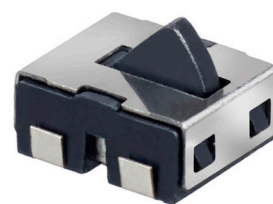


DE series

Detector Switches



DISTINCTIVE FEATURES

Ultra low profile
Two-way operation
Sharp detection feeling
Water resistant



ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load: DC 5V 1mA
- Contact resistance: 500 mΩ max.
- Electrical life at full load: 300,000 cycles min.



GENERAL SPECIFICATIONS

- Rating: 50μA 5V DC / 0,1A 12V DC
- Type of actuation: Auto-return
- Operating force: $1 \pm 0,5$ N



ENVIRONMENTAL SPECIFICATIONS

- Operating temperature range: -40°C to +85°C
- Storage temperature range: -40°C to +85°C
- Humidity: 25 to 85%



MATERIALS

- Cover: high temperature thermoplastic
- Silicone rubber: silicone
- Contacts: copper, plated
- Stem: high temperature thermoplastic
- Spring: stainless steel
- Base: high temperature thermoplastic
- Terminal: copper alloy

APEM products may be recycled at end-of-life for the re-claiming of valuable metal components.

The company reserves the right to change specifications without notice.



DE series

Detector switches



SOLDERING

- Soldering temperature : 350°C max.
- Continuous soldering time : 5 sec. max.
- Electric Iron Power : 50W Below

Reflow : Max 260°C

Above 255°C, max 5-10 sec.



PACKAGING

PART REFERENCE	PACKAGING QUANTITY		
	BAG	TUBE	TAPE AND REEL
DE-20VSNOP-T/R	-	72 pcs	500 pcs
DE-50HSNOP-T/R	-	-	3,800 pcs
DE-40VTNO	250 pcs	-	-
DE-10VSNOP-T/R	-	-	2,600 pcs
DE-30HSNO-T/R	-	-	3,000 pcs
DE-60VJNO-T/R	-	-	2,300 pcs
DE-70HSNCP-T/R	-	-	3,000 pcs

Detector switches

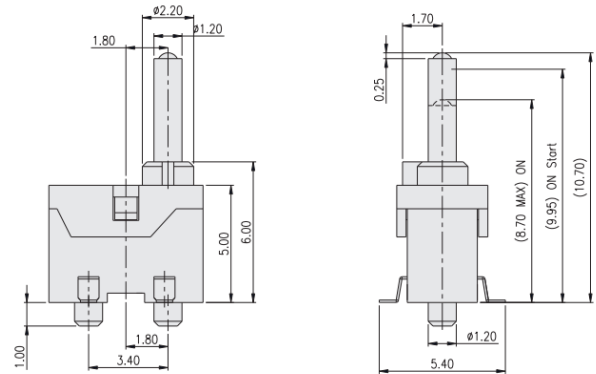
DE-20VSNOP-T/R



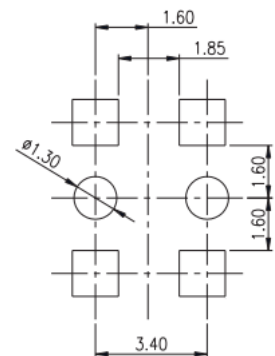
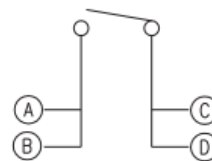
3.9 mm x 6.5 mm, h = 8.4 mm

Operation force: 35 gf max.
Contact Rating : 5 mA 5V DC
Operating Life : 50,000 cycles
Travel : 2 mm

PCB DIMENSIONS



CIRCUIT DIAGRAM



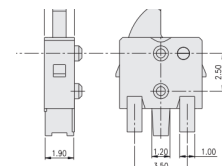
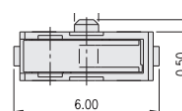
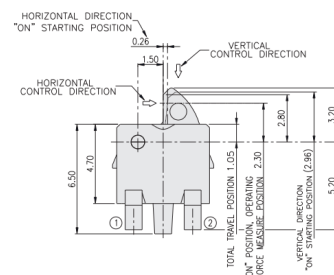
DE-30HSNO-T/R



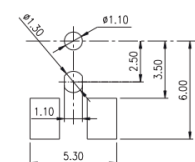
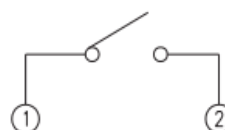
6.5 mm x 6.0 mm, h = 2 mm

Operation force: 50 gf max.
Contact Rating : 50 mA 20V DC
Operating Life : 100,000 cycles

PCB DIMENSIONS



CIRCUIT DIAGRAM



DE series

Detector switches

DE-50HSNOP-T/R

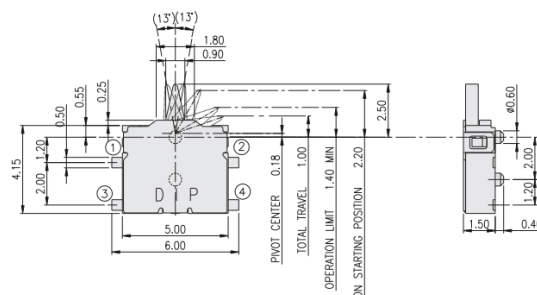


Two-way operation

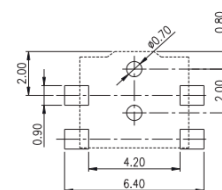
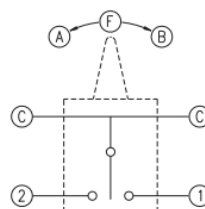
4.15 mm x 6 mm, h = 1.9 mm

Operation force: 30 gf max.
Contact Rating : 10 mA 5V DC
Operating Life : 100,000 cycles

PCB DIMENSIONS



CIRCUIT DIAGRAM



DE-40VTNO



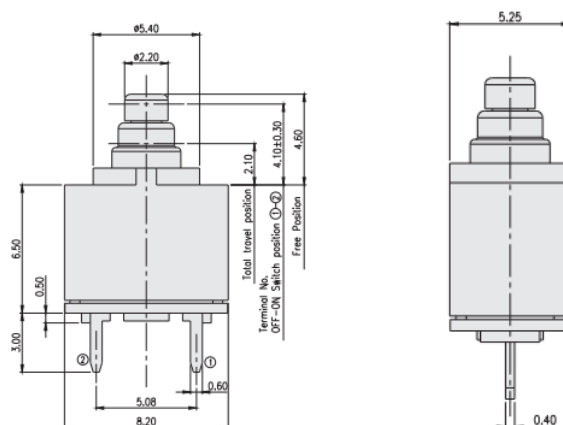
8.3 mm x 5.3 mm, h = 7 mm

Operation force: 102 ± 50 gf.
Contact Rating : 10 mA 5V DC
Operating Life : 300,000 cycles

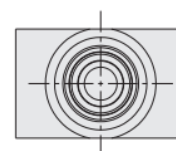
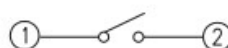
IP67

Travel : 4.1 mm ± 0.3

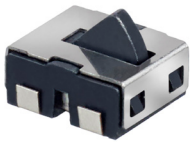
PCB DIMENSIONS



CIRCUIT DIAGRAM



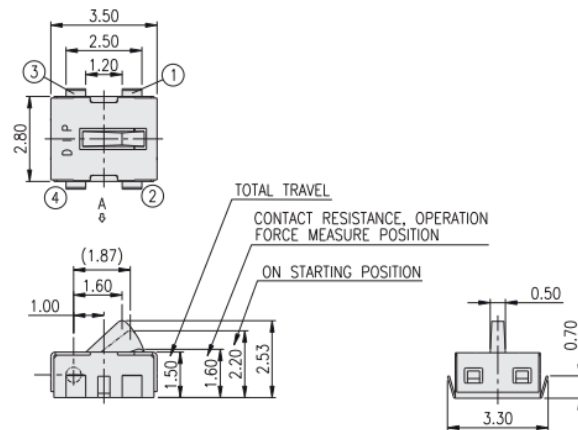
DE-10VSNOP-T/R



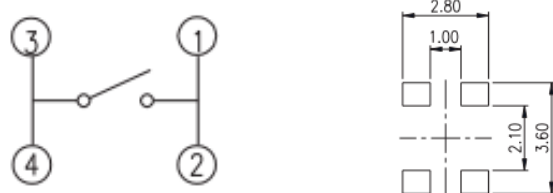
2.8 mm x 3.5 mm, h = 2.53 mm

Operation force: 50 gf max.
Contact Rating : 1 mA 5V DC
Operating Life : 100,000 cycles

PCB DIMENSIONS



CIRCUIT DIAGRAM



DE-70HSNCP-T/R

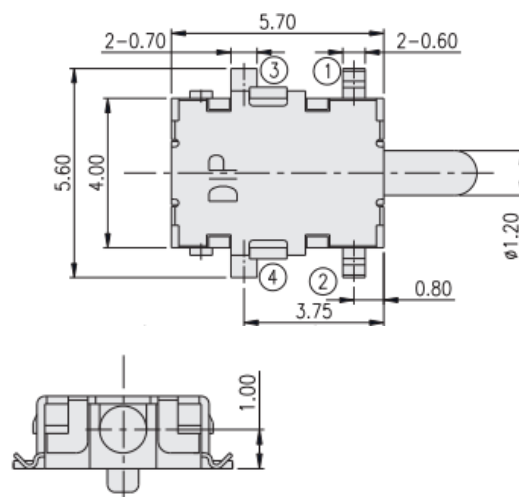


5.6 mm x 5.7 mm, h = 2 mm

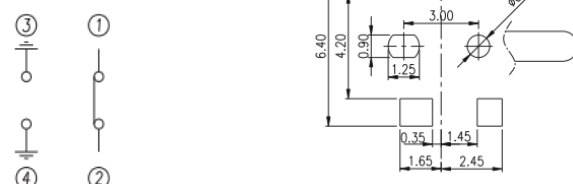
Operation force: 150 st. max.
Contact Rating : 10 mA 5V DC
Operating Life : 100,000 cycles
Travel : 2 mm

Contact : NC

PCB DIMENSIONS



CIRCUIT DIAGRAM



DE series

Detector switches

DE-60VJNO-T/R

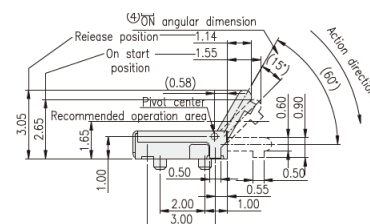
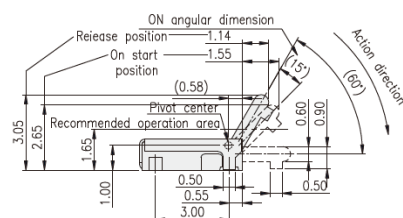


3,6 mm x 4,2 mm, h = 1,2 mm

Operation force: 40 gf max.

Contact Rating : 50 μ A 3V DC to 10 mA 5V

PCB DIMENSIONS



CIRCUIT DIAGRAM

