

# Miniature Safety Limit Switch D4N

## 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.
- Free of lead, cadmium, and hexavalent chrome, reducing the burden on the environment.
- Conforms to EN115 and EN81-1.
- Lineup includes both slow-action and snap-action models with Zb contacts.



**NEW**

**Note:** Contact your sales representative for details on models with safety standard certification.



### Caution

Be sure to read the *Safety Precautions* on page 19.

## Model Number Structure

### Model Number Legend

D4N-□□□□  
1 2 3

#### 1. Conduit/Connector size

- 1: Pg13.5 (1-conduit)
- 2: G1/2 (1-conduit)
- 3: 1/2-14NPT (1-conduit)
- 4: M20 (1-conduit)
- 5: Pg13.5 (2-conduit)
- 6: G1/2 (2-conduit)
- 7: 1/2-14NPT (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
- 87: Plastic rod
- RE: Fork lever lock (right operation)
- LE: Fork lever lock (left operation)

# Ordering Information

## List of Models


### Switches with Two Contacts








Actuator	Conduit size		Built-in switch mechanism							
			1NC/1NO (Snap-action)		2NC (Snap-action)		1NC/1NO (Slow-action)		2NC (Slow-action)	
			Direct opening	Model	Direct opening	Model	Direct opening	Model	Direct opening	Model
Roller lever (resin lever, resin roller) 	1-conduit	Pg13.5	⊖	D4N-1120	⊖	D4N-1220	⊖	D4N-1A20	⊖	D4N-1B20
		G1/2		D4N-2120		D4N-2220		D4N-2A20		D4N-2B20
		1/2-14NPT		D4N-3120		D4N-3220		D4N-3A20		D4N-3B20
		M20		D4N-4120		D4N-4220		D4N-4A20		D4N-4B20
		M12 connector		D4N-9120		D4N-9220		D4N-9A20		D4N-9B20
	2-conduit	Pg13.5	⊖	D4N-5120	⊖	D4N-5220	⊖	D4N-5A20	⊖	D4N-5B20
		G1/2		D4N-6120		D4N-6220		D4N-6A20		D4N-6B20
		M20		D4N-8120		D4N-8220		D4N-8A20		D4N-8B20
Roller lever (metal lever, resin roller) 	1-conduit	Pg13.5	⊖	D4N-1122	⊖	D4N-1222	⊖	D4N-1A22	⊖	D4N-1B22
		G1/2		D4N-2122		D4N-2222		D4N-2A22		D4N-2B22
		1/2-14NPT		D4N-3122		D4N-3222		D4N-3A22		D4N-3B22
		M20		D4N-4122		D4N-4222		D4N-4A22		D4N-4B22
		M12 connector		D4N-9122		D4N-9222		D4N-9A22		D4N-9B22
	2-conduit	Pg13.5	⊖	D4N-5122	⊖	D4N-5222	⊖	D4N-5A22	⊖	D4N-5B22
		G1/2		D4N-6122		D4N-6222		D4N-6A22		D4N-6B22
		M20		D4N-8122		D4N-8222		D4N-8A22		D4N-8B22
Roller lever (metal lever, metal roller) 	1-conduit	Pg13.5	⊖	D4N-1125	⊖	D4N-1225	⊖	D4N-1A25	⊖	D4N-1B25
		G1/2		D4N-2125		D4N-2225		D4N-2A25		D4N-2B25
		1/2-14NPT		D4N-3125		D4N-3225		D4N-3A25		D4N-3B25
		M20		D4N-4125		D4N-4225		D4N-4A25		D4N-4B25
		M12 connector		D4N-9125		D4N-9225		D4N-9A25		D4N-9B25
Roller lever (metal lever, bearing roller) 	1-conduit	Pg13.5	⊖	D4N-1126	⊖	D4N-1226	⊖	D4N-1A26	⊖	D4N-1B26
		G1/2		D4N-2126		D4N-2226		D4N-2A26		D4N-2B26
		1/2-14NPT		D4N-3126		D4N-3226		D4N-3A26		D4N-3B26
		M20		D4N-4126		D4N-4226		D4N-4A26		D4N-4B26
		M12 connector		D4N-9126		D4N-9226		D4N-9A26		D4N-9B26
Plunger 	1-conduit	Pg13.5	⊖	D4N-1131	⊖	D4N-1231	⊖	D4N-1A31	⊖	D4N-1B31
		G1/2		D4N-2131		D4N-2231		D4N-2A31		D4N-2B31
		1/2-14NPT		D4N-3131		D4N-3231		D4N-3A31		D4N-3B31
		M20		D4N-4131		D4N-4231		D4N-4A31		D4N-4B31
		M12 connector		D4N-9131		D4N-9231		D4N-9A31		D4N-9B31
	2-conduit	Pg13.5	⊖	D4N-5131	⊖	D4N-5231	⊖	D4N-5A31	⊖	D4N-5B31
G1/2			D4N-6131		D4N-6231		D4N-6A31		D4N-6B31	
M20			D4N-8131		D4N-8231		D4N-8A31		D4N-8B31	
Roller plunger 	1-conduit	Pg13.5	⊖	D4N-1132	⊖	D4N-1232	⊖	D4N-1A32	⊖	D4N-1B32
		G1/2		D4N-2132		D4N-2232		D4N-2A32		D4N-2B32
		1/2-14NPT		D4N-3132		D4N-3232		D4N-3A32		D4N-3B32
		M20		D4N-4132		D4N-4232		D4N-4A32		D4N-4B32
		M12 connector		D4N-9132		D4N-9232		D4N-9A32		D4N-9B32
	2-conduit	Pg13.5	⊖	D4N-5132	⊖	D4N-5232	⊖	D4N-5A32	⊖	D4N-5B32
		G1/2		D4N-6132		D4N-6232		D4N-6A32		D4N-6B32
		M20		D4N-8132		D4N-8232		D4N-8A32		D4N-8B32



Actuator	Conduit size		Built-in switch mechanism									
			1NC/1NO (Snap-action)		2NC (Snap-action)		1NC/1NO (Slow-action)		2NC (Slow-action)			
			Direct opening	Model	Direct opening	Model	Direct opening	Model	Direct opening	Model		
One-way roller arm lever (horizontal) 	1-conduit	Pg13.5	⊖	D4N-1162	⊖	D4N-1262	⊖	D4N-1A62	⊖	D4N-1B62		
		G1/2		D4N-2162		D4N-2262		D4N-2A62		D4N-2B62		
		1/2-14NPT		D4N-3162		D4N-3262		D4N-3A62		D4N-3B62		
		M20		D4N-4162		D4N-4262		D4N-4A62		D4N-4B62		
		M12 connector		D4N-9162		D4N-9262		D4N-9A62		D4N-9B62		
	2-conduit	Pg13.5	⊖	D4N-5162	⊖	D4N-5262	⊖	D4N-5A62	⊖	D4N-5B62		
		G1/2		D4N-6162		D4N-6262		D4N-6A62		D4N-6B62		
		M20		D4N-8162		D4N-8262		D4N-8A62		D4N-8B62		
		One-way roller arm lever (vertical) 	1-conduit	Pg13.5	⊖	D4N-1172	⊖	D4N-1272	⊖	D4N-1A72	⊖	D4N-1B72
				G1/2		D4N-2172		D4N-2272		D4N-2A72		D4N-2B72
1/2-14NPT				D4N-3172		D4N-3272		D4N-3A72		D4N-3B72		
M20				D4N-4172		D4N-4272		D4N-4A72		D4N-4B72		
M12 connector				D4N-9172		D4N-9272		D4N-9A72		D4N-9B72		
2-conduit	Pg13.5		⊖	D4N-5172	⊖	D4N-5272	⊖	D4N-5A72	⊖	D4N-5B72		
	G1/2			D4N-6172		D4N-6272		D4N-6A72		D4N-6B72		
	M20			D4N-8172		D4N-8272		D4N-8A72		D4N-8B72		
	Adjustable roller lever, form lock (metal lever, resin roller) 		1-conduit	Pg13.5	⊖	D4N-112G	⊖	D4N-122G	⊖	D4N-1A2G	⊖	D4N-1B2G
				G1/2		D4N-212G		D4N-222G		D4N-2A2G		D4N-2B2G
1/2-14NPT				D4N-312G		D4N-322G		D4N-3A2G		D4N-3B2G		
M20				D4N-412G		D4N-422G		D4N-4A2G		D4N-4B2G		
M12 connector				D4N-912G		D4N-922G		D4N-9A2G		D4N-9B2G		
2-conduit		G1/2	⊖	D4N-612G	⊖	D4N-622G	⊖	D4N-6A2G	⊖	D4N-6B2G		
		M20		D4N-812G		D4N-822G		D4N-8A2G		D4N-8B2G		
		Adjustable roller lever, form lock (metal lever, rubber roller) 	1-conduit	Pg13.5	⊖	D4N-112H	⊖	D4N-122H	⊖	D4N-1A2H	⊖	D4N-1B2H
				G1/2		D4N-212H		D4N-222H		D4N-2A2H		D4N-2B2H
				1/2-14NPT		D4N-312H		D4N-322H		D4N-3A2H		D4N-3B2H
M20				D4N-412H		D4N-422H		D4N-4A2H		D4N-4B2H		
M12 connector				D4N-912H		D4N-922H		D4N-9A2H		D4N-9B2H		
2-conduit	G1/2		⊖	D4N-612H	⊖	D4N-622H	⊖	D4N-6A2H	⊖	D4N-6B2H		
	M20			D4N-812H		D4N-822H		D4N-8A2H		D4N-8B2H		

**Note:** It is recommended that M20 be used for Switches to be exported to Europe and 1/2-14NPT be used for Switches to be exported to North American countries.

### Switches with Three Contacts and MBB Contacts





Actuator	Conduit size		Built-in switch mechanism							
			2NC/1NO (Snap-action)		3NC (Snap-action)		1NC/1NO MBB (Slow-action)		2NC/1NO MBB (Slow-action)	
			Direct opening	Model	Direct opening	Model	Direct opening	Model	Direct opening	Model
Roller lever (resin lever, resin roller) 	1-conduit	Pg13.5	⊖	D4N-1C20	⊖	D4N-1D20	⊖	D4N-1E20	⊖	D4N-1F20
		G1/2		D4N-2C20		D4N-2D20		D4N-2E20		D4N-2F20
		1/2-14NPT		D4N-3C20		D4N-3D20		D4N-3E20		D4N-3F20
		M20		D4N-4C20		D4N-4D20		D4N-4E20		D4N-4F20
		M12 connector		---		---		D4N-9E20		---
	2-conduit	Pg13.5	⊖	D4N-5C20	⊖	D4N-5D20	⊖	D4N-5E20	⊖	D4N-5F20
		G1/2		D4N-6C20		D4N-6D20		D4N-6E20		D4N-6F20
		M20		D4N-8C20		D4N-8D20		D4N-8E20		D4N-8F20

Actuator	Conduit size		Built-in switch mechanism							
			2NC/1NO (Snap-action)		3NC (Snap-action)		1NC/1NO MBB (Slow-action)		2NC/1NO MBB (Slow-action)	
			Direct opening	Model	Direct opening	Model	Direct opening	Model	Direct opening	Model
Roller lever (metal lever, resin roller) 	1-conduit	Pg13.5	⊕	D4N-1C22	⊖	D4N-1D22	⊕	D4N-1E22	⊖	D4N-1F22
		G1/2		D4N-2C22		D4N-2D22		D4N-2E22		D4N-2F22
		1/2-14NPT		D4N-3C22		D4N-3D22		D4N-3E22		D4N-3F22
		M20		D4N-4C22		D4N-4D22		D4N-4E22		D4N-4F22
		M12 connector		---		---		D4N-9E22		---
	2-conduit	Pg13.5	⊕	D4N-5C22	⊖	D4N-5D22	⊕	D4N-5E22	⊖	D4N-5F22
		G1/2		D4N-6C22		D4N-6D22		D4N-6E22		D4N-6F22
		M20		D4N-8C22		D4N-8D22		D4N-8E22		D4N-8F22
Roller lever (metal lever, metal roller) 	1-conduit	Pg13.5	⊕	D4N-1C25	⊖	D4N-1D25	⊕	D4N-1E25	⊖	D4N-1F25
		G1/2		D4N-2C25		D4N-2D25		D4N-2E25		D4N-2F25
		1/2-14NPT		D4N-3C25		D4N-3D25		D4N-3E25		D4N-3F25
		M20		D4N-4C25		D4N-4D25		D4N-4E25		D4N-4F25
		M12 connector		---		---		D4N-9E25		---
	2-conduit	Pg13.5	⊕	D4N-5C25	⊖	D4N-5D25	⊕	D4N-5E25	⊖	D4N-5F25
		G1/2		D4N-6C25		D4N-6D25		D4N-6E25		D4N-6F25
		M20		D4N-8C25		D4N-8D25		D4N-8E25		D4N-8F25
Roller lever (metal lever, bearing roller) 	1-conduit	Pg13.5	⊕	D4N-1C26	⊖	D4N-1D26	⊕	D4N-1E26	⊖	D4N-1F26
		G1/2		D4N-2C26		D4N-2D26		D4N-2E26		D4N-2F26
		1/2-14NPT		D4N-3C26		D4N-3D26		D4N-3E26		D4N-3F26
		M20		D4N-4C26		D4N-4D26		D4N-4E26		D4N-4F26
		M12 connector		---		---		D4N-9E26		---
	2-conduit	Pg13.5	⊕	D4N-5C26	⊖	D4N-5D26	⊕	D4N-5E26	⊖	D4N-5F26
		G1/2		D4N-6C26		D4N-6D26		D4N-6E26		D4N-6F26
		M20		D4N-8C26		D4N-8D26		D4N-8E26		D4N-8F26
Plunger 	1-conduit	Pg13.5	⊕	D4N-1C31	⊖	D4N-1D31	⊕	D4N-1E31	⊖	D4N-1F31
		G1/2		D4N-2C31		D4N-2D31		D4N-2E31		D4N-2F31
		1/2-14NPT		D4N-3C31		D4N-3D31		D4N-3E31		D4N-3F31
		M20		D4N-4C31		D4N-4D31		D4N-4E31		D4N-4F31
		M12 connector		---		---		D4N-9E31		---
	2-conduit	Pg13.5	⊕	D4N-5C31	⊖	D4N-5D31	⊕	D4N-5E31	⊖	D4N-5F31
		G1/2		D4N-6C31		D4N-6D31		D4N-6E31		D4N-6F31
		M20		D4N-8C31		D4N-8D31		D4N-8E31		D4N-8F31
Roller plunger 	1-conduit	Pg13.5	⊕	D4N-1C32	⊖	D4N-1D32	⊕	D4N-1E32	⊖	D4N-1F32
		G1/2		D4N-2C32		D4N-2D32		D4N-2E32		D4N-2F32
		1/2-14NPT		D4N-3C32		D4N-3D32		D4N-3E32		D4N-3F32
		M20		D4N-4C32		D4N-4D32		D4N-4E32		D4N-4F32
		M12 connector		---		---		D4N-9E32		---
	2-conduit	Pg13.5	⊕	D4N-5C32	⊖	D4N-5D32	⊕	D4N-5E32	⊖	D4N-5F32
		G1/2		D4N-6C32		D4N-6D32		D4N-6E32		D4N-6F32
		M20		D4N-8C32		D4N-8D32		D4N-8E32		D4N-8F32
One-way roller arm lever (horizontal) 	1-conduit	Pg13.5	⊕	D4N-1C62	⊖	D4N-1D62	⊕	D4N-1E62	⊖	D4N-1F62
		G1/2		D4N-2C62		D4N-2D62		D4N-2E62		D4N-2F62
		1/2-14NPT		D4N-3C62		D4N-3D62		D4N-3E62		D4N-3F62
		M20		D4N-4C62		D4N-4D62		D4N-4E62		D4N-4F62
		M12 connector		---		---		D4N-9E62		----
	2-conduit	Pg13.5	⊕	D4N-5C62	⊖	D4N-5D62	⊕	D4N-5E62	⊖	D4N-5F62
		G1/2		D4N-6C62		D4N-6D62		D4N-6E62		D4N-6F62
		M20		D4N-8C62		D4N-8D62		D4N-8E62		D4N-8F62
One-way roller arm lever (vertical) 	1-conduit	Pg13.5	⊕	D4N-1C72	⊖	D4N-1D72	⊕	D4N-1E72	⊖	D4N-1F72
		G1/2		D4N-2C72		D4N-2D72		D4N-2E72		D4N-2F72
		1/2-14NPT		D4N-3C72		D4N-3D72		D4N-3E72		D4N-3F72
		M20		D4N-4C72		D4N-4D72		D4N-4E72		D4N-4F72
		M12 connector		---		---		D4N-9E72		---
	2-conduit	Pg13.5	⊕	D4N-5C72	⊖	D4N-5D72	⊕	D4N-5E72	⊖	D4N-5F72
		G1/2		D4N-6C72		D4N-6D72		D4N-6E72		D4N-6F72
		M20		D4N-8C72		D4N-8D72		D4N-8E72		D4N-8F72

Actuator	Conduit size		Built-in switch mechanism							
			2NC/1NO (Snap-action)		3NC (Snap-action)		1NC/1NO MBB (Slow-action)		2NC/1NO MBB (Slow-action)	
			Direct opening	Model	Direct opening	Model	Direct opening	Model	Direct opening	Model
Adjustable roller lever, form lock (metal lever, resin roller) 	1-conduit	Pg13.5	⊕	D4N-1C2G	⊕	D4N-1D2G	⊕	D4N-1E2G	⊕	D4N-1F2G
		G1/2		D4N-2C2G		D4N-2D2G		D4N-2E2G		D4N-2F2G
		1/2-14NPT		D4N-3C2G		D4N-3D2G		D4N-3E2G		D4N-3F2G
		M20		D4N-4C2G		D4N-4D2G		D4N-4E2G		D4N-4F2G
		M12 connector		---		---		D4N-9E2G		---
	2-conduit	G1/2	⊕	D4N-6C2G	⊕	D4N-6D2G	⊕	D4N-6E2G	⊕	D4N-6F2G
M20	⊕	D4N-8C2G	⊕	D4N-8D2G	⊕	D4N-8E2G	⊕	D4N-8F2G		
Adjustable roller lever, form lock (metal lever, rubber roller) 	1-conduit	Pg13.5	⊕	D4N-1C2H	⊕	D4N-1D2H	⊕	D4N-1E2H	⊕	D4N-1F2H
		G1/2		D4N-2C2H		D4N-2D2H		D4N-2E2H		D4N-2F2H
		1/2-14NPT		D4N-3C2H		D4N-3D2H		D4N-3E2H		D4N-3F2H
		M20		D4N-4C2H		D4N-4D2H		D4N-4E2H		D4N-4F2H
		M12 connector		---		---		D4N-9E2H		---
	2-conduit	G1/2	⊕	D4N-6C2H	⊕	D4N-6D2H	⊕	D4N-6E2H	⊕	D4N-6F2H
M20	⊕	D4N-8C2H	⊕	D4N-8D2H	⊕	D4N-8E2H	⊕	D4N-8F2H		

**Note:** It is recommended that M20 be used for Switches to be exported to Europe and 1/2-14NPT be used for Switches to be exported to North American countries.





### General-purpose Switches with Two Contacts

Actuator	Conduit size		Built-in switch mechanism							
			1NC/1NO (Snap-action)		2NC (Snap-action)		1NC/1NO (Slow-action)		2NC (Slow-action)	
			Direct opening	Model	Direct opening	Model	Direct opening	Model	Direct opening	Model
Fork lever lock (right operation) 	1-conduit	G1/2	---	---	---	---	---	D4N-2ARE	---	D4N-2BRE
		1/2-14NPT	---	---	---	---	---	D4N-3ARE	---	D4N-3BRE
		M20	---	---	---	---	---	D4N-4ARE	---	D4N-4BRE
	2-conduit	G1/2	---	---	---	---	---	D4N-6ARE	---	D4N-6BRE
		M20	---	---	---	---	---	D4N-8ARE	---	D4N-8BRE
Fork lever lock (left operation) 	1-conduit	G1/2	---	---	---	---	---	D4N-2ALE	---	D4N-2BLE
		1/2-14NPT	---	---	---	---	---	D4N-3ALE	---	D4N-3BLE
		M20	---	---	---	---	---	D4N-4ALE	---	D4N-4BLE
	2-conduit	G1/2	---	---	---	---	---	D4N-6ALE	---	D4N-6BLE
		M20	---	---	---	---	---	D4N-8ALE	---	D4N-8BLE
Cat whisker 	1-conduit	G1/2	---	D4N-2180	---	D4N-2280	---	---	---	D4N-2B80
		1/2-14NPT	---	D4N-3180	---	D4N-3280	---	---	---	D4N-3B80
		M20	---	D4N-4180	---	D4N-4280	---	---	---	D4N-4B80
	2-conduit	G1/2	---	D4N-6180	---	D4N-6280	---	---	---	D4N-6B80
		M20	---	D4N-8180	---	D4N-8280	---	---	---	D4N-8B80
Plastic rod 	1-conduit	G1/2	---	D4N-2187	---	D4N-2287	---	---	---	D4N-2B87
		1/2-14NPT	---	D4N-3187	---	D4N-3287	---	---	---	D4N-3B87
		M20	---	D4N-4187	---	D4N-4287	---	---	---	D4N-4B87
	2-conduit	G1/2	---	D4N-6187	---	D4N-6287	---	---	---	D4N-6B87
		M20	---	D4N-8187	---	D4N-8287	---	---	---	D4N-8B87

**Note:** 1. It is recommended that M20 be used for Switches to be exported to Europe and 1/2-14NPT be used for Switches to be exported to North American countries.

2. Mechanically speaking, these models are basic limit switches.

## General-purpose Switches with Three Contacts and MBB Contacts

Actuator	Conduit size		Built-in switch mechanism								
			Direct opening	2NC/1NO (Slow-action)	Direct opening	3NC (Slow-action)	Direct opening	1NC/1NO MBB (Slow-action)	Direct opening	2NC/1NO MBB (Slow-action)	
Fork lever lock (right operation) 	1-conduit	G1/2	---	D4N-2CRE	---	D4N-2DRE	---	D4N-2ERE	---	D4N-2FRE	
		1/2-14NPT		D4N-3CRE		D4N-3DRE		D4N-3ERE		D4N-3FRE	
		M20		D4N-4CRE		D4N-4DRE		D4N-4ERE		D4N-4FRE	
	2-conduit	G1/2	---	D4N-6CRE	---	D4N-6DRE	---	D4N-6ERE	---	D4N-6FRE	
		1/2-14NPT		D4N-8CRE		D4N-8DRE		D4N-8ERE		D4N-8FRE	
		M20									
Fork lever lock (left operation) 	1-conduit	G1/2	---	D4N-2CLE	---	D4N-2DLE	---	D4N-2ELE	---	D4N-2FLE	
		1/2-14NPT		D4N-3CLE		D4N-3DLE		D4N-3ELE		D4N-3FLE	
		M20		D4N-4CLE		D4N-4DLE		D4N-4ELE		D4N-4FLE	
	2-conduit	G1/2	---	D4N-6CLE	---	D4N-6DLE	---	D4N-6ELE	---	D4N-6FLE	
		1/2-14NPT		D4N-8CLE		D4N-8DLE		D4N-8ELE		D4N-8FLE	
		M20									
Cat whisker 	1-conduit	G1/2	---	---	---	D4N-2D80	---	---	---	---	
		1/2-14NPT				D4N-3D80					
		M20				D4N-4D80					
	2-conduit	G1/2	---	---	---	---	D4N-6D80	---	---	---	---
		1/2-14NPT					D4N-8D80				
		M20									
Plastic rod 	1-conduit	G1/2	---	---	---	D4N-2D87	---	---	---	---	
		1/2-14NPT				D4N-3D87					
		M20				D4N-4D87					
	2-conduit	G1/2	---	---	---	---	D4N-6D87	---	---	---	---
		1/2-14NPT					D4N-8D87				
		M20									

- Note:** 1. It is recommended that M20 be used for Switches to be exported to Europe and 1/2-14NPT be used for Switches to be exported to North American countries.  
2. Mechanically speaking, these models are basic limit switches.

## Specifications

### Standards and EC Directives

- Conforms to the following EC Directives:
  - Machinery Directive
  - Low Voltage Directive
  - EN50047
  - EN1088 (slow-action models only)
  - GS-ET-15

### Approved Standards

Agency	Standard	File No.
TÜV Product Service	EN60947-5-1 (approved direct opening)	B03 11 39656 061
UL (See note.)	UL508, CSA C22.2 No.14	E76675

**Note:** Approval for CSA C22.2 No. 14 is authorized by the UL mark.

### CCC (China Compulsory Certification) Mark

Agency	Standard	File No.
CQC	GB14048.5	Under application

### Approved Standard Ratings

#### TÜV (EN60947-5-1)

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

**Note:** Use a 10-A fuse type gI or gG that conforms to IEC269 as a short-circuit protection device. This fuse is not built into the Switch.

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

##### A300

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

##### Q300

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

## ■ Characteristics

<b>Degree of protection (See note 3.)</b>		IP67 (EN60947-5-1)
<b>Durability (See note 4.)</b>	<b>Mechanical</b>	15,000,000 operations min. (See note 7.)
	<b>Electrical</b>	500,000 operations min. for a resistive load of 3 A at 250 VAC (See note 5.) 300,000 operations min. for a resistive load of 10 A at 250 VAC
<b>Operating speed</b>		1 to 500 mm/s (D4N-1120)
<b>Operating frequency</b>		30 operations/minute max.
<b>Contact resistance</b>		25 mΩ max.
<b>Minimum applicable load (See note 6.)</b>		Resistive load of 1 mA at 5 VDC (N-level reference value)
<b>Rated insulation voltage (U<sub>i</sub>)</b>		300 V
<b>Protection against electric shock</b>		Class II (double insulation)
<b>Pollution degree (operating environment)</b>		Level 3 (EN60947-5-1)
<b>Impulse withstand voltage (EN60947-5-1)</b>		Between terminals of the same polarity: 2.5 kV
		Between terminals of different polarities: 4 kV
		Between other terminals and uncharged metallic parts : 6 kV
<b>Insulation resistance</b>		100 MΩ min.
<b>Contact gap</b>		Snap-action: 2 x 0.5 mm min Slow-action: 2 x 2 mm min
<b>Vibration resistance</b>	<b>Malfunction</b>	10 to 55 Hz, 0.75-mm single amplitude
<b>Shock resistance</b>	<b>Destruction</b>	1,000 m/s <sup>2</sup> min.
	<b>Malfunction</b>	300 m/s <sup>2</sup> min.
<b>Conditional short-circuit current</b>		100 A (EN60947-5-1)
<b>Rated open thermal current (I<sub>th</sub>)</b>		10 A (EN60947-5-1)
<b>Ambient temperature</b>		Operating: -30°C to 70°C with no icing
<b>Ambient humidity</b>		Operating: 95% max.
<b>Weight</b>		Approx. 82 g (D4N-1120)
		Approx. 99 g (D4N-5120)

**Note:** 1. The above values are initial values.

2. Once a contact has been used to switch a standard load, it cannot be used for a load of a smaller capacity. Doing so may result in roughening of the contact surface and contact reliability may be lost.
3. The degree of protection is tested using the method specified by the standard (EN60947-5-1). Confirm that sealing properties are sufficient for the operating conditions and environment beforehand. Although the switch box is protected from dust or water penetration, do not use the D4N in places where foreign material such as dust, dirt, oil, water, or chemicals may penetrate through the head. Otherwise, premature wear, Switch damage or malfunctioning may occur.
4. The durability is for an ambient temperature of 5°C to 35°C and an ambient humidity of 40% to 70%. For more details, consult your OMRON representative.
5. If the ambient temperature is greater than 35°C, do not pass the 3-A, 250-VAC load through more than 2 circuits.
6. This value will vary with the switching frequency, environment, and reliability level. Confirm that correct operation is possible with the actual load beforehand.
7. The mechanical durability of fork lever lock models is 10,000,000 operations min.