever Length: 63



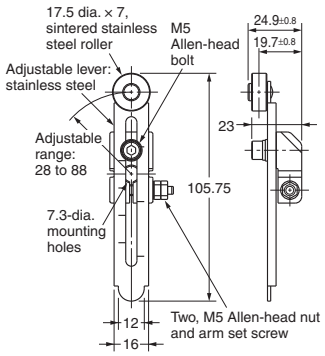
WL-2A100



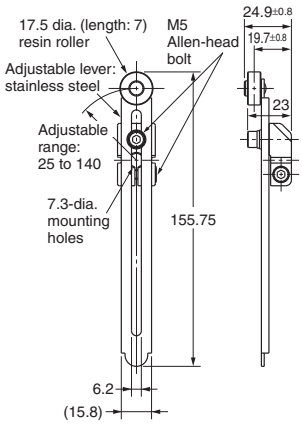
WL-2A111
Resin Roller



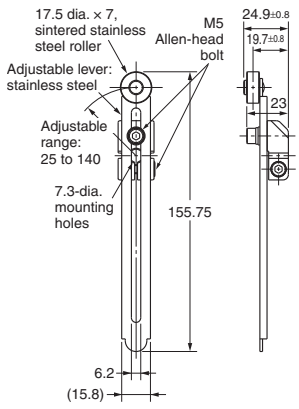
WL-2A107
Double Nuts



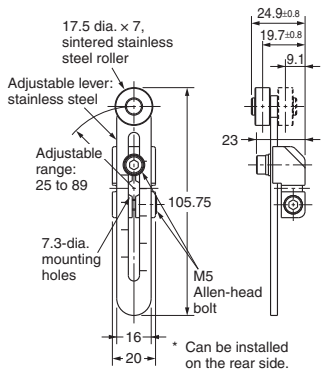
WL-2A108
Resin Roller



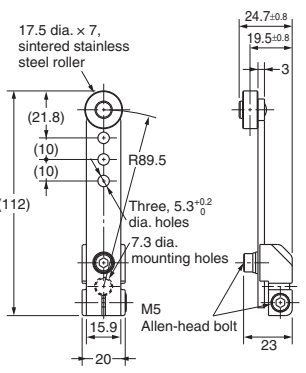
WL-2A122



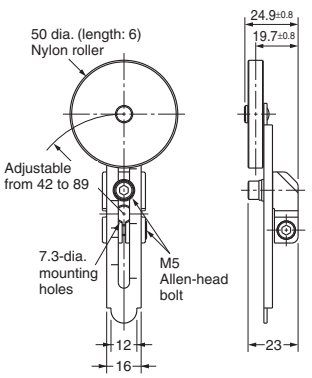
WL-2A106



WL-2A130

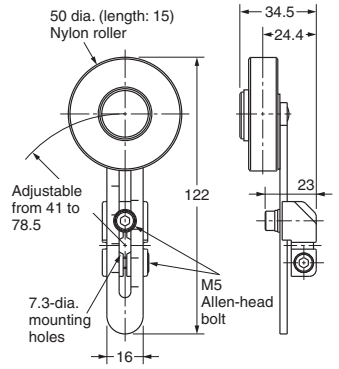


WL-2A104

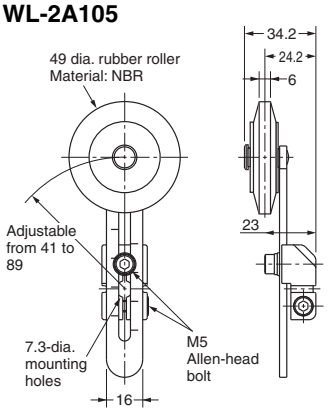


Note: 1. Unless otherwise indicated, a tolerance of ±0.4 mm applies to all dimensions.
Lever: Only rotating lever models are illustrated.

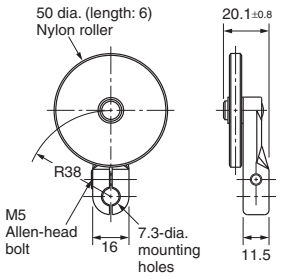
WL-2A110



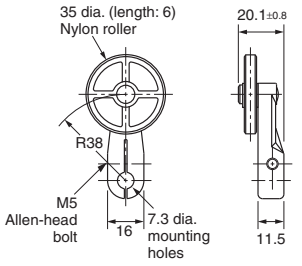
WL-2A105



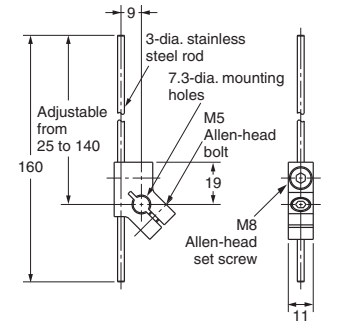
WL-1A106



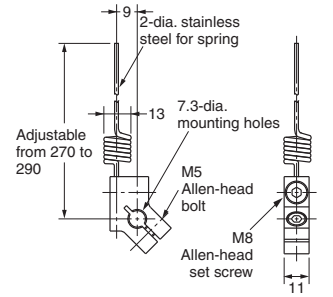
WL-1A110



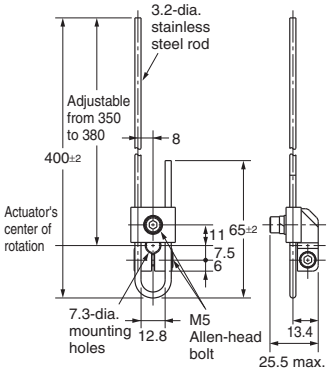
WL-4A100



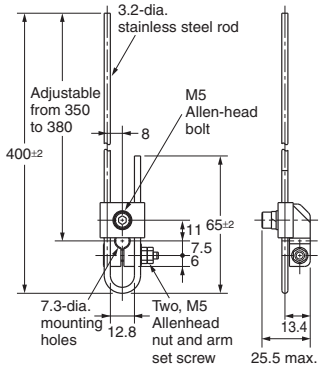
WL-4A201



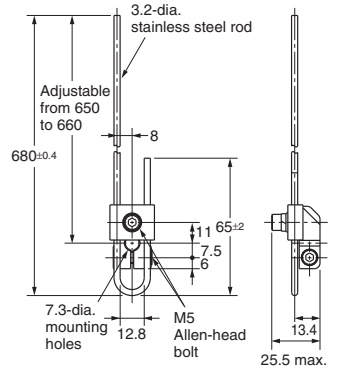
WL-3A100



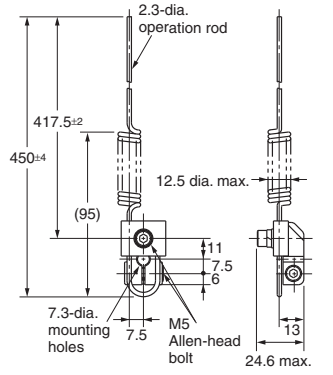
WL-3A106
Double Nut



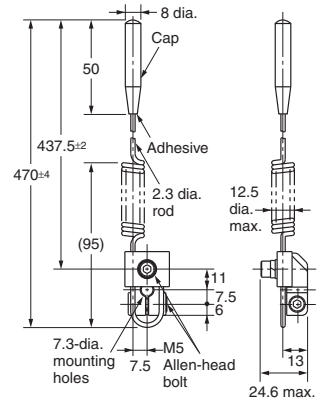
WL-3A108



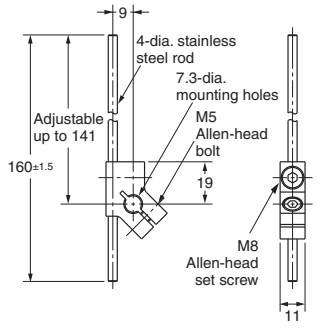
WL-3A200



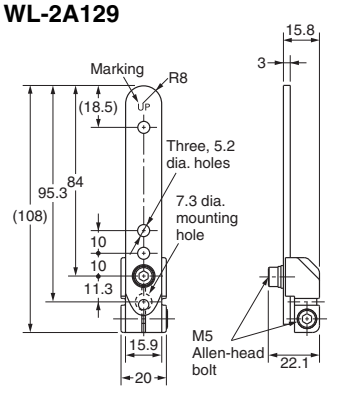
WL-3A203



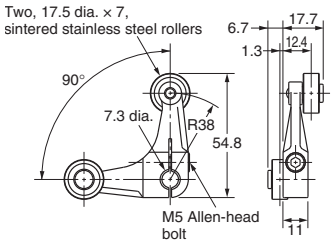
WL-4A112



WL-2A129

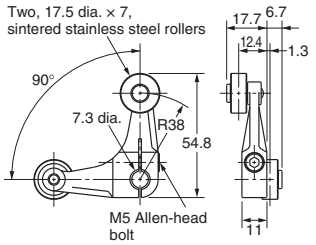


WL-5A101



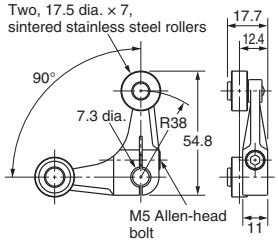
WL-5A100 has a plastic roller

WL-5A103



WL-5A102 has a plastic roller

WL-5A105



WL-5A104 has a plastic roller

Note: 1. Unless otherwise indicated, a tolerance of ±0.4 mm applies to all dimensions.
2. When using the adjustable roller (rod) lever, make sure that the lever is facing downwards. Use caution, as telegraphing (the Switch turns ON and OFF repeatedly due to inertia) may occur.