

### Heavy-Duty Switch Features Plug-In Construction

- Oiltight, watertight construction meets NEMA 3, 4, 4X, 6P and 13
- Convenient front mounting, easy installation and maintenance
- Wide temperature range: -40° to 100°C (-40° to 212°F)
- Choose operation status models with LED or neon lamp indicators
- Side rotary switches accept a wide selection of levers
- Increased mechanical durability



## Ordering Information

### ■ SIDE ROTARY SWITCHES

When ordering side rotary switches, order the levers separately from the next page.

Description	SPDT double break			DPDT double break
	No indicator	Neon lamp	LED indicator	No indicator
Standard	<b>D4A-1101N</b>	<b>D4A-1301N</b>	<b>D4A-1E01N</b>	<b>D4A-2501N</b>
High-precision	<b>D4A-1102N</b>	<b>D4A-1302N</b>	<b>D4A-1E02N</b>	<b>D4A-2502N</b>
Low torque	<b>D4A-1103N</b>	<b>D4A-1303N</b>	<b>D4A-1E03N</b>	<b>D4A-2503N</b>
High precision/low torque	<b>D4A-1104N</b>	<b>D4A-1304N</b>	<b>D4A-1E04N</b>	<b>D4A-2504N</b>
Maintained contact	<b>D4A-1105N</b>	<b>D4A-1305N</b>	<b>D4A-1E05N</b>	<b>D4A-2505N</b>
Sequential operation	—	—	—	<b>D4A-2717N</b>
Center neutral operation	—	—	—	<b>D4A-2918N</b>



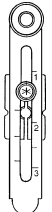


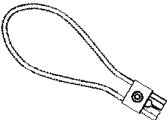
### ■ SWITCHES WITH BUILT-IN ACTUATORS

Description		SPDT double break			DPDT double break
		No indicator	Neon lamp	LED indicator	No indicator
Side plunger type	Plain	<b>D4A-1106N</b>	<b>D4A-1306N</b>	<b>D4A-1E06N</b>	<b>D4A-2506N</b>
	Vertical roller	<b>D4A-1107-V-N</b>	<b>D4A-1307-V-N</b>	<b>D4A-1E07-V-N</b>	<b>D4A-2507-V-N</b>
	Horizontal roller	<b>D4A-1107-H-N</b>	<b>D4A-1307-H-N</b>	<b>D4A-1E07-H-N</b>	<b>D4A-2507-V-N</b>
	Adjustable plunger	<b>D4A-1108N</b>	<b>D4A-1308N</b>	<b>D4A-1E08N</b>	<b>D4A-2508N</b>
Top plunger type	Plain	<b>D4A-1109N</b>	<b>D4A-1309N</b>	<b>D4A-1E09N</b>	<b>D4A-2509N</b>
	Roller	<b>D4A-1110N</b>	<b>D4A-1310N</b>	<b>D4A-1E10N</b>	<b>D4A-2510N</b>
	Adjustable plunger	<b>D4A-1111N</b>	<b>D4A-1311N</b>	<b>D4A-1E11N</b>	<b>D4A-2511N</b>
Wobble lever type	Spring wire	<b>D4A-1112N</b>	<b>D4A-1312N</b>	<b>D4A-1E12N</b>	<b>D4A-2512N</b>
	Piano wire rod	<b>D4A-1114N</b>	<b>D4A-1314N</b>	<b>D4A-1E14N</b>	<b>D4A-2514N</b>
	Stainless steel rod	<b>D4A-1124N</b>	<b>D4A-1324N</b>	<b>D4A-1E24N</b>	<b>D4A-2524N</b>
	Cat whisker	<b>D4A-1115N</b>	<b>D4A-1315N</b>	<b>D4A-1E15N</b>	<b>D4A-2515N</b>
	Coil spring	<b>D4A-1116N</b>	<b>D4A-1316N</b>	<b>D4A-1E16N</b>	<b>D4A-2516N</b>

### ■ OPTIONS

Add "-F" suffix for Viton® fluoroelastomer seals that withstand temperatures to 120°C (248°F). For example, **D4A-1101N-F**.

# LEVERS FOR D4A-N SIDE ROTARY SWITCHES

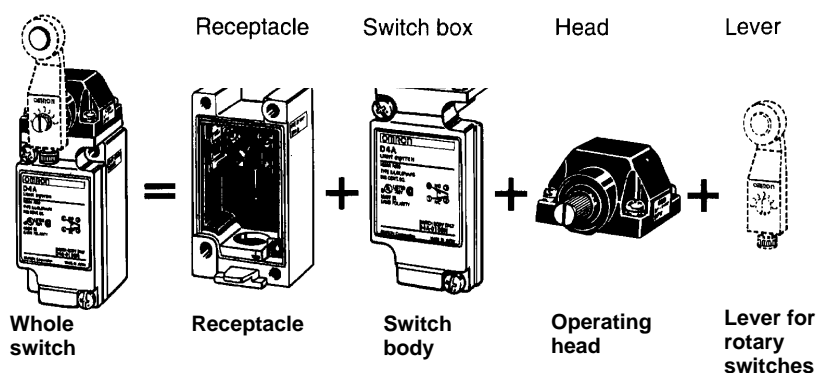
Description		Lever radius	Material	Diameter	Width	Part number
Standard roller levers, front mount		38.1 mm (1.5 in)	Stainless steel	19.1 mm (0.75 in)	7.9 mm (0.31 in)	D4A-A00
		33.7 mm (1.33 in)	Stainless steel	17.5 mm (0.69 in)	15 mm (0.59 in)	D4A-B06
		38.0 mm (1.5 in)	Ball bearing	17.0 mm (0.67 in)	6 mm (0.24 in)	WL-1A400
		38.0 mm (1.5 in)	Nylon	17.5 mm (0.69 in)	30 mm (1.18 in)	WL-1A104
		50.0 mm (1.97 in)	Stainless steel	17.5 mm (0.69 in)	15 mm (0.59 in)	WL-1A200
		63.0 mm (2.48 in)	Stainless steel	17.5 mm (0.69 in)	7.0 mm (0.28 in)	WL-1A300
Standard roller lever, back mount		38.1 mm (1.5 in)	Stainless steel	19.1 mm (0.75 in)	7.9 mm (0.31 in)	D4A-A10
		38.1 mm (1.5 in)	Nylon	50 mm (1.97 in)	7.0 mm (0.28 in)	WL-1A106
Offset roller lever	Front mount	38.1 mm (1.5 in)	Stainless steel	19.1 mm (0.75 in)	7.9 mm (0.31 in)	D4A-A20
	Back mount	38.1 mm (1.5 in)	Stainless steel	19.1 mm (0.75 in)	7.9 mm (0.31 in)	D4A-A30
Adjustable roller lever, front mount		25 to 89 mm (0.98 to 3.5 in) L	Nylon	17.5 mm (0.69 in)	7.0 mm (0.28 in)	WL-2A111
		33 to 91 mm (1.3 to 3.6 in) L	Stainless steel	19.1 mm (0.75 in)	7.4 mm (0.29 in)	D4A-C00
Spring rod lever		290 mm (11.5 in) L	Stainless steel	2 mm (0.08 in)	—	WL-4A201
Adjustable rod lever		150 mm (5.91 in) L	Stainless steel	3 mm (0.12 in)	—	D4A-D00
		350 to 380 mm (13.8 to 15 in) L	Stainless steel	3.2 mm (0.13 in)	—	WL-3A100
Fork roller lever	L.H. front/ R.H. back	38.1 mm (1.5 in)	Stainless steel	19.1 mm (0.75 in)	7.9 mm (0.31 in)	D4A-E00
		38.0 mm (1.5 in)	Nylon	17.5 mm (0.69 in)	7.0 mm (0.28 in)	WL-5A100
	L.H. back/ R.H. front	38.1 mm (1.5 in)	Stainless steel	19.1 mm (0.75 in)	7.9 mm (0.31 in)	D4A-E10
		38.0 mm (1.5 in)	Nylon	17.5 mm (0.69 in)	7.0 mm (0.28 in)	WL-5A102
	Both front	38.1 mm (1.5 in)	Stainless steel	19.1 mm (0.35 in)	7.9 mm (0.31 in)	D4A-E20
Looped rod		150 mm (6 in) L	Nylon	4 mm (0.16 in)	60 mm (2.36 in)	D4A-F00

## REPLACEMENT PARTS

### Building a Part Number

The D4A-N family of switches features plug-in construction with interchangeable parts for simplified long-term maintenance. The illustration at right shows the parts that make up a whole switch, as well as how to read a part number as the sum of its parts.

Note: Compatibility of D4A-N parts with Omron's former D4A series is limited to interchangeable **receptacles** only. D4A switch bodies and operating heads cannot be used to replace similar D4A-N parts.



$$D4A-1101N = D4A-1000N + D4A-0100N + D4A-0001N + D4A-A00 \text{ or } WL-1A200 \text{ (ordered separately)}$$

### Receptacles

Description	Part number
SPDT double break	D4A-1000N
DPDT double break, also used for sequential operation and center neutral operation switches	D4A-2000N

### Switch Bodies

Omron offers two economical solutions for long-term maintenance of D4A-N limit switches. Choose a complete switch body with a built-in switch, or just replace the internal switch by removing the two screws holding it in place.

Description	Indicator type	Body with built-in switch	Internal switch only
SPDT double break	No indicator	D4A-0100N	D4A-S10N
	Neon lamp indicator	D4A-0300N	—
	LED indicator, 6 A, 24 VDC	D4A-0E00N	—
DPDT double break	No indicator	D4A-0500N	D4A-S50N
Sequential operating type, DPDT	No indicator	D4A-0700N	D4A-S70N
Center neutral operating type, DPDT	No indicator	D4A-0900N	D4A-S90N

### Operating Heads

For side rotary operating heads listed below, be sure to order an actuator lever from the large selection of D4A and WL parts listed on the second page of this data sheet.

Description	Part number
Standard side rotary	D4A-0001N
High precision side rotary	D4A-0002N
Low torque side rotary	D4A-0003N
High precision/low torque side rotary	D4A-0004N
Maintained contact side rotary	D4A-0005N
Sequential operating side rotary	D4A-0017N
Center neutral operating side rotary	D4A-0018N

Description	Part number
Plain side plunger	D4A-0006N
Vertical side roller plunger	D4A-0007-VN
Horizontal side roller plunger	D4A-0007-HN
Adjustable side plunger	D4A-0008N
Plain top plunger	D4A-0009N
Top roller plunger	D4A-0010N
Adjustable top plunger	D4A-0011N

Description	Part number
Spring wire wobble lever	D4A-0012N
Plastic rod wobble lever	D4A-0014N
Stainless steel rod wobble lever	D4A-0024N
Cat whisker wobble lever	D4A-0015N
Coil spring wobble lever	D4A-0016N

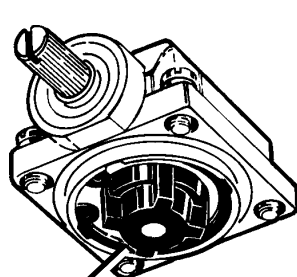
## Construction

### Head

Side rotary type and side plunger types may be positioned and locked at any of four 90° positions.

### Operation Direction Selector

Side rotary heads convert to clockwise, counterclockwise or operation in both ways in seconds.



### Axis Bearing

Copper alloy material assures long life.

### Double Sealed Rugged Shaft

Sealed with an oil seal and X-ring of nitrile butadiene rubber (NBR). Shaft withstands heavy loads, impacts to 180 kg (396 lbs)

### Receptacle Box

Easy to wire with convenient plug-in construction. Made of rugged diecast aluminum.

### Long-Life Built-In Switch

SPDT double break: 50 million operations  
DPDT double break: 30 million operations

### Body Seal

Fully gasketed to seal body to receptacle.

### Switch Front Mounting Screws

Captive screws are used to prevent screws from getting lost.

Conduit Entrance  
1/2-14 NPT

## Specifications

### ■ ELECTRICAL RATINGS

#### NEMA A600 Rating (UL/CSA)

Circuit	Rated voltage	Amperes		Continuous carrying current	Voltamperes	
		Make	Break		Make	Break
SPDT double break	120 VAC	60	6	10	7200	720
	240 VAC	30	3	10	7200	720
	480 VAC	15	1.5	10	7200	720
	600 VAC	12	1.2	10	7200	720

#### NEMA B600 Rating (UL/CSA)

Circuit	Rated voltage	Amperes		Continuous carrying current	Voltamperes	
		Make	Break		Make	Break
DPDT double break	120 VAC	30	3	5	3600	360
	240 VAC	15	1.5	5	3600	360
	480 VAC	7.5	0.75	5	3600	360
	600 VAC	6	0.6	5	3600	360

#### NEMA A300 Rating (UL/CSA) for SPDT switches with neon lamp indicators

Circuit	Rated voltage	Amperes		Continuous carrying current	Voltamperes	
		Make	Break		Make	Break
SPDT double break	120 VAC	60	6	10	7200	720
	240 VAC	30	3	10	7200	720

Note: All switches must be the same polarity.

**SPDT switches with LED indicators**

Circuit	Rated voltage	Load current
SPDT double break	24 VDC	6 A max. (resistive)

**■ CHARACTERISTICS**

Enclosure rating	UL	Types 3, 4, 4X, 6P, 13
	NEMA	Types 1, 2, 3, 4, 4X, 5, 6, 6P, 12 and 13
	IEC 144	IP67
Mechanical life		50 million operations for SPDT; 30 million operations for DPDT
Ambient operating temperature		-40° to 100°C (-40° to 212°F) for side rotary types (except low torque types) -20° to 100°C (-4° to 212°F) for plunger and wobble lever types -10° to 80°C (14° to 176°F) for indicator equipped types -10° to 120°C (14° to 248°F) for Viton sealed type
Vibration	Malfunction durability	10 to 55 Hz, 1.5 mm (0.06 in) double amplitude
Shock	Malfunction durability	60 G for SPDT side rotary types; 30 G for all others
	Mechanical durability	100 G

**■ OPERATING CHARACTERISTICS**

**Legend:** OF = Operating Force (max.); RF = Reset Force (min.); OT = Overtravel (min.); PT = Pretravel;  
MD = Movement Differential (max.); PO = Positively Open (max.); TT = Total Travel; OP = Operating Position

**Side Rotary Switches**

Part number	Description	OF max.	RF min.	PT max.	OT min.	MD max.		OP
						SPDT	DPDT	
D4A-□□01N	Standard	4 kg-cm (3.5 lb-in)	0.5 kg-cm (0.4 lb-in)	12° ±3°	70°	4° ±1°	5° ±2°	—
D4A-□□02N	High-precision	4 kg-cm (3.5 lb-in)	0.5 kg-cm (0.4 lb-in)	5° ±2°	75°	3° ±1°	4° ±1°	—
D4A-□□03N	Side rotary, low torque	2 kg-cm (1.7 lb-in)	—	12° ±3°	70°	4° ±1°	5° ±2°	—
D4A-□□04N	Side rotary, high-precision /low torque	2 kg-cm (1.7 lb-in)	—	5° ±2°	75°	3° ±2°	4° ±2°	—
D4A-□□05N	Side rotary, maintained contact	4 kg-cm (3.5 lb-in)	—	55° ±10°	20°	28° ±7°	28° ±7°	—
D4A-□□17N	Side rotary, sequential operation	4 kg-cm (3.5 lb-in)	0.5 kg-cm (0.4 lb-in)	1st pole 7° ±3° 2nd pole 15° ±3°	65°	Each pole 4° ±2°		—
D4A-□□18N	Side rotary, center neutral operation	4 kg-cm (3.5 lb-in)	0.2 kg-cm (0.2 lb-in)	15° ±3°	65°	4° ±1°		—

Note: The operating position depends on the lever selected.

**Switches with Built-in Actuators**

Part number	Description	OF max.	RF min.	OT min.	PT max.	MD max.		OP
						SPDT	DPDT	
D4A-□□06N	Plain side plunger	2 kg (70.5 oz.)	500 g (17.6 oz.)	5.1 mm (0.201 in)	2.4 mm (0.094 in)	0.6 mm (0.024 in)	1.0 mm (0.039 in)	34 ±0.8 mm (1.34 ±0.03 in)
D4A-□□07N	Roller side plunger	2 kg (70.5 oz.)	500 g (17.6 oz.)	5.1 mm (0.201 in)	2.4 mm (0.094 in)	0.6 mm (0.024 in)	1.0 mm (0.039 in)	44 ±0.8 mm (1.73 ±0.03 in)
D4A-□□08N	Adjustable side plunger	2 kg (70.5 oz.)	500 g (17.6 oz.)	5.1 mm (0.201 in)	2.4 mm (0.094 in)	0.6 mm (0.024 in)	1.0 mm (0.039 in)	41 to 47.5 mm (1.61 to 1.87 in)
D4A-□□09N	Plain top plunger	1.8 kg (63.5 oz.)	500 g (17.6 oz.)	5.1 mm (0.201 in)	1.6 mm (0.063 in)	0.4 mm (0.016 in)	1.0 mm (0.039 in)	46 ±0.8 mm (1.81 ±0.03 in)
D4A-□□10N	Roller top plunger	1.8 kg (63.5 oz.)	500 g (17.6 oz.)	5.1 mm (0.201 in)	1.6 mm (0.063 in)	0.4 mm (0.016 in)	1.0 mm (0.039 in)	56 ±0.8 mm (2.20 ±0.03 in)

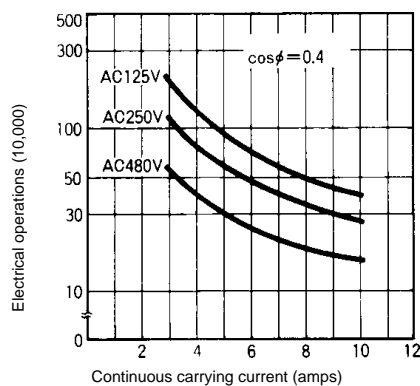
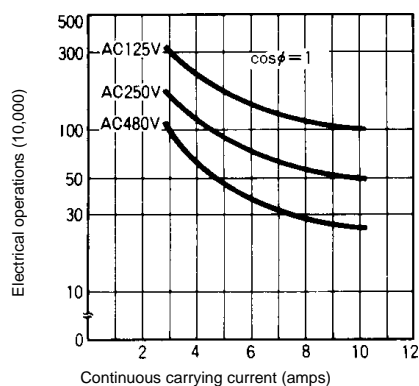
## Switches with Built-in Actuators (continued)

Part number	Description	OF max.	RF min.	OT min.	PT max.	MD max.		OP
						SPDT	DPDT	
D4A-□□11N	Adjustable top plunger	1.8 kg (63.5 oz.)	500 g (17.6 oz.)	5.1 mm (0.201 in)	1.6 mm (0.063 in)	0.4 mm (0.016 in)	1.0 mm (0.039 in)	55.5 to 62 mm (2.19 to 2.44 in)
D4A-□□12N	Spring wire wobble lever	100 g (3.5 oz.)	—	—	5° ±3°, 3.94 in radius	—	—	—
D4A-□□14N	Plastic rod wobble lever	150 g (5.3 oz.)	—	—	5° ±3°, 1.38 in radius	—	—	—
D4A-□□15N	Cat whisker wobble lever	150 g (5.3 oz.)	—	—	5° ±3°, 1.97 in radius	—	—	—
D4A-□□16N	Coil spring wobble lever	150 g (5.3 oz.)	—	—	5° ±3°, 1.97 in radius	—	—	—

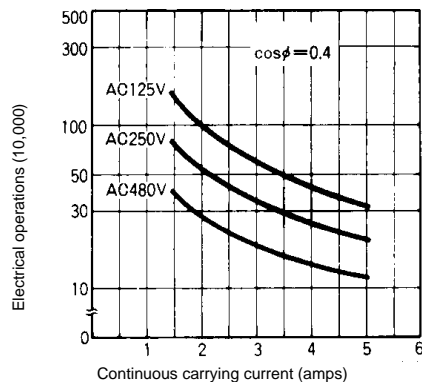
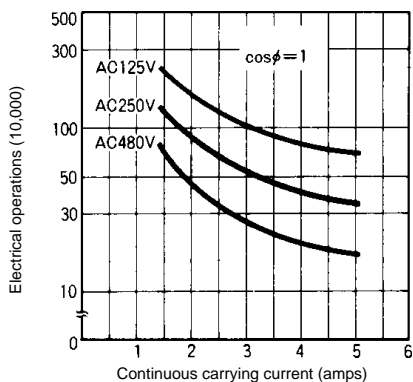
# Engineering Data

## Electrical Service Life

### D4A-1□□□N SPDT Double Break



### D4A-2□□□N DPDT Double Break



## ■ CONTACT RATINGS

NEMA A600 for SPDT models

NEMA B600 for DPDT models

NEMA A300 for SPDT models with neon lamp status indicator

## ■ CONTACT RESISTANCE

25 mΩ maximum (initial)

## ■ ELECTRICAL APPROVALS

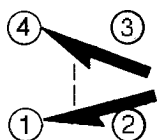
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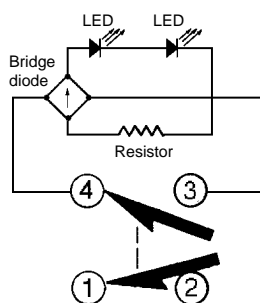
# Operation

## ■ CONTACT FORM

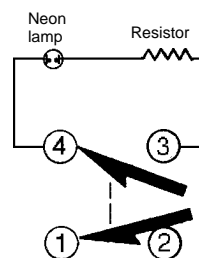
SPDT Double Break with same polarity



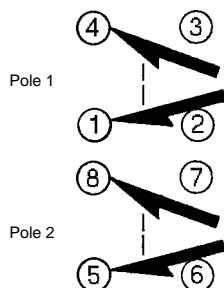
SPDT Double Break with LED Indicator



SPDT Double Break with Neon Lamp Indicator

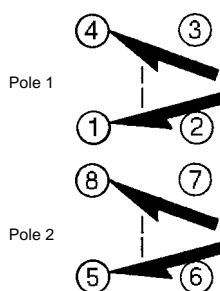


DPDT Double Break with same polarity each pole



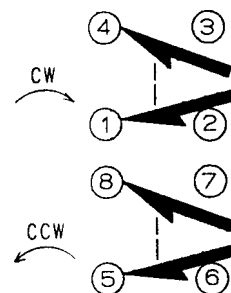
Sequential Operating Type

Pole 1 operates first  
Pole 2 operates second  
Either CW or CCW or both

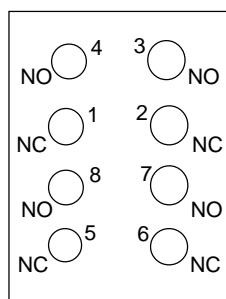


Center Neutral Operating Type

Pole 1 operates CW  
Pole 2 operates CCW



## ■ TERMINAL ARRANGEMENT

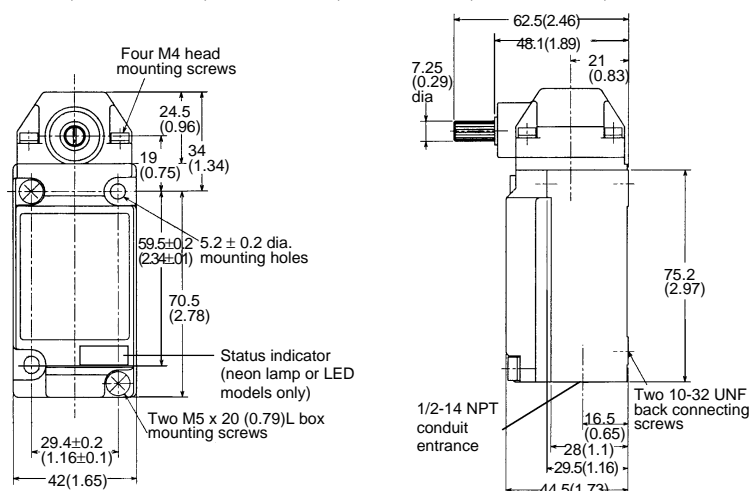


# Dimensions

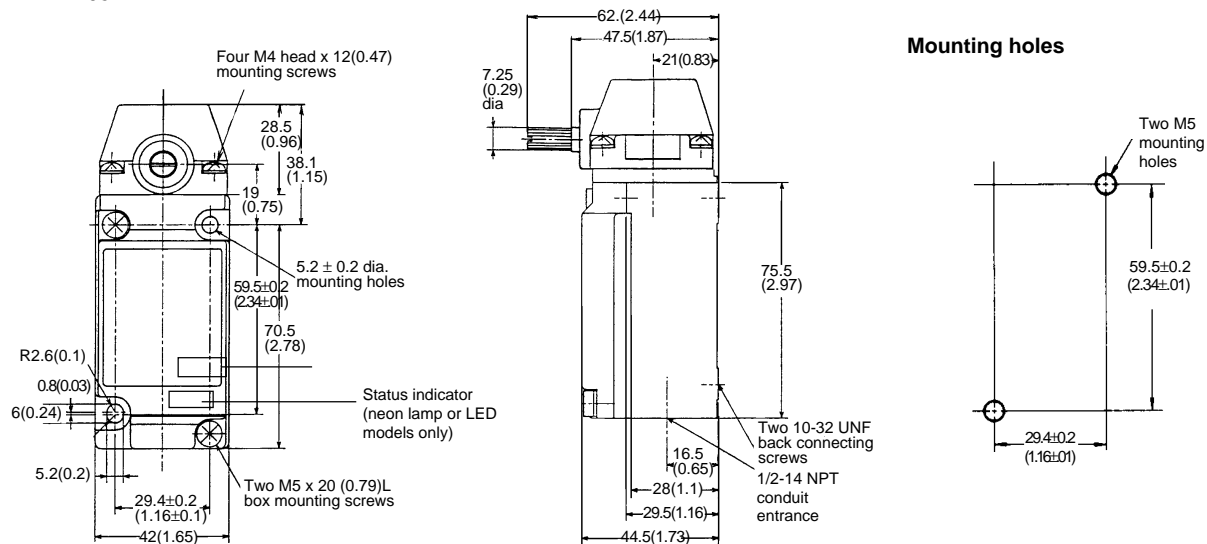
Unit: mm (inch)

## ■ SIDE ROTARY SWITCHES

D4A-□□01N, D4A-□□02N, D4A-□□03N, D4A-□□04N, D4A-□□17N, D4A-□□18N



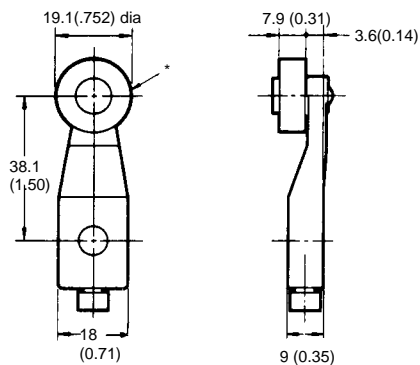
D4A-□□05N



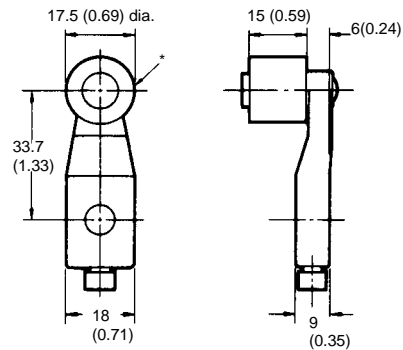


## LEVERS FOR SIDE ROTARY SWITCHES

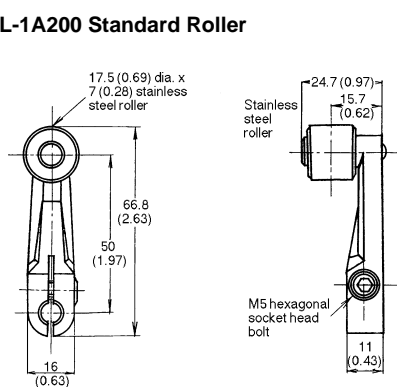
### D4A-A00 Standard Roller



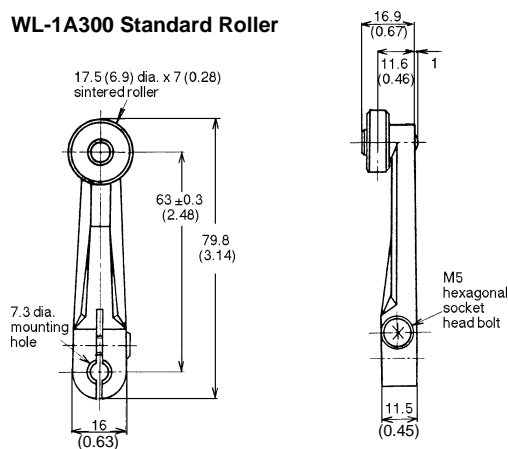
### D4A-B06 Standard Roller



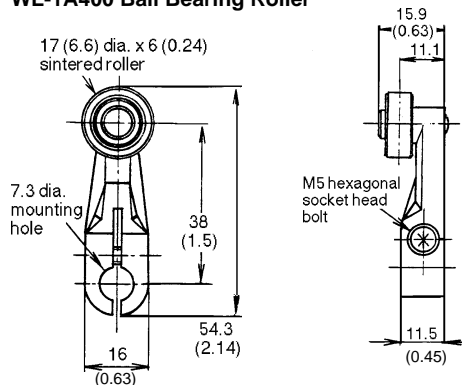
### WL-1A200 Standard Roller



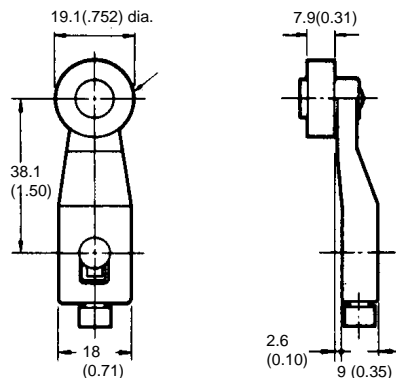
### WL-1A300 Standard Roller



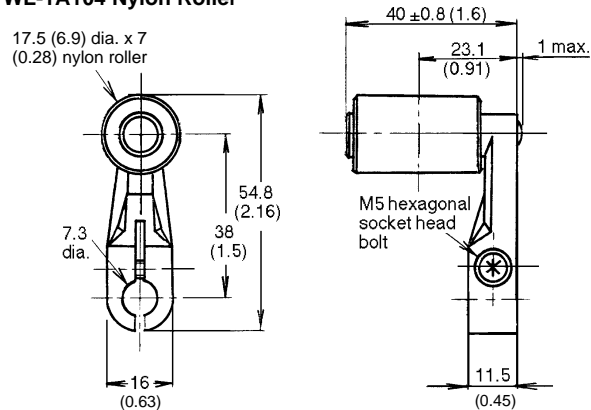
### WL-1A400 Ball Bearing Roller



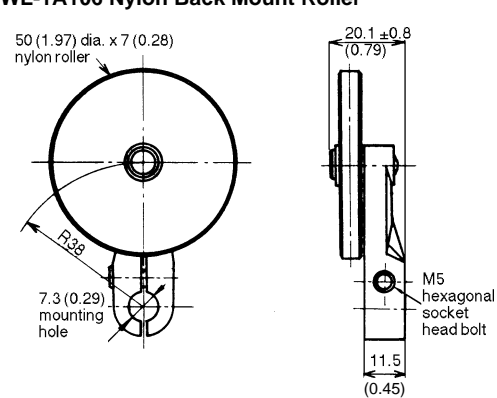
### D4A-A10 Back Mount Standard Roller



### WL-1A104 Nylon Roller



### WL-1A106 Nylon Back Mount Roller



### D4A-A20 Front Mounted Offset Roller



Technical drawing of the 'Stainless steel adjustable lever' showing front and side views with dimensions in inches and millimeters.

**Front View Dimensions:**

- Top roller diameter: 17.5 (0.69) dia. x 7 (0.28) roller
- Stainless steel adjustable lever
- Mounting hole diameter: 7.3 dia. mounting hole
- Adjustable length: 25 to 89 (0.98 to 3.5) adjustable length
- Total length: 105.75 (4.16)
- Bottom hole diameter: 12
- Bottom hole diameter: 16

**Side View Dimensions:**

- Top roller diameter: 24.9 ± 0.8 (0.98)
- Roller height: 19.7 ± 0.8 (0.78)
- Mounting hole diameter: 23 (0.91)
- Two M5 hexagonal socket head bolts

Technical drawing of the 1000 Series Vertical Mounting Bracket, showing front and side views with dimensions in inches and millimeters.

**Front View Dimensions:**

- Top mounting hole diameter: 19 (0.75)
- Adjustable range: 33 to 91 (1.299 to 3.583)
- Adjustable range scale: 6.4 (.252)
- Bottom mounting hole diameter: 18 (0.71)
- Bottom mounting hole offset: 21.1 (0.83)
- Overall height: 113 (4.45)

**Side View Dimensions:**

- Top mounting hole offset: 7.9 (0.31)
- Top mounting hole diameter: 14 (0.55)
- Bottom mounting hole offset: 2.5 (0.1)

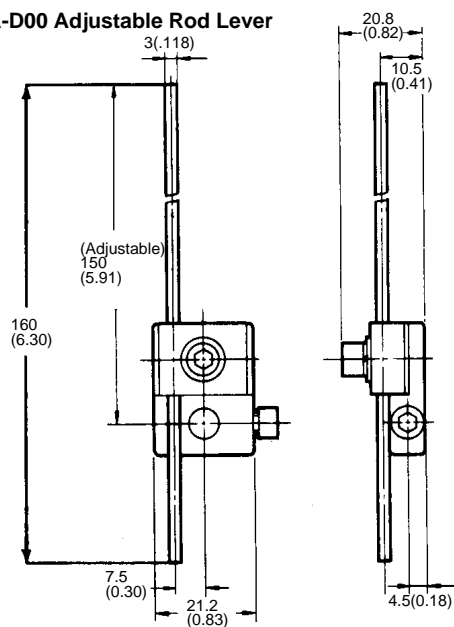
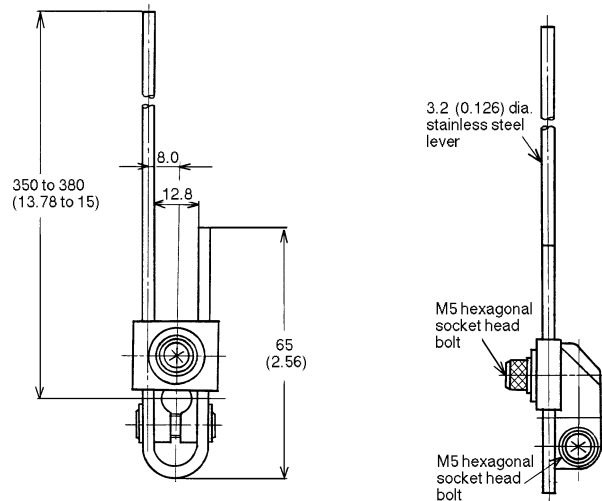
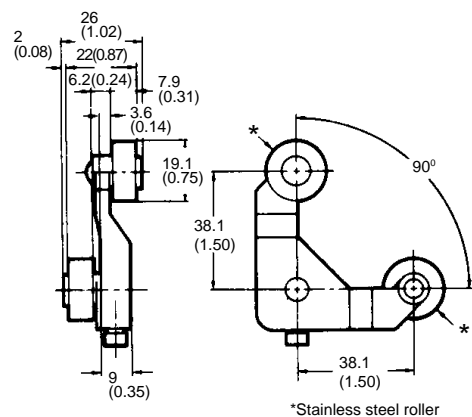
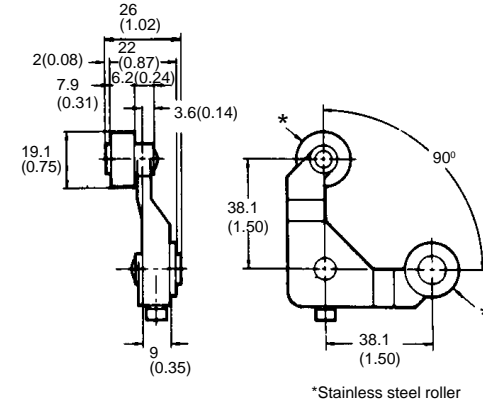
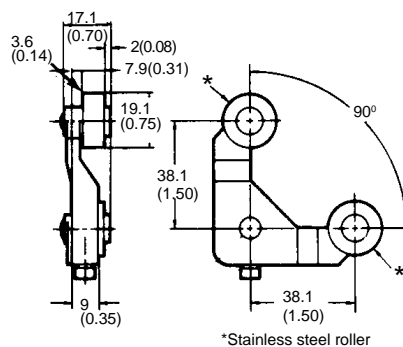
Technical drawing of the 1000 Series Locking Bolt Assembly, showing side and end views with dimensions.

**Side View Dimensions:**

- Overall width: 9
- Stainless steel spring lever diameter: 2 dia.
- Locking bolt diameter: 13 dia.
- Adjustable range: Max. 290 (11.4)

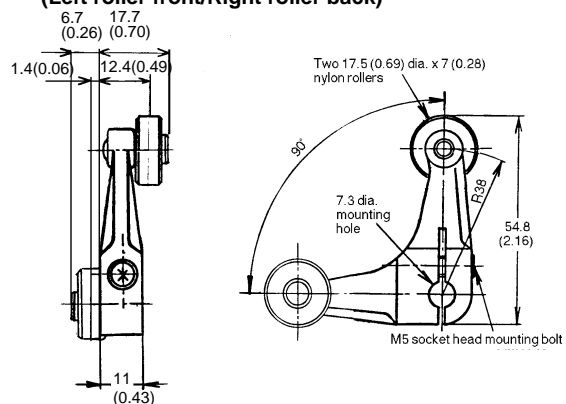
**End View Details:**

- Shows the internal components, including the locking bolt and the stainless steel spring lever.
- Includes a circular feature with a crosshair, likely a mounting or adjustment point.

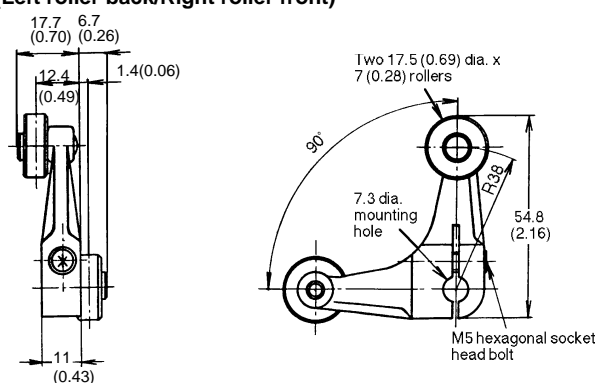
**D4A-D00 Adjustable Rod Lever****WL-3A100 Adjustable Rod Lever****D4A-E00 Fork Roller Lever  
(Left roller front/Right roller back)****D4A-E10 Fork Roller Lever  
(Left roller back/Right roller front)****D4A-E20 Fork Roller Lever  
(Both rollers on front)**

Unit: mm (inch)

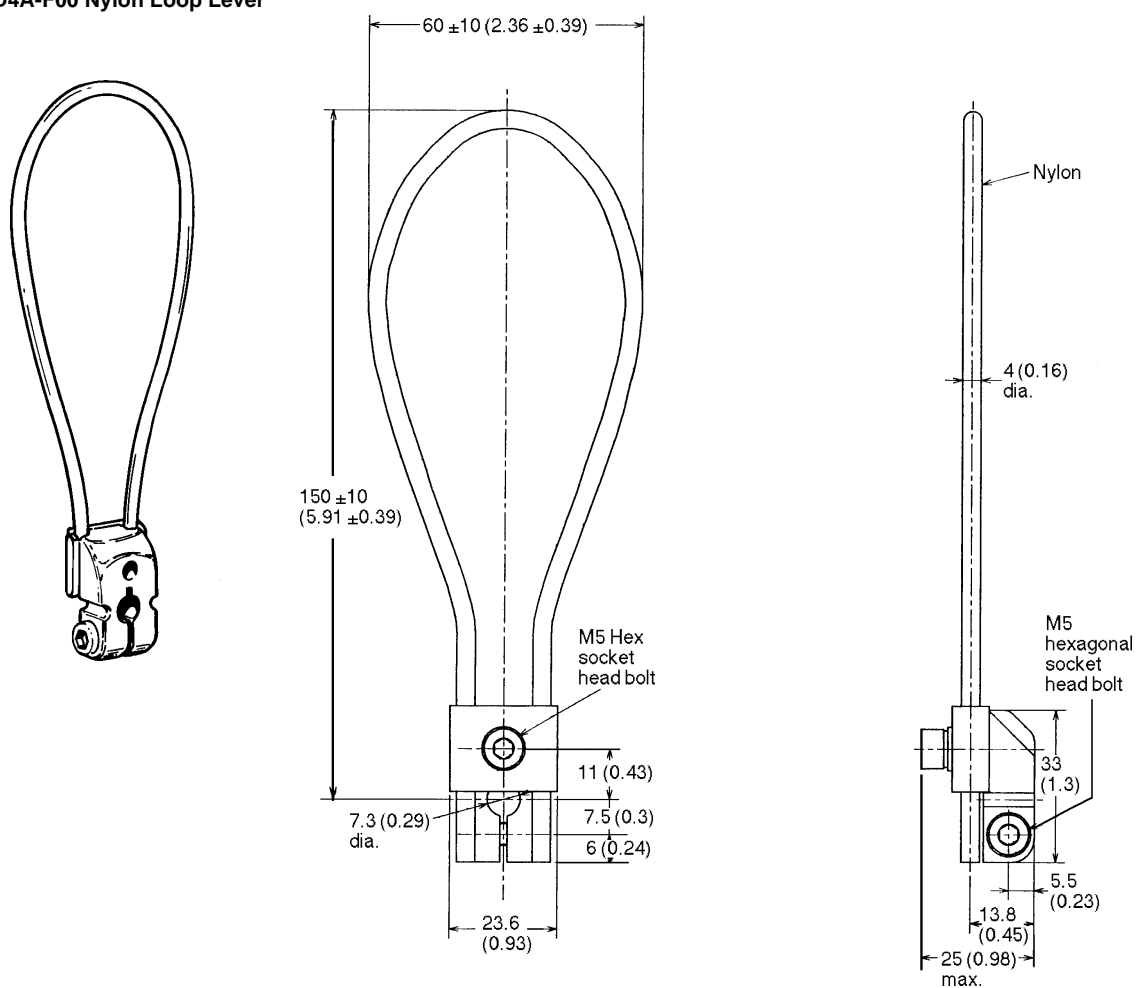
**WL-5A100 Nylon Fork Roller Lever**  
(Left roller front/Right roller back)



**WL-5A102 Nylon Fork Roller Lever**  
(Left roller back/Right roller front)

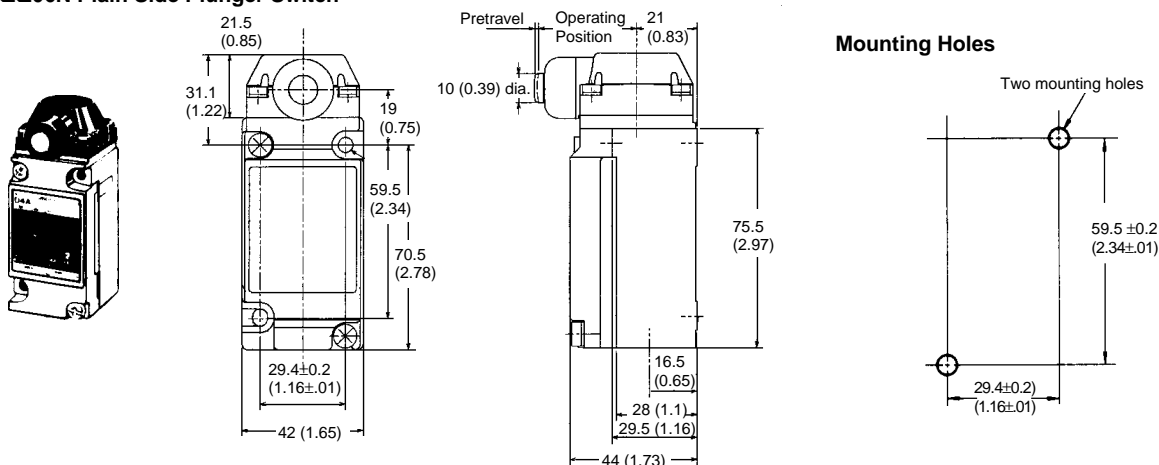


**D4A-F00 Nylon Loop Lever**

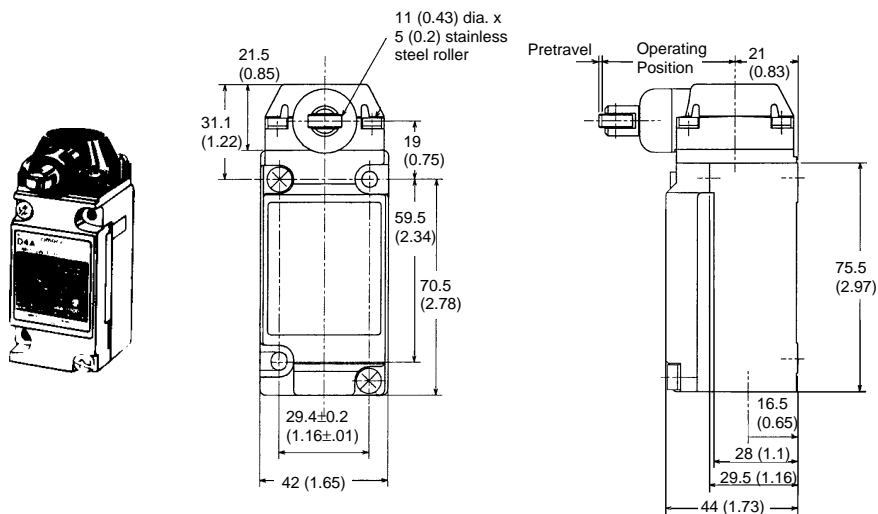


## SWITCHES WITH BUILT-IN ACTUATORS

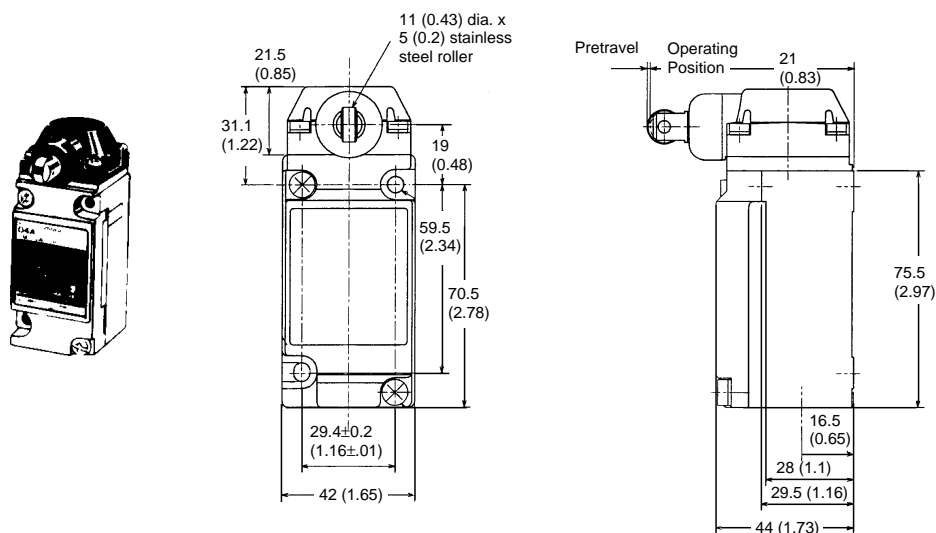
### D4A-□□06N Plain Side Plunger Switch



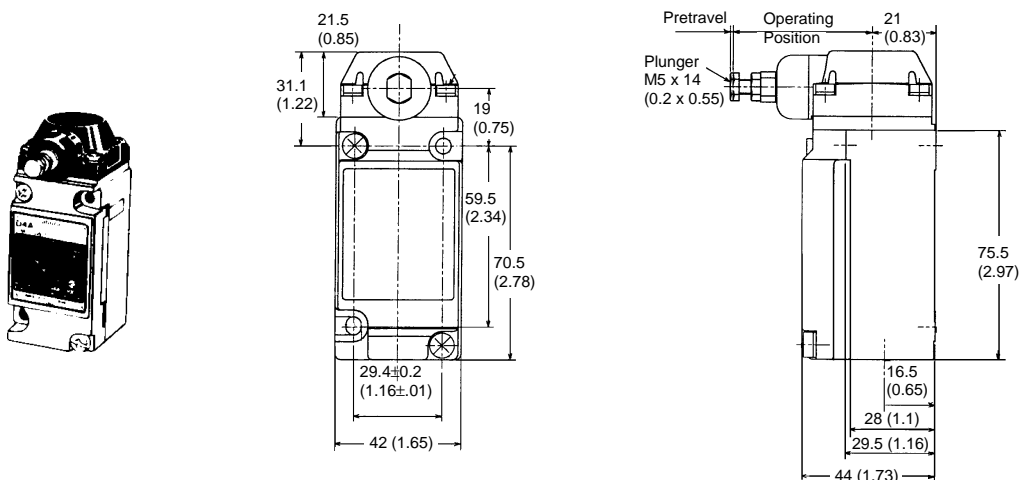
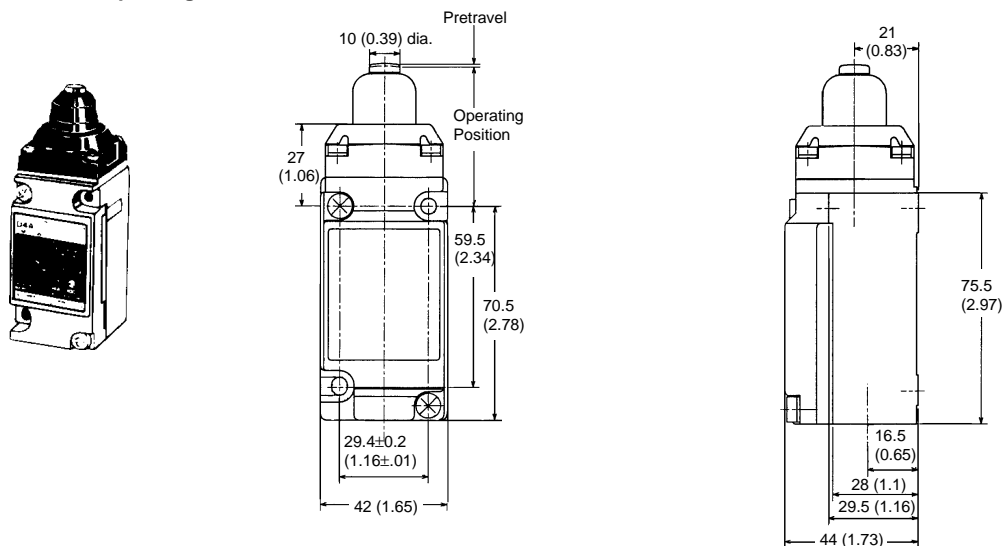
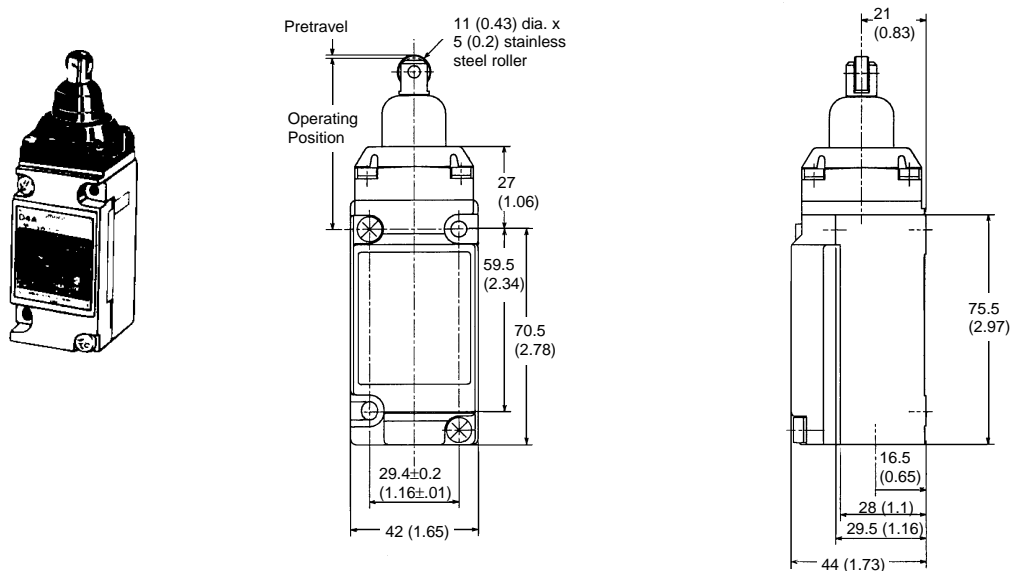
### D4A-□□07-HN Horizontal Roller Side Plunger Switch



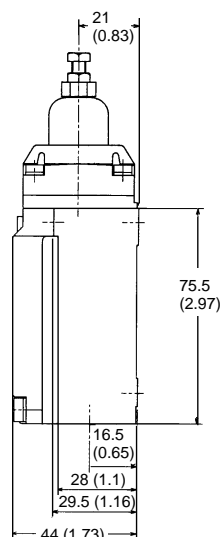
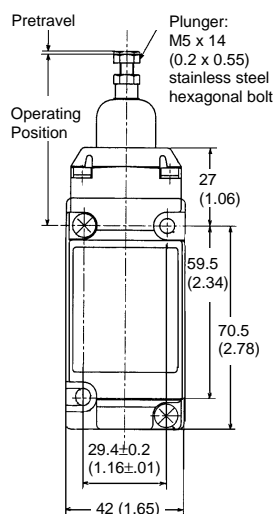
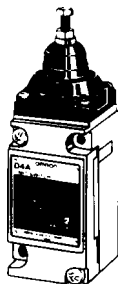
### D4A-□□07-VN Vertical Roller Side Plunger Switch



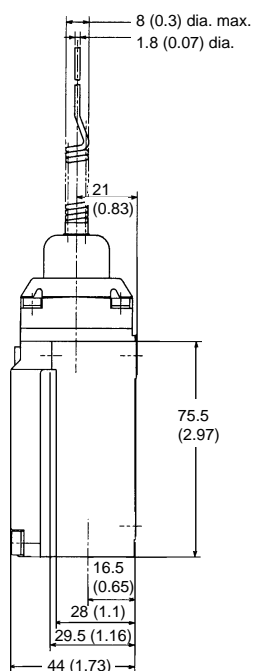
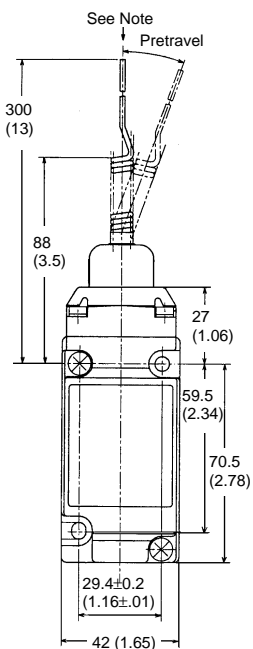
Unit: mm (inch)

**D4A-□□08N Adjustable Side Plunger Switch****D4A-□□09N Plain Top Plunger Switch****D4A-□□10N Roller Top Plunger Switch**

### D4A-□□11N Adjustable Top Plunger Switch

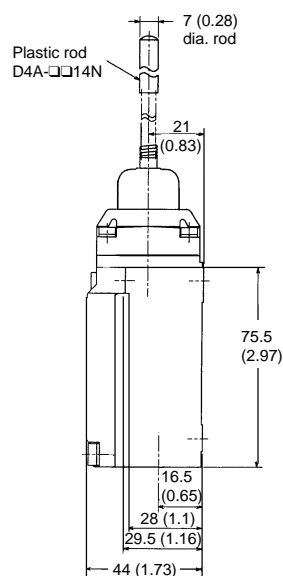
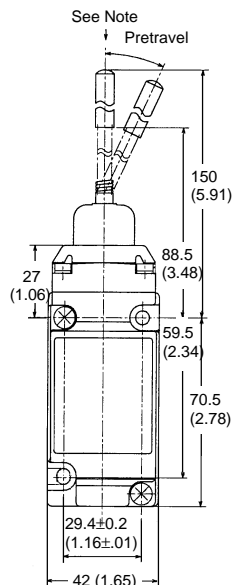
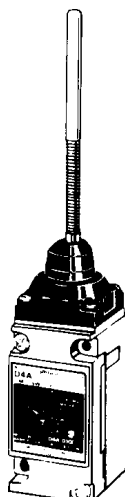


### D4A-□□12N Spring Wire Wobble Lever Switch



Note:  
The coil spring may  
be operated from any  
direction except  
axial direction (↓).

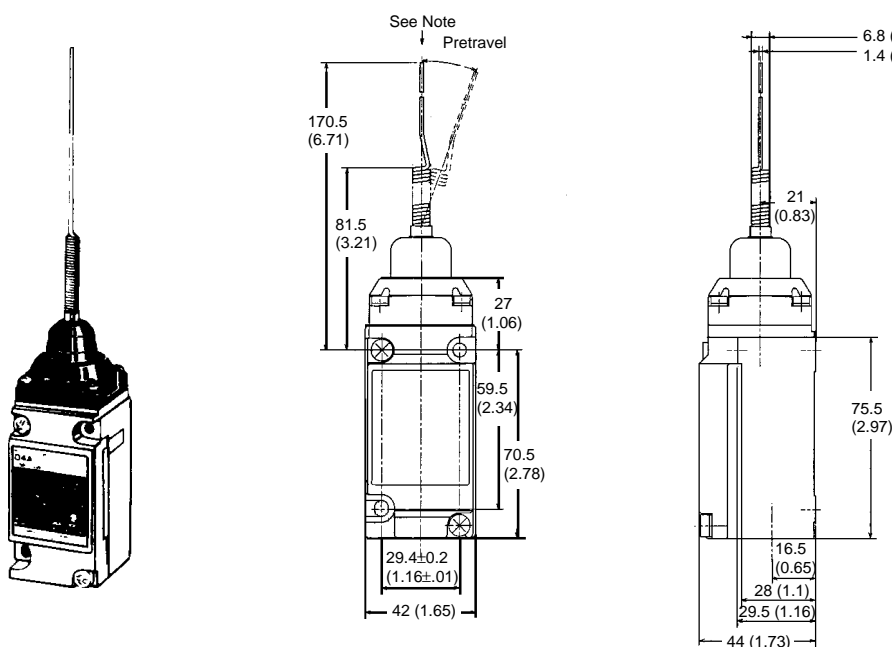
### D4A-□□14N Plastic Rod, D4A-□□24N Stainless Steel Spring, Plastic Rod Wobble Lever Switch



Note:  
The coil spring may  
be operated from any  
direction except  
axial direction (↓).

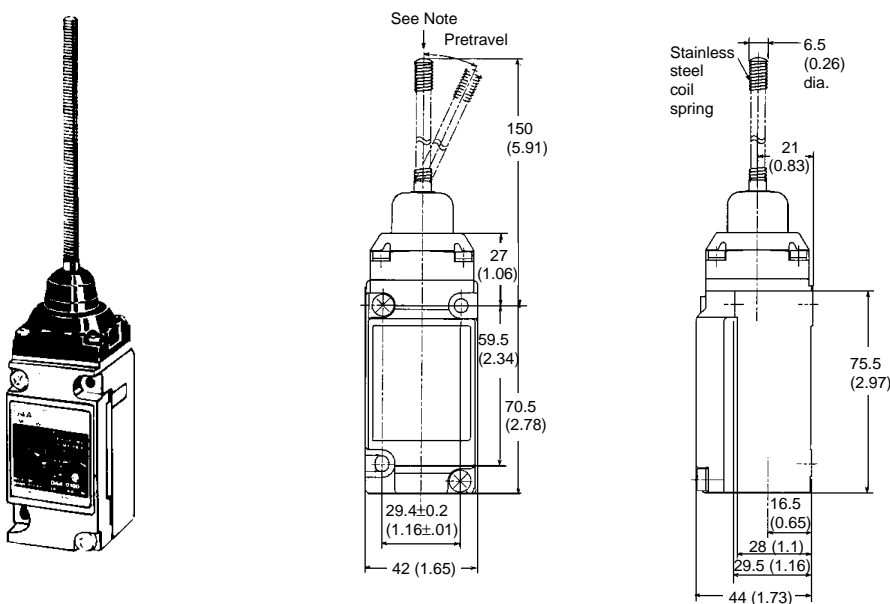
Unit: mm (inch)

### D4A-□□15N Cat Whisker Wobble Lever Switch



Note:  
The coil spring may  
be operated from any  
direction except  
axial direction ( ↓ ).

### D4A-□□16N Coil Spring Wobble Lever Switch



Note:  
The coil spring may  
be operated from any  
direction except  
axial direction ( ↓ ).

## Options

### ■ VITON® SEALS

Model D4A-N switches are supplied with nitrile butadiene rubber (NBR) seals as standard. Optional Viton® fluoroelastomer seals are available for applications where the environment has ambient temperatures to 120°C (248°F) or requires increased chemical resistance. Viton seals resist such industrial fluids as Cellulube, Fyrquell, Houghto-Safe, Pydraul and other special cutting and hydraulic oils.

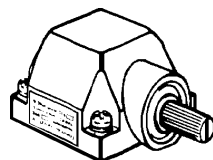
Viton—Reg. TM E.I. DuPont de Nemours & Co.



# Installation

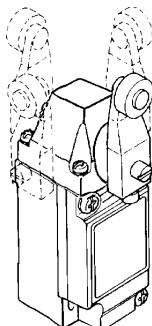
## ■ CHANGING ACTUATOR AND LEVER ORIENTATION

Operating heads of rotary actuator switches may be positioned and secured in any of four 90° positions to meet applications needs. Loosen the four screws on the switch head using a flat-blade or Phillips screwdriver. Lift the head and turn it to the desired 90° position. Tighten the screws when done.

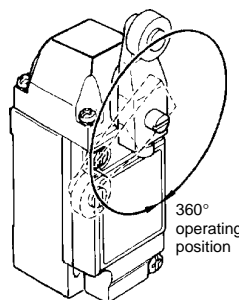


Four M4 x 12

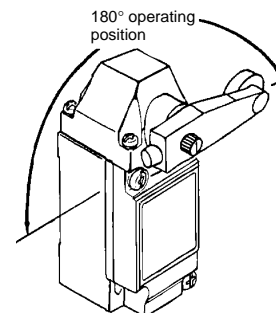
The lever for rotary actuator switches may be positioned anywhere in 360° around the shaft.



Head rotates to any of four 90° positions



360° operating position

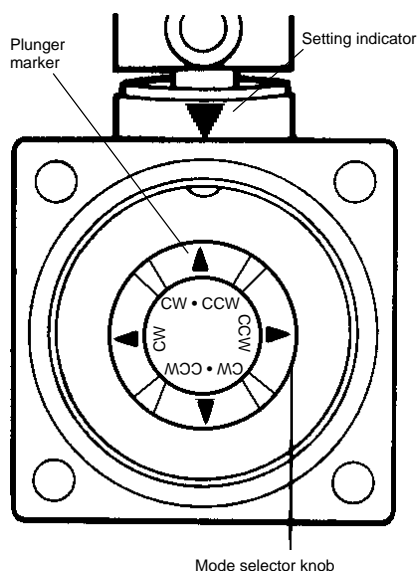


180° operating position

## ■ SELECTING OPERATING DIRECTION

Rotary actuator switches can be set for clockwise 90° operation (CW) on the right side, counterclockwise 90° operation (CCW) on the left side, or both ways for 90° operation on either the left or right side (CW+CCW).

To change the operating direction, loosen the four screws on the switch head using a flat-blade or Phillips screwdriver. Lift off the head. The mode selector knob is inside the head as shown at right. The plunger marker inside is set for both ways operation (CW+CCW). Turn the knob to the desired operation setting. Replace the head in the direction suitable for the installation and tighten the four screws.



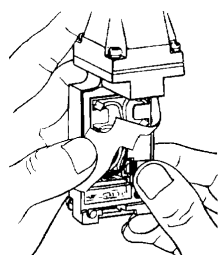
## ■ CHANGING STATUS INDICATOR TO MATCH SWITCH CONTACTS

Switches with LED or neon lamp status indicators are set to Normally Open at the factory. The indication can be changed to Normally Closed following these simple instructions.

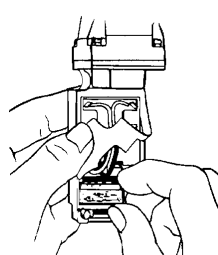
1. Loosen the front panel screws and remove the switch body from the receptacle.
2. Lift the rubber sealing material to reveal the indicator unit.
3. Remove the indicator unit.
4. Turn the indicator unit over and replace it so the desired message appears in the window.
5. Reassemble the switch body and receptacle.

Neon lamp indicator messages		LED indicator messages	
Normally Closed	Normally Open	Normally Closed	Normally Open

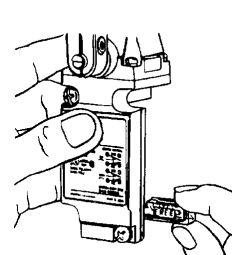
### Switch Status Indicator Access



Lift seal



Pull indicator unit



Invert indicator then reinstall

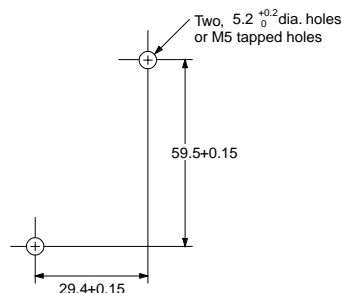
# Precautions

## ■ MOUNTING

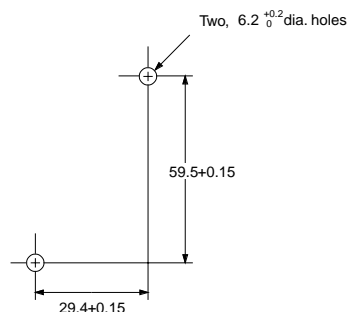
1/2-14NPT Conduit

D4A-1□□□N, D4A-2□□□N

### Front Mounting



### Rear Mounting (Rear View)



## ■ TIGHTENING TORQUE APPLIED TO HEAD AND SWITCH BODY

To maintain the high sealing capability of the limit switch, tighten the screws for the head and switch body with the following torques: Head (four 12 mm M4 screws): 1.2 to 1.4 N (12 to 14 kgf • cm); Switch body (two 20 mm M5 screws): 2.4 to 2.7 N (24 to 28 kgf • cm).

## ■ SOLDERLESS TERMINALS

The D4A-□N with DPDT double-break incorporates solderless terminals.

## ■ OPERATING

The operating methods, cam and dog shapes, operating frequency, and overtravel (OT) have a big influence on the life and accuracy of the limit switch. The shape of the cam should be as smooth as possible.

A marginal overtravel (OT) value should be set. The ideal value is the rated OT value x 0.7.

The actuator should not be removed to change the operating position.

## ■ CONNECTORS

Use SC connectors.

NOTE: DIMENSIONS ARE SHOWN IN MILLIMETERS. To convert millimeters to inches divide by 25.4.

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