





Model Number Structure

List of Models





Roller lever




Type of Switches	Operating environment		Indicator		Actuator Wiring Specifications	R38 	R50 	R63 	Adjustable Roller Lever (R25 to 89 mm) 	Page
General-purpose Switches	Ambient operating temperature (-10 to 80°C)		Without operation indicator		Screw terminals	○*	○	○	○*	page 5
			With operation indicator	LED		○*	○	○	○*	
				Neon lamp		○*	○	○	○*	
			With operation indicator	LED	Direct-wire connector	○*	---	---	---	
			With operation indicator	LED	Pre-wired Connector	○*	---	---	---	
Environment-resistant Switches	Ambient operating temperature (5 to 120°C)	TH	Without operation indicator		Screw terminals	○	---	---	○	page 33
	Ambient operating temperature (-40 to 40°C)	TC				○	---	---	○	
	Chemicals and oil	RP				○	---	---	○	
	Outdoors	P1				○	---	---	○	
	Coolant drops and mist	RP60			Direct-wire cable	○	---	---	○	
	Mist (Improved sealing for conduit opening and cover)	139 RP40				○	---	---	○	
	Constant water drops and mist (Molded conduit opening and cover.)	140				○	---	---	○	
	Constant water drops or splattering cutting powder (Preventing intrusion of cutting powder through molded conduit opening, cover, and head seal, and a head cap)	141 145				○	---	---	○	
Spatter-prevention Switches	Spattering from welding		With operation indicator	LED	Screw terminals	○	---	---	---	page 51
				Neon lamp		○	---	---	---	
				LED	Pre-wired connectors	○	---	---	---	
Long-life Switches	High-durability		With operation indicator	LED	Screw terminals	○	---	---	---	page 62
				LED	Pre-wired connectors	○	---	---	---	

Note: 1. ○ indicates features included in the ordered model.

2. Models with airtight built-in switch specifications suitable for use in water drop or mist atmospheres are also available.
Ask your OMRON representative for details.

Plunger Actuators

Type	Operating environment		Indicator		Actuator Wiring Specifications	Sealed top-roller plunger 	Top-roller plunger 	Sealed top plunger 	Sealed top-ball plunger 	Page
General-purpose Switches	Ambient operating temperature (-10 to 80°C)		Without operation indicator		Screw terminals	○*	○*	○	○	page 5
			With operation indicator	LED		○*	○	○	○	
				Neon lamp	Direct-wire connector	○*	○	○	○	
			With operation indicator	LED		○*	---	---	---	
Environment-resistant Switches	Ambient operating temperature (5 to 120°C)	TH	Without operation indicator		Screw terminals	○	○	---	---	page 33
	Ambient operating temperature (-40 to 40°C)	TC				○	---	---	---	
	Chemicals and oil	RP				○	---	---	---	
	Outdoors	P1				---	---	---	---	
	Coolant drops and mist	RP60			Direct-wire cable	○	---	---	---	
	Mist (Improved sealing for conduit opening and cover)	139 RP40				○	○	---	---	
	Constant water drops and mist (Molded conduit opening and cover.)	140				○	---	---	---	
	Constant water drops or splattering cutting powder (Preventing intrusion of cutting powder through molded conduit opening, cover, and head seal, and a head cap)	141 145				○	○	---	---	
Spatter-prevention Switches	Spattering from welding		With operation indicator	LED	Screw terminals	○	---	---	---	page 51
				Neon lamp		○	---	---	---	
				LED	Pre-wired connectors	○	---	---	---	





Type	Operating environment		Indicator		Actuator Wiring Specifications	Horizontal plunger 	Horizontal-roller plunger 	Horizontal-ball plunger 	Page
General-purpose Switches	Ambient operating temperature (-10 to 80°C)		Without operation indicator		Screw terminals	○*	○*	○	page 5
			With operation indicator	LED		○	○	○	
				Neon lamp	Direct-wire connector	---	---	---	
			With operation indicator	LED	Pre-wired connectors	---	---	---	
Environment-resistant Switches	Ambient operating temperature (5 to 120°C)	TH	Without operation indicator		Screw terminals	○	○	---	page 33
	Ambient operating temperature (-40 to 40°C)	TC				○	○	---	
	Chemicals and oil	RP				○	○	---	
	Outdoors	P1				---	---	---	
	Coolant drops and mist	RP60			Direct-wire cable	○	○	---	
	Mist (Improved sealing for conduit opening and cover)	139 RP40				○	---	---	
	Constant water drops and mist (Molded conduit opening and cover.)	140				---	○	---	
	Constant water drops or splattering cutting powder (Preventing intrusion of cutting powder through molded conduit opening, cover, and head seal, and a head cap)	141 145				○	○	---	
Spatter-prevention Switches	Spattering from welding		With operation indicator	LED	Screw terminals	---	---	---	page 51
				Neon lamp		---	---	---	
				LED	Pre-wired connectors	---	---	---	

Note: 1. ○ indicates features included in the ordered model.

2. Models with airtight built-in switch specifications suitable for use in water drop or mist atmospheres are also available.
Ask your OMRON representative for details.

Flexible Rod Actuators





					Actuator	Adjustable rod lever (25 to 140 mm)	Adjustable rod lever (350 to 380 mm)	Rod spring lever	Page
Type	Operating environment		Indicator		Wiring Specifications				
General-purpose Switches	Ambient operating temperature (-10 to 80°C)		Without operation indicator		Screw terminals	○*	○	○	page 5
			With operation indicator	LED		○	---	---	
				Neon lamp		---	---	---	
			With operation indicator	LED	Direct-wire connector	○	○	○	
		With operation indicator	LED	Pre-wired connectors	○	○	○		
Environment-resistant Switches	Ambient operating temperature (5 to 120°C)	TH	Without operation indicator		Screw terminals	○	---	---	page 33
	Ambient operating temperature (-40 to 40°C)	TC				○	---	---	
	Chemicals and oil	RP				○	---	---	
	Outdoors	P1				○	---	---	
	Coolant drops and mist	RP60	Direct-wire cable	○	---	---			
	Mist (Improved sealing for conduit opening and cover)	139 RP40		○	---	---			
	Constant water drops and mist (Molded conduit opening and cover.)	140		○	---	---			

					Actuator		Coil spring (6.5 dia.)	Coil spring (4.8 dia.)	Resin rod (8 dia.)	Steel wire (1 dia.)	Page
Type	Operating environment		Indicator		Wiring Specifications						
General-purpose Switches	Ambient operating temperature (-10 to 80°C)		Without operation indicator		Screw terminals	○*	○	○*	○	page 5	
			With operation indicator	LED		○*	○	○*	○		
				Neon lamp		○*	○	○*	○		
			With operation indicator	LED	Direct-wire connector	---	---	---	---		
			With operation indicator	LED	Pre-wired Connector	---	---	---	---		
Environment- resistant Switches	Ambient operating temperature (5 to 120°C)	TH	Without operation indicator		Screw terminals	○	---	---	---	page 33	
	Ambient operating temperature (-40 to 40°C)	TC				○	---	---	---		
	Chemicals and oil	RP				○	---	---	---		
	Outdoors	P1				---	---	○	---		
	Coolant drops and mist	RP60			Direct-wire cable	○	---	○	---		
	Mist (Improved sealing for conduit opening and cover)	139 RP40				○	---	○	---		
	Constant water drops and mist (Molded conduit opening and cover.)	140				○	---	○	---		

Note: 1. ○ indicates features included in the ordered model.

2. Models with airtight built-in switch specifications suitable for use in water drop or mist atmospheres are also available. Ask your OMRON representative for details.

Fork Lock Lever Actuators

					Actuator	Fork Lock Lever A 	Fork Lock Lever B 	Fork Lock Lever C 	Fork Lock Lever D 	Page
Type	Operating environment	Indicator		Wiring Specifications						
General-purpose Switches	Ambient operating temperature (-10 to 80°C)	Without operation indicator		Screw terminals						page 5
		With operation indicator	LED			---		---		
			Neon lamp							
		With operation indicator	LED	Direct-wire connector	---	---	---	---		
With operation indicator	LED	Pre-wired connectors	---	---	---	---				

Note: ○ indicates features included in the ordered model.

General-purpose Switches

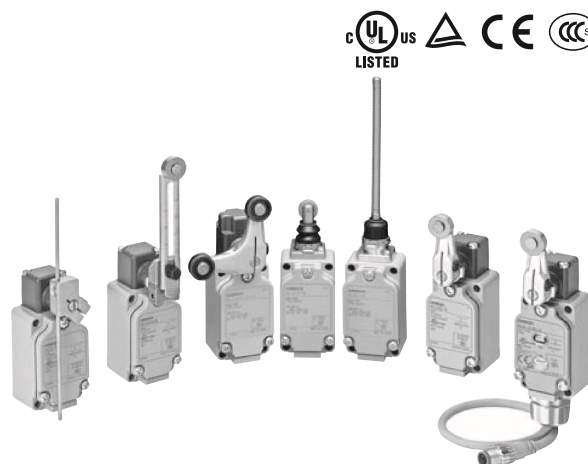
WL-N/WL

Wide variety of head shapes to match the operating environment and application

- Wide variety of head shapes, including Roller Lever, Plunger, Flexible Rod, and Fork Lock Lever Switches. Wide variety of head shapes for fork lock lever
- You can select the optimum actuator shape for the workpiece shape and movement from a variety of actuators. Enables selection of optimum shape
- Degree of Protection; IP67
- Operation indicators (LED/neon lamps) for enabling simple daily inspection are available
- In addition to regular screw terminals, direct-wire and pre-wired connectors are also available based on the wiring specifications



Be sure to read *Safety Precautions* on pages 83 to 88 and *Safety Precautions for All Limit Switches*.



For the most recent information on models that have been certified for safety standards, refer to the OMRON website.

Features

A type with operation indicators for easily confirming operation is available

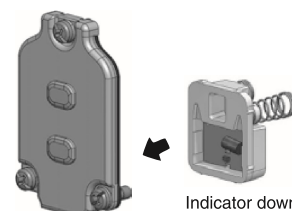
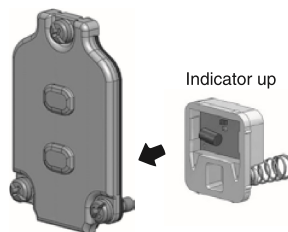
Indicates the operation status of the switches using LEDs and neon lamps.



The light-ON when operating status and the light-ON when not operating status can be easily switched by turning the lamp holder 180°.

Light-ON when Operating

Light-ON when Not Operating



Selectable based on wiring specifications



Screw terminals



Direct-wire connector



Pre-wired connector

Pre-wired connectors include Smartclick products that turn by only 1/8-turn when attaching and removing. This reduces the labor required for connections and maintenance.



Smartclick

General-purpose Switches

Environment-resistant Switches

Spatter-prevention Switches

Long-life Switches

Accessories

Safety Precautions

Model Number Structure

Model Number Legend (Not all combinations are possible. Ask your OMRON representative for details.)





Basic models

WL□ - □□□□ - N
(1) (2) (3) (4) (5)

(1) Actuator and Property Specifications

Code	Actuator		Pretravel (PT)
CA2	Roller Lever	Roller lever: R38 mm	15±5°
CA2-2			25±5°
CA2-2N			20° max.
CA2-7		Roller lever: R50 mm	15±5°
CA2-8		Roller lever: R63 mm	15±5°
CA12		Adjustable roller lever (R25 to 89 mm)	15±5°
CA12-2			25±5°
CA12-2N			20° max.
D28	Plunger Actuators	Sealed top-roller plunger	1.7 mm max.
D2		Top-roller plunger	1.7 mm max.
D18		Sealed top plunger	1.7 mm max.
D38		Sealed top-ball plunger	1.7 mm max.
SD		Horizontal plunger	2.8 mm max.
SD2		Horizontal-roller plunger	2.8 mm max.
SD3		Horizontal-ball plunger	2.8 mm max.
CL	Flexible Rod Actuators	Adjustable Rod Lever (25 to 140 mm)	15±5°
CL-2			25±5°
CL-2N			20° max.
CAL4		Adjustable Rod Lever (350 to 380 mm)	15±5°
CAL5		Rod spring lever	15±5°
NJ		Coil spring (6.5 dia.)	20±10 mm
NJ-30		Coil spring (4.8 dia.)	20±10 mm
NJ-2		Flexible rod: Resin rod (8 dia.)	40±20 mm
NJ-S2		Flexible rod: Steel wire (1 dia.)	40±20 mm
CA32-41	Fork Lock Lever *	A	55° max.
CA32-42		B	55° max.
CA32-43		C	55° max.
CA32-44		D	55° max.

* The lever attachment method varies in A to D.

A	B	C	D
			

(2) Built-in Switch Specifications

Code	Specifications
None	Standard
55	Airtight built-in switch

(3) Conduit Size, Ground Terminal Specifications

Code	Specifications
-	G1/2 without ground terminal
G1	G1/2 with ground terminal *
G	Pg13.5 with ground terminal *
Y	M20 with ground terminal *
TS	1/2-14NPT with ground terminal *

* Models with ground terminals are approved by EN/IEC (CE marking).

(4) Indicator Specifications

Code	Specifications
None	No indicator
LD	LED (10 to 115 VAC/DC)
LE	Neon lamp (125 to 250 VAC)

(5) Wiring Specifications

Code	Terminal shape	Connector shape	Voltage	Wiring locations	Connector pin No.
None	Screw terminals (Conduit size: G½)	---	---	---	---
K13A	Direct-wire connector type	Threaded (M12)	AC	NO only	NO: ③ ④
K13			DC	NO only	NO: ③ ④
K43A			AC	NC+NO	NO: ③ ④ NC: ① ②
K43			DC	NC+NO	NO: ③ ④ NC: ① ②
-M1J	Pre-wired connector *	Threaded (M12)	DC	NO only	NO: ③ ④
-M1GJ				NO only	NO: ① ④
-M1JB				NC only	NC: ③ ②
-DGJ				NC+NO	NO: ③ ④ NC: ① ②
-DK1EJ	Pre-wired connector *	Smartclick	DC	NO only	NO: ③ ④ NC: ②
-DTGJ				NC+NO	NO: ③ ④ NC: ① ②
-DTK1EJ				NO only	NO: ③ ④ NC: ②

* The standard cable length for a pre-wired connector is 0.3 m. Contact your OMRON representative for information on other cable lengths.