

Enclosed Switch

D4C-1220

Enclosed Switch, Roller lever, 5 A at 250 VAC/ 4 A at 30 VDC, VCTF oil-resistant cable, 3 m



Image

Shape/Structure	General-purpose Limit switches
Actuator	Roller lever
Electrical ratings	5 A at 250 VAC/ 4 A at 30 VDC
Contact form	SPDT
Cable specifications	VCTF oil-resistant cable, 4 cores, 3 m
Degree of protection	IP67

Ratings / Performance

As of August 8, 2024

Shape/Structure	General-purpose Limit switches
ctuator	Roller lever 17.5 dia. x 7 Sintered stainless steel roller R38
Electrical ratings	5 A at 250 VAC/ 4 A at 30 VDC
Frequency	50/60 Hz
Contact form	SPDT
Load	General load
Ratings (AC): Non-Inductive load	Resistive load: 5 A at 125 VAC/5 A at 250 VAC Lamp load (NC): 1.5 A at 125 VAC/1 A at 250 VAC Lamp load (NO): 7 A at 125 VAC/0.5 A at 250 VAC Inductive load: 3 A at 125 VAC/2 A at 250 VAC Motor load (NC): 2.5 A at 125 VAC/1.5 A at 250 VAC Motor load (NO): 1.3 A at 125 VAC/0.8 A at 250 VAC
Ratings (DC): Non-Inductive load	Resistive load: 5 A at 8 VDC/5 A at 14 VDC/4 A at 30 VDC/0.4 A at 125 VDC/0.2 A at 250 VDC Lamp load: 2 A at 8 VDC/2 A at 14 VDC/2 A at 30 VDC/0.05 A at 125 VDC/0.03 A at 250 VDC Inductive load (NC): 5 A at 8 VDC/4 A at 14 VDC/3 A at 30 VDC/0.4 A at 125 VDC/0.2 A at 250 VDC Inductive load (NO): 4 A at 8 VDC/4 A at 14 VDC/3 A at 30 VDC/0.4 A at 125 VDC/0.2 A at 250 VDC Motor load: 3 A at 8 VDC/3 A at 14 VDC/3 A at 30 VDC/0.05 A at 125 VDC/0.03 A at 250 VDC
Inrush current	NC: 20 A max. NO: 10 A max.
Earth terminal	With earth wire
Cable specifications	VCTF oil-resistant cable, 4 cores, 3 m Nominal sectional area: 0.75 mm ²

	Diameter: 7.6 dia.
Ambient temperature	Operating: -10 to 70 °C (with no icing)
Ambient humidity	35 to 95 %

Permissible operating frequency	Electrical: 30 operations / 1 minute max. Mechanical: 120 operations / 1 minute max.
Contact resistance (Initial value)	300 mΩ max.
Insulation resistance	100 MΩ min. (at 500 VDC)
Dielectric strength	Between each terminal of the same polarities: 1,000 VAC 50/60 Hz 1 min Between live-metallic part and ground: 1,500 VAC 50/60 Hz 1 min Between each terminal and non-live-metallic part: 1,500 VAC 50/60 Hz 1 min
Impulse withstand voltage	Between live-metallic part and ground: 2.5 kV Between each terminal and non-live-metallic part: 2.5 kV
Durability	Electrical: 200,000 operations min. (5 A at 125 VAC) Mechanical: 10 million operations min.
Vibration resistance	Malfunction: 10 to 55 Hz, 1.5 mm double amplitude
Shock resistance	Destruction: 1,000 m/s ² max. Malfunction: 500 m/s ² max.
Degree of protection	IP67
Classification of protection against electric shock	Class I (with earth wire)

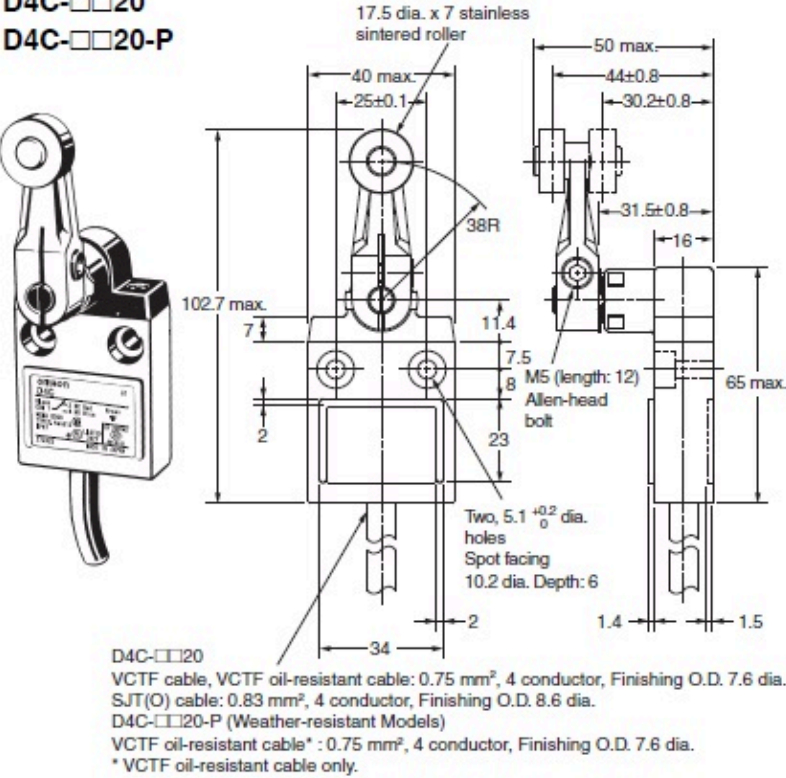
Operating Force (OF)	Standard value 5.69 N max.
Release Force (RF)	Standard value 1.47 N min.
Pre-Travel (PT)	Standard value 25 ° max.
Movement Differential (MD)	Standard value 3 ° max.
Over-Travel (OT)	Standard value 40 ° min.

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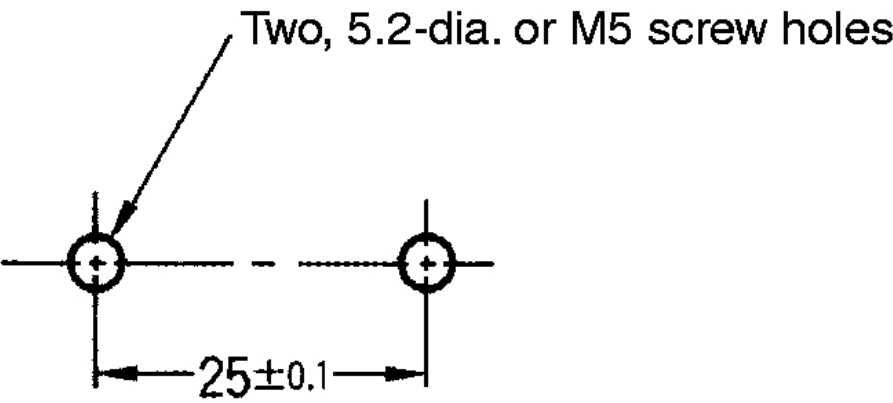
Dimensions

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Roller Lever
D4C-□□20
D4C-□□20-P



Mounting hole dimensions



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Circuits configuration

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27/12/24, 2:01 p.m.D4C-1220 | OMRON Industrial Automation

Without Operation Indicator

(black)COM

NC (red)

NO *1

*2

E

*1. NO (white): VCTF oil-resistant cable or VCTF cable.
NO (blue): SJT (O) cable approved by UL and CSA.

*2. E (yellow/green): VCTF oil-resistant cable.
E (green): VCTF cable or SJT (O) cable approved by UL and CSA.

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Characteristic chart

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Durability curve

Electrical:

The graph plots Durability (x 10³ operations) on a logarithmic y-axis (10 to 5,000) against Switching current (mA) on a linear x-axis (0 to 7). Two curves are shown for 125 VAC and 250 VAC. The 125 VAC curve starts at approximately 3,500 operations at 0.5 mA and drops to about 100 operations at 4 mA. The 250 VAC curve starts at approximately 3,000 operations at 0.5 mA and drops to about 100 operations at 6 mA. Operating frequency is 30 operations/min (cosφ = 1, L/R = 0).

Switching current (mA)	Durability (x 10 ³ operations) - 125 VAC	Durability (x 10 ³ operations) - 250 VAC
0.5	3,500	3,000
1.0	1,000	800
2.0	300	250
3.0	150	150
4.0	100	100
5.0	-	80
6.0	-	100

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