



For full product information, visit www.sti.com. Use the SpeedSpec code or scan the QR Code for quick access to the specific web page.

Safety Limit Switch

- Upgraded safety limit switches based on the popular D4D, providing a full lineup conforming to international standards
- Lineup includes three contact models with 2NC/1NO and 3NC contact forms in addition to the previous contact forms 1NC/1NO, and 2NC. Models with MBB contacts are also available.
- M12-connector models are available, saving on labor and simplifying replacement
- Standardized gold-clad contacts provide high contact reliability. Can be used with both standard loads and microloads.
- Conforms to EN115, EN81-1, and EN81-2 (slow-action models only)
- Lineup includes both slow-action and snap-action models with Zb contacts
- Certified standards: UL, EN (TÜV), and CCC



G

Specifications

Standards and EC Directives

Conforms to the following EC Directives:

- Machinery Directive
- Low Voltage Directive
- EN50047
- EN60204-1
- EN1088
- GS-ET-15

Certified Standards

Certification body	Standard	File No.
TÜV SÜD	EN 60947-5-1 (certified direct opening)	Consult your representative for details.
UL *1	UL 508, CSA C22.2 No. 14	E76675
CQC (CCC) *2	GB14048.5	2004010305105973

*1.Certification for CSA C22.2 No. 14 is authorized by the UL mark.

*2.Only certain models have been certified.

Certified Standard Ratings

TÜV (EN 60947-5-1), CCC (GB14048.5)

Item	Utilization category	AC-15	DC-13
Rated operating current (Ie)		3 A	0.27 A
Rated operating voltage (Ue)		240 V	250 V

Note: Use a 10 A fuse type gI or gG that conforms to IEC 60269 as a short-circuit protection device. This fuse is not built into the Switch.

UL/CSA (UL 508, CSA C22.2 No. 14) C300

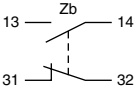
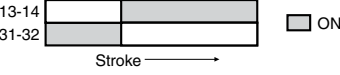
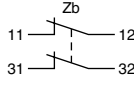
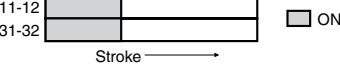
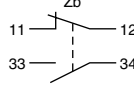
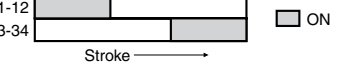
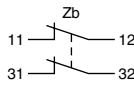
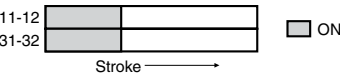
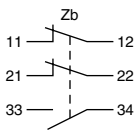
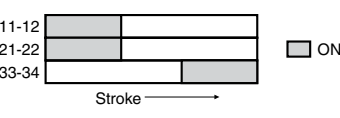
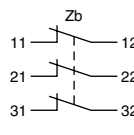
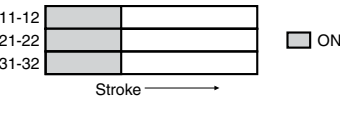
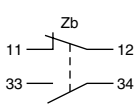
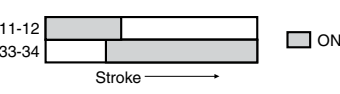
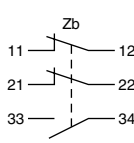
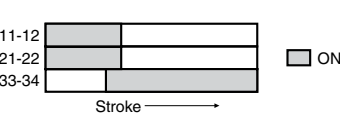
Rated voltage	Carry current	Current (A)		Volt-amperes (VA)	
		Make	Break	Make	Break
120 VAC	10 A	60	6	7,200	720
240 VAC		30	3		

Q300

Rated voltage	Carry current	Current (A)		Volt-amperes (VA)	
		Make	Break	Make	Break
125 VDC	2.5 A	0.55	0.55	69	69
250 VDC		0.27	0.27		

Connections

Contact Form

Model	Contact	Contact form	Operating pattern	Remarks
D4N-□1□	1NC/1NO (Snap-action)			Only NC contacts 31-32 have a certified direct opening mechanism. (→) The terminals 13-14 and 31-32 can be used as unlike poles.
D4N-□2□	2NC (Snap-action)			Only NC contacts 11-12 and 31-32 have a certified direct opening mechanism. (→) The terminals 11-12 and 31-32 can be used as unlike poles.
D4N-□A□	1NC/1NO (Slow-action)			Only NC contacts 11-12 have a certified direct opening mechanism. (→) The terminals 11-12 and 33-34 can be used as unlike poles.
D4N-□B□	2NC (Slow-action)			Only NC contacts 11-12 and 31-32 have a certified direct opening mechanism. (→) The terminals 11-12 and 31-32 can be used as unlike poles.
D4N-□C□	2NC/1NO (Slow-action)			Only NC contacts 11-12 and 21-22 have a certified direct opening mechanism. (→) The terminals 11-12, 21-22, and 33-34 can be used as unlike poles.
D4N-□D□	3NC (Slow-action)			Only NC contacts 11-12, 21-22, and 31-32 have a certified direct opening mechanism. (→) The terminals 11-12, 21-22, and 31-32 can be used as unlike poles.
D4N-□E□	1NC/1NO MBB* (Slow-action)			Only NC contacts 11-12 have a certified direct opening mechanism. (→) The terminals 11-12 and 33-34 can be used as unlike poles.
D4N-□F□	2NC/1NO MBB* (Slow-action)			Only NC contacts 11-12 and 21-22 have a certified direct opening mechanism. (→) The terminals 11-12, 21-22 and 33-34 can be used as unlike poles.

Terminals are numbered according to EN50013 and the contact forms are according to IEC947-5-1.

*MBB (Make Before Break) contacts have an overlapping structure, so that before the normally closed contact (NC) opens, the normally open contact (NO) closes.

Dimensions

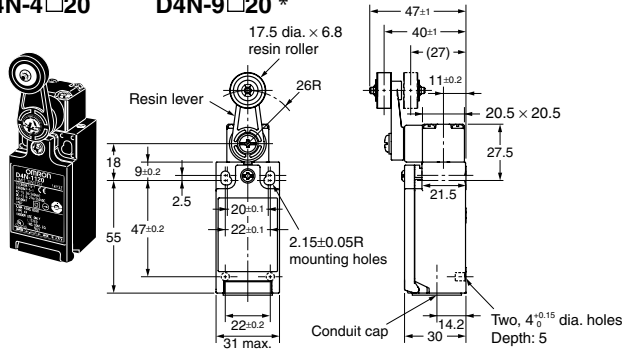
(mm)

Switches

1-conduit Models

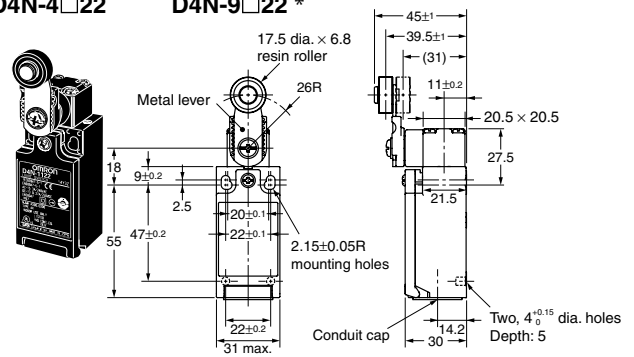
Roller Lever (Resin Lever, Resin Roller)

D4N-1□20 D4N-2□20
D4N-4□20 D4N-9□20 *



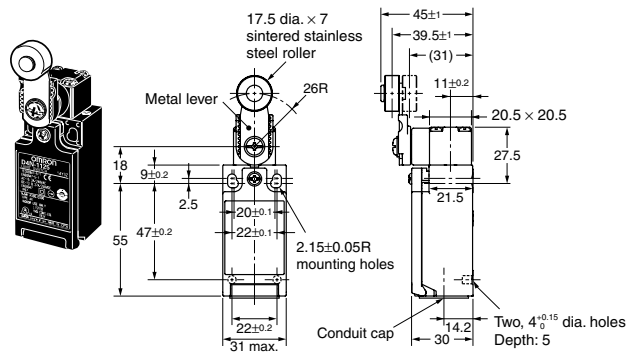
Roller Lever (Metal Lever, Resin Roller)

D4N-1□22 D4N-2□22
D4N-4□22 D4N-9□22 *



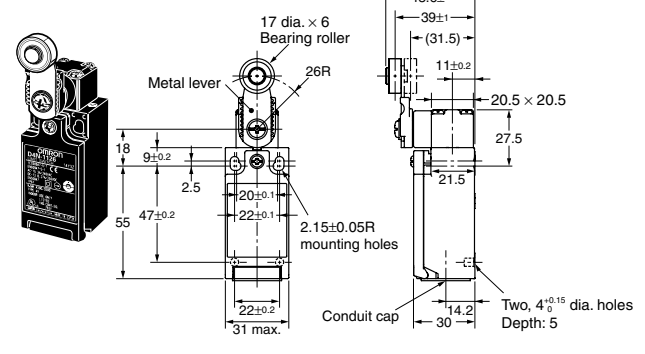
Roller Lever (Metal Lever, Metal Roller)

D4N-1□25 D4N-2□25
D4N-4□25 D4N-9□25 *



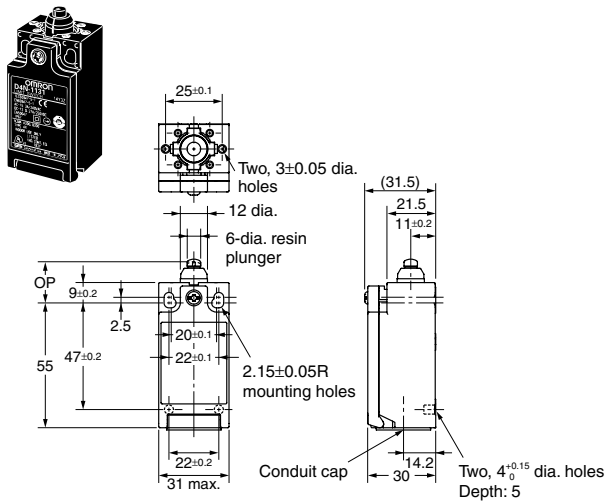
Roller Lever (Metal Lever, Bearing Roller)

D4N-1□26 D4N-2□26
D4N-4□26 D4N-9□26 *



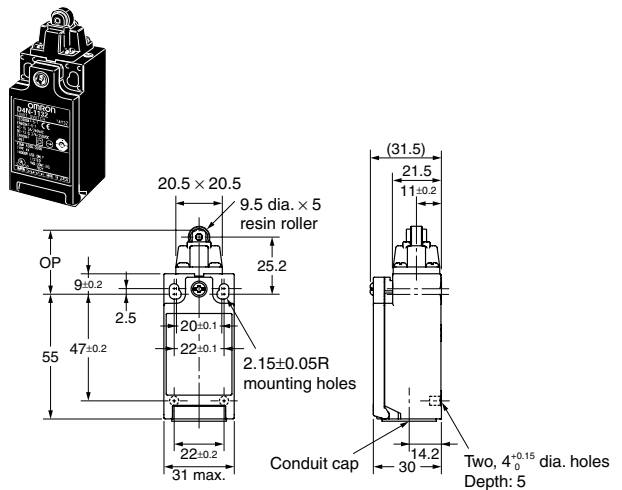
Plunger

D4N-1□31 D4N-2□31
D4N-4□31 D4N-9□31 *



Roller Plunger

D4N-1□32 D4N-2□32
D4N-4□32 D4N-9□32 *



Note: Each dimension has a tolerance of 0.4 mm unless otherwise specified.

Dimensions (continued)

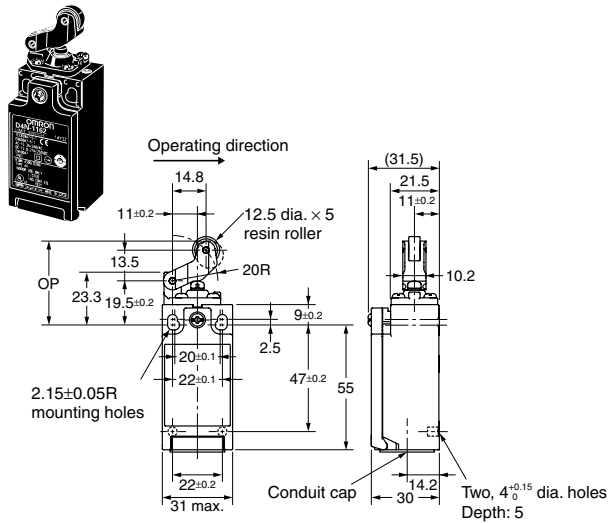
(mm)

Switches

1-conduit Models

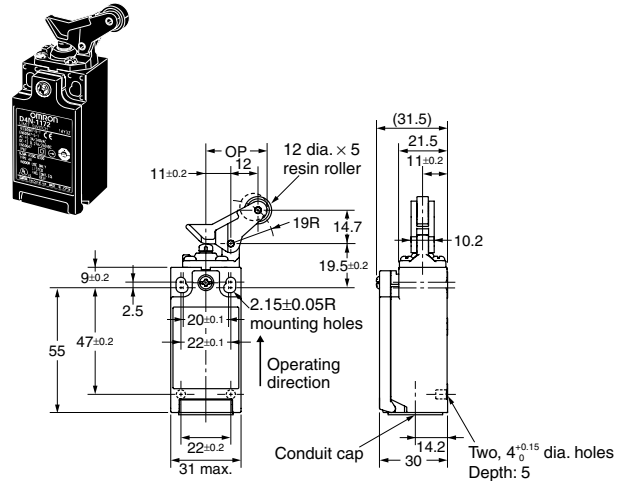
One-way Roller Arm Lever
(Horizontal)

- D4N-1□62 D4N-2□62
- D4N-4□62 D4N-9□62 *



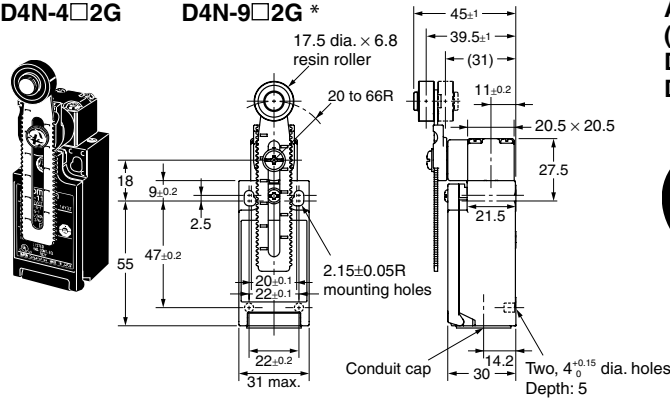
One-way Roller Arm Lever
(Vertical)

- D4N-1□72 D4N-2□72
- D4N-4□72 D4N-9□72 *



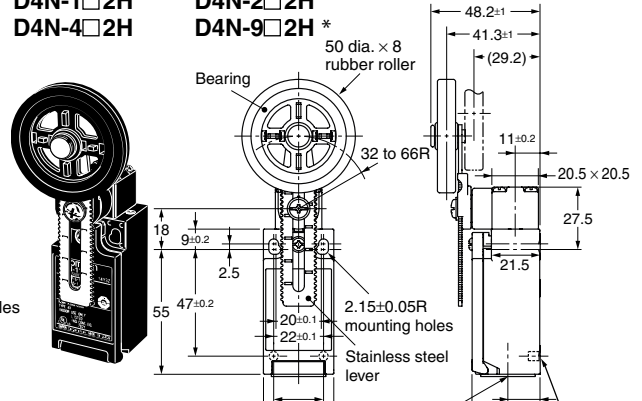
Adjustable Roller Lever, Form Lock
(with Metal Lever, Resin Roller)

- D4N-1□2G D4N-2□2G
- D4N-4□2G D4N-9□2G *



Adjustable Roller Lever, Form Lock
(with Metal Lever, Rubber Roller)

- D4N-1□2H D4N-2□2H
- D4N-4□2H D4N-9□2H *



Note: Each dimension has a tolerance of 0.4 mm unless otherwise specified.

Dimensions (continued)

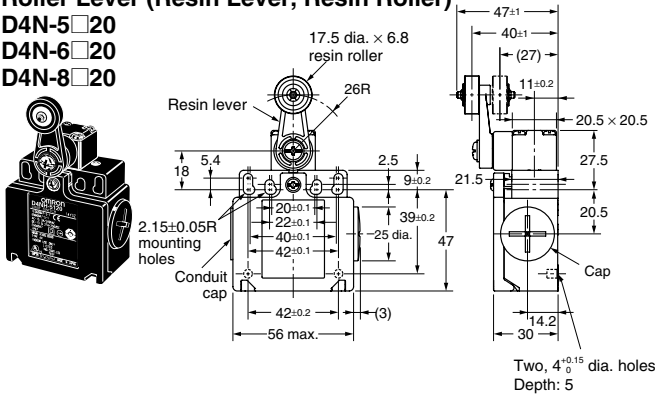
(mm)

Switches

2-conduit Models

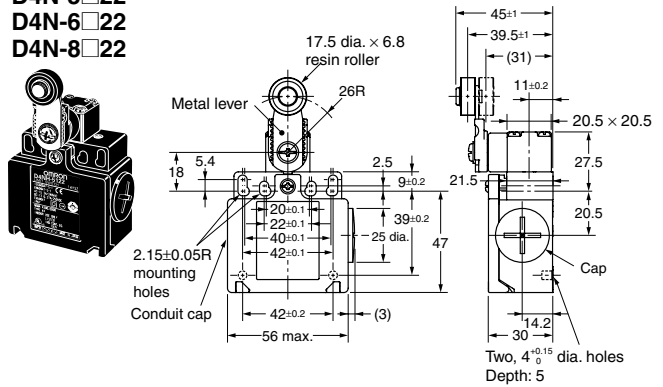
Roller Lever (Resin Lever, Resin Roller)

- D4N-5□20
- D4N-6□20
- D4N-8□20



Roller Lever (Metal Lever, Resin Roller)

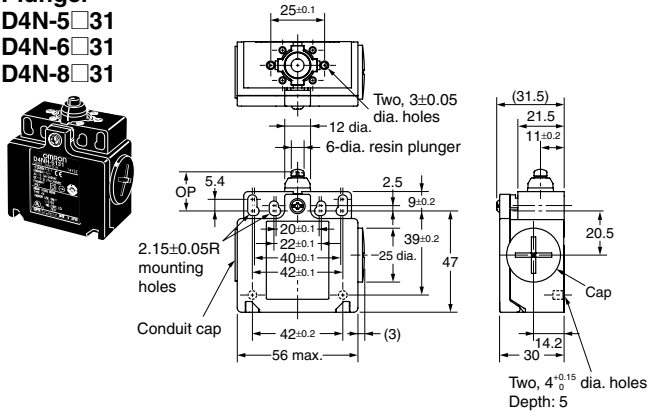
- D4N-5□22
- D4N-6□22
- D4N-8□22



G

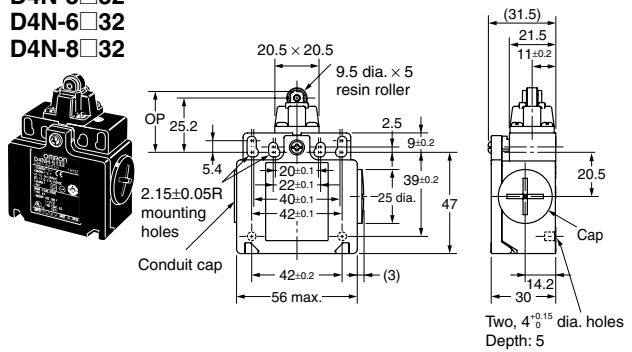
Plunger

- D4N-5□31
- D4N-6□31
- D4N-8□31



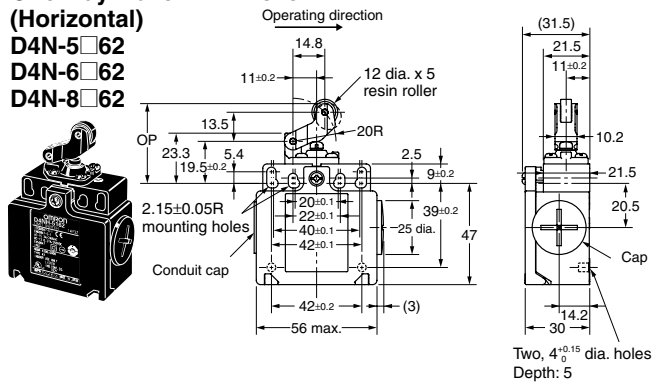
Roller Plunger

- D4N-5□32
- D4N-6□32
- D4N-8□32



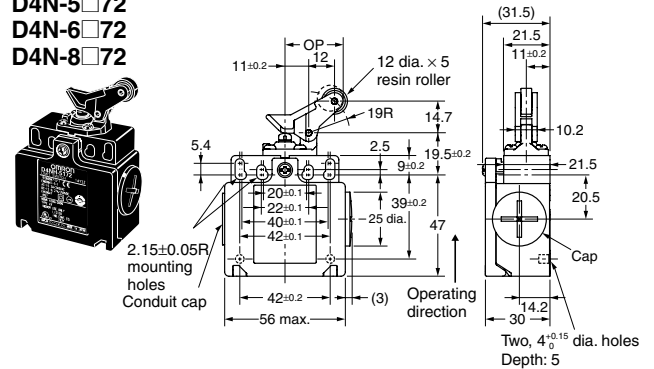
One-way Roller Arm Lever (Horizontal)

- D4N-5□62
- D4N-6□62
- D4N-8□62



One-way Roller Arm Lever (Vertical)

- D4N-5□72
- D4N-6□72
- D4N-8□72



Note: Each dimension has a tolerance of 0.4 mm unless otherwise specified.

Dimensions (continued)

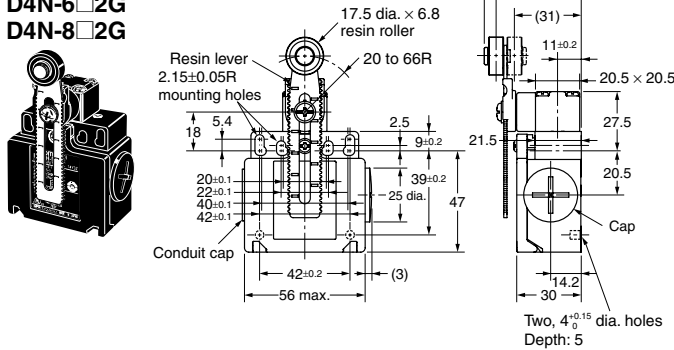
(mm)

Switches

2-conduit Models

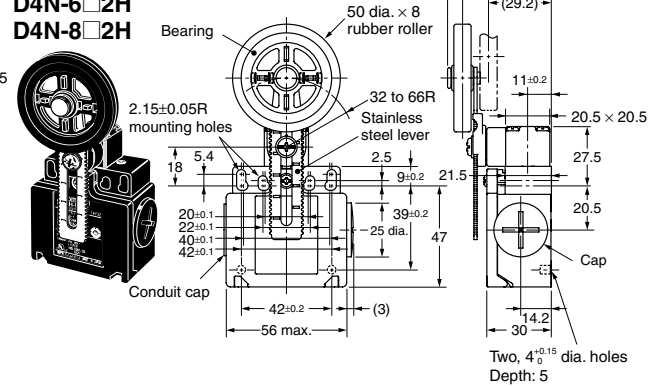
Adjustable Roller Lever, Form Lock
(with Metal Lever, Resin Roller)

D4N-6□2G
D4N-8□2G



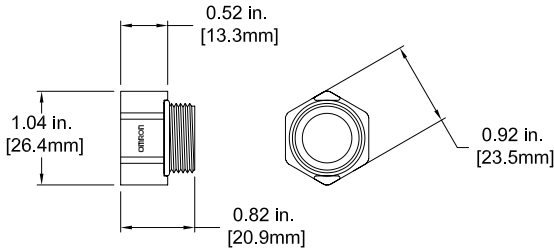
Adjustable Roller Lever, Form Lock
(with Metal Lever, Rubber Roller)

D4N-6□2H
D4N-8□2H



Note: Each dimension has a tolerance of 0.4 mm unless otherwise specified.

M20-NPT Adapter



Ordering

Model Number Structure

D4N - □ □ □ - □

① ② ③ ④

① Conduit size

- 1: Pg13.5 (1-conduit)
- 2: G1/2 (1-conduit)
- 4: M20 (1-conduit)
- 6: G1/2 (2-conduit)
- 8: M20 (2-conduit)
- 9: M12 connector (1-conduit)

② Built-in Switch

- 1: 1NC/1NO (snap-action)
- 2: 2NC (snap-action)
- A: 1NC/1NO (slow-action)
- B: 2NC (slow-action)
- C: 2NC/1NO (slow-action)
- D: 3NC (slow-action)
- E: 1NC/1NO (MBB contact) (slow-action)
- F: 2NC/1NO (MBB contact) (slow-action)

③ Head and Actuator

- 20: Roller lever (resin lever, resin roller)
- 22: Roller lever (metal lever, resin roller)
- 25: Roller lever (metal lever, metal roller)
- 26: Roller lever (metal lever, bearing roller)
- 2G: Adjustable roller lever, form lock (metal lever, resin roller)
- 2H: Adjustable roller lever, form lock (metal lever, rubber roller)
- 31: Top Plunger
- 32: Top Roller Plunger
- 62: One-way roller arm lever (horizontal)
- 72: One-way roller arm lever (vertical)
- 80: Cat whisker (not available for 2-conduit models)*
- 87: Plastic rod (not available for 2-conduit models)*
- RE: Fork lever lock (right operation) (not available for 2-conduit models)*
- LE: Fork lever lock (left operation) (not available for 2-conduit models)*

④ M20-to-NPT Adapter











- Blank: Adapter is not included
- NPT: Adapter is included*

*Not available for 2-conduit models

Ordering (continued)

List of Models

Switches with Two Contacts (with Direct Opening Mechanism)











Actuator	Conduit size		Built-in switch mechanism								
			1NC/1NO (Snap-action)		2NC (Snap-action)		1NC/1NO (Slow-action)		2NC (Slow-action)		
			Model	Direct opening	Model	Direct opening	Model	Direct opening	Model	Direct opening	
Roller lever (resin lever, resin roller) 	1-conduit	NPT	D4N-4120-NPT	⊙	D4N-4220-NPT	⊙	D4N-4A20-NPT	⊙	D4N-4B20-NPT	⊙	
		M20	D4N-4120		D4N-4220		D4N-4A20		D4N-4B20		
		M12 connector	D4N-9120		D4N-9220		D4N-9A20		D4N-9B20		
	2-conduit	M20	D4N-8120	⊙	D4N-8220	⊙	D4N-8A20	⊙	D4N-8B20	⊙	
	Roller lever (metal lever, resin roller) 	1-conduit	NPT	D4N-4122-NPT	⊙	D4N-4222-NPT	⊙	D4N-4A22-NPT	⊙	D4N-4B22-NPT	⊙
			M20	D4N-4122		D4N-4222		D4N-4A22		D4N-4B22	
M12 connector			D4N-9122	D4N-9222		D4N-9A22		D4N-9B22			
2-conduit		M20	D4N-8122	⊙	D4N-8222	⊙	D4N-8A22	⊙	D4N-8B22	⊙	
Roller lever (metal lever, metal roller) 		1-conduit	NPT	D4N-4125-NPT	⊙	D4N-4225-NPT	⊙	D4N-4A25-NPT	⊙	D4N-4B25-NPT	⊙
			M20	D4N-4125		D4N-4225		D4N-4A25		D4N-4B25	
	M12 connector		D4N-9125	D4N-9225		D4N-9A25		D4N-9B25			
	2-conduit	M20	D4N-8125	⊙	D4N-8225	⊙	D4N-8A25	⊙	D4N-8B25	⊙	
	Roller lever (metal lever, bearing roller) 	1-conduit	NPT	D4N-4126-NPT	⊙	D4N-4226-NPT	⊙	D4N-4A26-NPT	⊙	D4N-4B26-NPT	⊙
			M20	D4N-4126		D4N-4226		D4N-4A26		D4N-4B26	
M12 connector			D4N-9126	D4N-9226		D4N-9A26		D4N-9B26			
2-conduit		M20	D4N-8126	⊙	D4N-8226	⊙	D4N-8A26	⊙	D4N-8B26	⊙	
Plunger 		1-conduit	NPT	D4N-4131-NPT	⊙	D4N-4231-NPT	⊙	D4N-4A31-NPT	⊙	D4N-4B31-NPT	⊙
			M20	D4N-4131		D4N-4231		D4N-4A31		D4N-4B31	
	M12 connector		D4N-9131	D4N-9231		D4N-9A31		D4N-9B31			
	2-conduit	M20	D4N-8131	⊙	D4N-8231	⊙	D4N-8A31	⊙	D4N-8B31	⊙	
	Roller plunger 	1-conduit	NPT	D4N-4132-NPT	⊙	D4N-4232-NPT	⊙	D4N-4A32-NPT	⊙	D4N-4B32-NPT	⊙
			M20	D4N-4132		D4N-4232		D4N-4A32		D4N-4B32	
M12 connector			D4N-9132	D4N-9232		D4N-9A32		D4N-9B32			
2-conduit		M20	D4N-8132	⊙	D4N-8232	⊙	D4N-8A32	⊙	D4N-8B32	⊙	
One-way roller arm lever (horizontal) 		1-conduit	NPT	D4N-4162-NPT	⊙	D4N-4262-NPT	⊙	D4N-4A62-NPT	⊙	D4N-4B62-NPT	⊙
			M20	D4N-4162		D4N-4262		D4N-4A62		D4N-4B62	
	M12 connector		D4N-9162	D4N-9262		D4N-9A62		D4N-9B62			
	2-conduit	M20	D4N-8162	⊙	D4N-8262	⊙	D4N-8A62	⊙	D4N-8B62	⊙	
	One-way roller arm lever (vertical) 	1-conduit	NPT	D4N-4172-NPT	⊙	D4N-4272-NPT	⊙	D4N-4A72-NPT	⊙	D4N-4B72-NPT	⊙
			M20	D4N-4172		D4N-4272		D4N-4A72		D4N-4B72	
M12 connector			D4N-9172	D4N-9272		D4N-9A72		D4N-9B72			
2-conduit		M20	D4N-8172	⊙	D4N-8272	⊙	D4N-8A72	⊙	D4N-8B72	⊙	
Adjustable roller lever, form lock (metal lever, resin roller) 		1-conduit	NPT	D4N-412G-NPT	⊙	D4N-422G-NPT	⊙	D4N-4A2G-NPT	⊙	D4N-4B2G-NPT	⊙
			M20	D4N-412G		D4N-422G		D4N-4A2G		D4N-4B2G	
	M12 connector		D4N-912G	D4N-922G		D4N-9A2G		D4N-9B2G			
	2-conduit	M20	D4N-812G	⊙	D4N-822G	⊙	D4N-8A2G	⊙	D4N-8B2G	⊙	
	Adjustable roller lever, form lock (metal lever, rubber roller) 	1-conduit	NPT	D4N-412H-NPT	⊙	D4N-422H-NPT	⊙	D4N-4A2H-NPT	⊙	D4N-4B2H-NPT	⊙
			M20	D4N-412H		D4N-422H		D4N-4A2H		D4N-4B2H	
M12 connector			D4N-912H	D4N-922H		D4N-9A2H		D4N-9B2H			
2-conduit		M20	D4N-812H	⊙	D4N-822H	⊙	D4N-8A2H	⊙	D4N-8B2H	⊙	

Note: It's recommended that M20 be used for Switches to be exported to Europe and NPT be used for Switches to be exported to North American countries.

Ordering (continued)

List of Models

Switches with Three Contacts and MBB Contacts (with Direct Opening Mechanism)

Actuator	Conduit size		Built-in switch mechanism							
			2NC/1NO (Slow-action)		3NC (Slow-action)		1NC/1NO MBB (Slow-action)		2NC/1NO MBB (Slow-action)	
			Model	Direct opening	Model	Direct opening	Model	Direct opening	Model	Direct opening
Roller lever (resin lever, resin roller) 	1-conduit	NPT	D4N-4C20-NPT	⊖	D4N-4D20-NPT	⊖	D4N-4E20-NPT	⊖	D4N-4F20-NPT	⊖
		M20	D4N-4C20	⊖	D4N-4D20	⊖	D4N-4E20	⊖	D4N-4F20	⊖
		M12 connector	---	---	---	---	---	---	---	---
Roller lever (metal lever, resin roller) 	1-conduit	NPT	D4N-4C22-NPT	⊖	D4N-4D22-NPT	⊖	D4N-4E22-NPT	⊖	D4N-4F22-NPT	⊖
		M20	D4N-4C22	⊖	D4N-4D22	⊖	D4N-4E22	⊖	D4N-4F22	⊖
		M12 connector	---	---	---	---	---	---	---	---
Roller lever (metal lever, metal roller) 	1-conduit	NPT	D4N-4C25-NPT	⊖	D4N-4D25-NPT	⊖	D4N-4E25-NPT	⊖	D4N-4F25-NPT	⊖
		M20	D4N-4C25	⊖	D4N-4D25	⊖	D4N-4E25	⊖	D4N-4F25	⊖
		M12 connector	---	---	---	---	---	---	---	---
Roller lever (metal lever, bearing roller) 	1-conduit	NPT	D4N-4C26-NPT	⊖	D4N-4D26-NPT	⊖	D4N-4E26-NPT	⊖	D4N-4F26-NPT	⊖
		M20	D4N-4C26	⊖	D4N-4D26	⊖	D4N-4E26	⊖	D4N-4F26	⊖
		M12 connector	---	---	---	---	---	---	---	---
Plunger 	1-conduit	NPT	D4N-4C31-NPT	⊖	D4N-4D31-NPT	⊖	D4N-4E31-NPT	⊖	D4N-4F31-NPT	⊖
		M20	D4N-4C31	⊖	D4N-4D31	⊖	D4N-4E31	⊖	D4N-4F31	⊖
		M12 connector	---	---	---	---	---	---	---	---
Roller plunger 	1-conduit	NPT	D4N-4C32-NPT	⊖	D4N-4D32-NPT	⊖	D4N-4E32-NPT	⊖	D4N-4F32-NPT	⊖
		M20	D4N-4C32	⊖	D4N-4D32	⊖	D4N-4E32	⊖	D4N-4F32	⊖
		M12 connector	---	---	---	---	---	---	---	---
One-way roller arm lever (horizontal) 	1-conduit	NPT	D4N-4C62-NPT	⊖	D4N-4D62-NPT	⊖	D4N-4E62-NPT	⊖	D4N-4F62-NPT	⊖
		M20	D4N-4C62	⊖	D4N-4D62	⊖	D4N-4E62	⊖	D4N-4F62	⊖
		M12 connector	---	---	---	---	---	---	---	---
One-way roller arm lever (vertical) 	1-conduit	NPT	D4N-4C72-NPT	⊖	D4N-4D72-NPT	⊖	D4N-4E72-NPT	⊖	D4N-4F72-NPT	⊖
		M20	D4N-4C72	⊖	D4N-4D72	⊖	D4N-4E72	⊖	D4N-4F72	⊖
		M12 connector	---	---	---	---	---	---	---	---
Adjustable roller lever, form lock (metal lever, resin roller) 	1-conduit	NPT	D4N-4C2G-NPT	⊖	D4N-4D2G-NPT	⊖	D4N-4E2G-NPT	⊖	D4N-4F2G-NPT	⊖
		M20	D4N-4C2G	⊖	D4N-4D2G	⊖	D4N-4E2G	⊖	D4N-4F2G	⊖
		M12 connector	---	---	---	---	---	---	---	---
Adjustable roller lever, form lock (metal lever, rubber roller) 	1-conduit	NPT	D4N-4C2H-NPT	⊖	D4N-4D2H-NPT	⊖	D4N-4E2H-NPT	⊖	D4N-4F2H-NPT	⊖
		M20	D4N-4C2H	⊖	D4N-4D2H	⊖	D4N-4E2H	⊖	D4N-4F2H	⊖
		M12 connector	---	---	---	---	---	---	---	---
	2-conduit	M20	D4N-8C20	⊖	D4N-8D20	⊖	D4N-8E20	⊖	D4N-8F20	⊖
		M20	D4N-8C22	⊖	D4N-8D22	⊖	D4N-8E22	⊖	D4N-8F22	⊖
		M20	D4N-8C25	⊖	D4N-8D25	⊖	D4N-8E25	⊖	D4N-8F25	⊖
	2-conduit	M20	D4N-8C26	⊖	D4N-8D26	⊖	D4N-8E26	⊖	D4N-8F26	⊖
		M20	D4N-8C31	⊖	D4N-8D31	⊖	D4N-8E31	⊖	D4N-8F31	⊖
		M20	D4N-8C32	⊖	D4N-8D32	⊖	D4N-8E32	⊖	D4N-8F32	⊖
	2-conduit	M20	D4N-8C62	⊖	D4N-8D62	⊖	D4N-8E62	⊖	D4N-8F62	⊖
		M20	D4N-8C72	⊖	D4N-8D72	⊖	D4N-8E72	⊖	D4N-8F72	⊖
		M20	D4N-8C2G	⊖	D4N-8D2G	⊖	D4N-8E2G	⊖	D4N-8F2G	⊖
	2-conduit	M20	D4N-8C2H	⊖	D4N-8D2H	⊖	D4N-8E2H	⊖	D4N-8F2H	⊖
		M20	D4N-8C2H	⊖	D4N-8D2H	⊖	D4N-8E2H	⊖	D4N-8F2H	⊖
		M20	D4N-8C2H	⊖	D4N-8D2H	⊖	D4N-8E2H	⊖	D4N-8F2H	⊖

Note: It's recommended that M20 be used for Switches to be exported to Europe and NPT be used for Switches to be exported to North American countries.

