

WL-N/WLM-N

Model Number Structure

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

General-purpose Switches

WL□ - □□□□ -N
 (1) (2) (3) (4) (5)

(1) Actuator and Property Specifications

Code	Lever	Pretravel (PT)
CA2	Roller lever: R38 mm	15±5°
CA2-7	Roller lever: R50 mm	
CA2-8	Roller lever: R63 mm	
CA12	Adjustable roller lever: R25 to 89 mm	
CL	Adjustable rod lever: 25 to 140 mm	
CAL4	Adjustable rod lever: 350 to 380 mm	
CAL5	Rod spring lever	
CA2-2	Roller lever: R38 mm	25±5°
CA12-2	Adjustable roller lever: R25 to 89 mm	
CL-2	Adjustable rod lever: 25 to 140 mm	
CA2-2N	Roller lever: R38 mm	MAX 20°
CA12-2N	Adjustable roller lever: R25 to 89 mm	
CL-2N	Adjustable rod lever: 25 to 140 mm	
G2	Roller lever, high sensitivity: R38 mm	10° ^{+2°} _{-1°}
G12	Adjustable roller lever, high sensitivity: R25 to 89 mm	
GL	Adjustable rod lever, high sensitivity: 25 to 140 mm	
GCA2	Roller lever, high precision: R38 mm	5° ^{+2°} _{0°}
CA32-41	Fork lever lock	50±5°
CA32-42	Fork lever lock	
CA32-43	Fork lever lock	
D18	Sealed top plunger	1.7 mm
D28	Sealed top-roller plunger	
D38	Sealed top-ball plunger	
SD	Horizontal plunger	2.8 mm
SD2	Horizontal-roller plunger	
SD3	Horizontal-ball plunger	
NJ	Flexible rod: Coil spring	20±10 mm
NJ-30	Flexible rod: Coil spring, multi-wire	
NJ-2	Flexible rod: Resin rod	40±20 mm
NJ-S2	Flexible rod: Steel wire	

(2) Built-in Switch Type

Code	Specification
Blank	Standard built-in switch
55	Airtight built-in switch

(3) Conduit Size, Ground Terminal Specifications

Code	Specifications	
	Conduit Size	Ground terminal
Blank	G1/2	None
G1	G1/2	Provided *
G	Pg13.5	
Y	M20	
TS	1/2-14NPT	

* Models with ground terminals are certified for EN/IEC (CE Marking).

(4) Indicator Type

Code	Specifications
Blank	No indicator
LE	Neon lamp: 125 to 250 VAC
LD	LED (10 to 115 VAC/DC)

(5) Lever Type

Code	Specifications
Blank	Standard lever (Allen-head bolt)
A	Double nut lever

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

General-purpose Switches

Sensor I/O Connector Switches

WL₍₁₎ - **LD**₍₂₎ **LD**₍₃₎ - **N**₍₄₎

(1) Actuator and Property Specifications

Code	Lever	Pretravel (PT)
CA2	Roller lever: R38 mm	15±5°
G2	Roller lever, high sensitivity: R38 mm	10° ^{+2°} _{-1°}
GCA2	Roller lever, high precision: R38 mm	5° ^{+2°} _{0°}
D28	Sealed top-roller plunger	1.7 mm

(2) Built-in Switch Type

Code	Specification
Blank	Standard built-in switch
55	Airtight built-in switch

(3) Indicator Type

Code	Specifications
LD	LED (10 to 115 VAC/DC)

(4) Connector Type

Code	Specification				
	Shape	Voltage used *1	Wiring locations	Connector pin No. *2	
K13A	Direct-wired connector	Threaded (M12)	AC	NO only	NO: ③ ④
K13			DC	NO only	NO: ③ ④
K43A		Threaded (M12)	AC	NC+NO	NC: ① ②, NO: ③ ④
K43			DC	NC+NO	NC: ① ②, NO: ③ ④
-M1J	Pre-wired connector *3	Threaded (M12)	DC	NO only	NO: ③ ④
-M1GJ			DC	NO only	NO: ① ④
-M1JB			DC	NC only	NC: ② ③
-AGJ			AC	NC+NO	NC: ① ②, NO: ③ ④
-DGJ			DC	NC+NO	NC: ① ②, NO: ③ ④
-DK1EJ		Smartclick	DC	NO only	NC: ②, NO: ③ ④
-M1TJ			DC	NO only	NO: ③ ④
-M1TGJ			DC	NO only	NO: ① ④
-M1TJB			DC	NC only	NC: ② ③
-DTGJ			DC	NC+NO	NC: ① ②, NO: ③ ④
-DTK1EJ	DC	NO only	NO: ②, NO: ③ ④		

*1. DC models are certified for EN/IEC (CE Marking).

*2. Refer to *Contact Forms* on page 16 for details on connector pin numbers.

*3. The standard cable length is 0.3 m. Contact your OMRON representative for information on other cable lengths.

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

Environment-resistant Switches

WL□ - □□□□□□□□ -N
 (1) (2) (3) (4) (5) (6) (7) (8) (9)

(1) Actuator and Property Specifications

Code	Lever	Pretravel (PT)
CA2	Roller lever: R38 mm	15±5°
CA2-7	Roller lever: R50 mm	
CA2-8	Roller lever: R63 mm	
CA12	Adjustable roller lever: R25 to 89 mm	
CL	Adjustable rod lever: 25 to 140 mm	
CAL4	Adjustable rod lever: 350 to 380 mm	25±5°
CAL5	Rod spring lever	
CA2-2	Roller lever: R38 mm	
CA12-2	Adjustable roller lever: R25 to 89 mm	MAX 20°
CL-2	Adjustable rod lever: 25 to 140 mm	
CA2-2N	Roller lever: R38 mm	10° ^{+2°} _{-1°}
CA12-2N	Adjustable roller lever: R25 to 89 mm	
CL-2N	Adjustable rod lever: 25 to 140 mm	5° ^{+2°} _{0°}
G2	Roller lever, high sensitivity: R38 mm	
G12	Adjustable roller lever, high sensitivity: R25 to 89 mm	55°
GL	Adjustable rod lever, high sensitivity: 25 to 140 mm	
GCA2	Roller lever, high precision: R38 mm	1.7 mm
CA32-41	Fork lever lock	
CA32-42	Fork lever lock	
CA32-43	Fork lever lock	20±10 mm
D18	Sealed top plunger	
D28	Sealed top-roller plunger	2.8 mm
D38	Sealed top-ball plunger	
SD	Horizontal plunger	40±20 mm
SD2	Horizontal-roller plunger	
SD3	Horizontal-ball plunger	
NJ	Flexible rod: Coil spring	20±10 mm
NJ-30	Flexible rod: Coil spring, multi-wire	
NJ-2	Flexible rod: Resin rod	40±20 mm
NJ-S2	Flexible rod: Steel wire	

(2) Environment-resistant Model Specifications

Code	Specifications
Blank	Standard
RP	Corrosion-proof
P1	Weather-proof

(3) Built-in Switch Type

Code	Specifications
Blank	Standard built-in switch
55	Airtight built-in switch

(4) Temperature Specifications

Code	Specifications
Blank	Standard: -10°C to +80°C
TH	Heat-resistant: +5°C to +120°C *1
TC	Low-temperature: -40°C to +40°C *1

*1. Cannot be combined with Corrosion-proof (RP) or Weather-proof (P1) Switches.

(5) Hermetic Specification

Code	Specifications
Blank	No cable molding.
139	Standard built-in switch. Cable is attached. Molded conduit opening and cover. (The cover cannot be removed.)
140	Airtight built-in switch. Cable is attached. Molded conduit opening, cover, and cover screws. (The cover cannot be removed.)
141	Airtight built-in switch. Cable is attached. Molded conduit opening, cover, head, cover screws, and head screws. (The cover cannot be removed and the head direction cannot be changed.) Double seal against oil including head cap countermeasure for cutting chips and an oil seal.
145	Airtight built-in switch. Cable is attached. Molded conduit opening, cover, and cover screws. (The cover cannot be removed. The head can be mounted in any of 4 directions.) Double seal against oil including head cap countermeasure for cutting chips and an oil seal.
RP40	Airtight built-in switch. Cable is attached. Molded conduit opening and cover. (The cover cannot be removed.) SC Connector can be removed, so it is possible to use flexible conduits for the cable.
RP60	Airtight built-in switch. Cables are attached. Molded conduit opening, cover, cover screws, and head screws. (The cover cannot be removed and the head direction cannot be changed.) Fluorine rubber is used for all rubber parts.

(6) Conduit Size, Ground Terminal Specifications

Code	Specifications	
	Conduit Size	Ground terminal
Blank	G1/2	None
G1	G1/2	Provided *2
G	Pg13.5	
Y	M20	
TS	1/2-14NPT	

*2. Models with ground terminals are certified for EN/IEC (CE Marking).

(7) Indicator Type

Code	Specifications
Blank	No indicator
LE	Neon lamp: 125 to 250 VAC
LD	LED (10 to 115 VAC/DC)

*3. Cannot be combined with Corrosion-proof (RP), Weather-proof (P1), Heat-resistant (TC), or Low-temperature (TC) Switches.

(8) Indicator Wiring Specification

Code	Specifications
2	NC connection: Light-ON when operating
3	NO connection: Light-ON when not operating

*4. Always include the indicator wiring specification if you specify a (5) hermetic structure and an (7) indicator.

(9) Lever Type

Code	Specifications
Blank	Standard lever (Allen-head bolt)
A	Double nut lever

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

Spatter-prevention Switches

WL□ - □□□ S□ -N
 (1) (2) (3) (4)

(1) Actuator and Property Specifications

Code	Lever	Pretravel (PT)
CA2	Roller lever: R38 mm	15±5°
G2	Roller lever, high sensitivity: R38 mm	10° ^{+2°} _{-1°}
GCA2	Roller lever, high precision: R38 mm	5° ^{+2°} _{0°}
D28	Sealed top-roller plunger	1.7 mm

(2) Built-in Switch Type

Code	Specifications
Blank	Standard built-in switch
55	Airtight built-in switch

(3) Indicator Type

Code	Specifications
LE	Neon lamp: 125 to 250 VAC *1
LD	LED (10 to 115 VAC/DC)

*1. Cannot be combined with a Switch with a Connector.

(4) Connector Type

Code	Specifications				
	Shape	Voltage *2	Wiring locations	Connector pin No. *3	
Blank	No connector	—	—	—	
-M1J-1	Pre-wired Connector *4	Threaded (M12)	DC	NO only	NO: ③ ④
-M1GJ-1			DC	NO only	NO: ① ④
-DGJS		DC	NC+NO	NC: ① ②, NO: ③ ④	
-DTGJS		Smartclick	DC	NC+NO	NC: ① ②, NO: ③ ④

*2. DC models are certified for EN/IEC (CE Marking).

*3. Refer to *Contact Forms* on page 16 for details on connector pin numbers.

*4. The standard cable length is 0.3 m. Contact your OMRON representative for information on other cable lengths.