

PBAK series

Reinforced piezo switches Ø 19 mm



DISTINCTIVE FEATURES

- Bushing diameter 19 (.748), impact-proof up to IK06
- Sealed to IP68 and IP69K (switches mounted on panel)
- Easy to clean metal surface
- Very long life expectancy
- RGB ring illumination



ENVIRONMENTAL SPECIFICATIONS

- Sealing : IP68 per IEC 60529, IP69K per DIN 40050-9 (switches mounted on panel)
- Operating temperature : -40 °C to +75 °C (-40 °F to + 167 °F)
- Extreme thermal shock may briefly trigger the switch
- IK06 according EN62262



ELECTRICAL SPECIFICATIONS

- Electrical function : normally open
- Max rating : 200 mA, 24 VAC
- Switch output : pulse once activated (pulse duration depending on the actuation force and speed)
- Switch resistance ON : 10 Ω max.
- Insulation resistance : 1Gohms min at 500 VDC
- Life expectancy : 50 million cycles, tested up to 1,5 M
- LED consumption : 20 mA max.



GENERAL SPECIFICATIONS

- Operating force : 2 to 8 N
- Torque : 1,5 to 4 Nm max.

The company reserves the right to change specifications without notice.



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MATERIALS

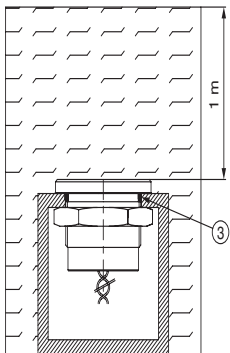
- Case : stainless steel 316L
- Multi-wire leads section 0.22 mm² length 500 mm, twisted by connector, sealed with Epoxy
- Illumination ring : polycarbonate

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



SEALING

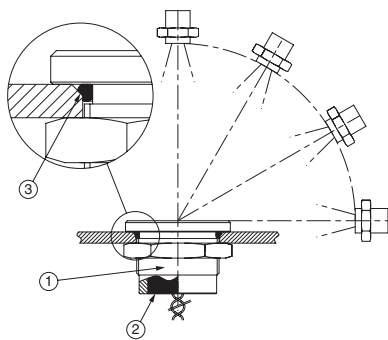
SEALING IP68



**Continuous immersion in water
IP68 test conditions**

Continuous immersion in water
(1 m, 24 hours)

SEALING IP69K



- ① - One-piece bushing
- ② - Epoxy sealed terminals
- ③ - O-ring

**High pressure, high temperature wash down
IP69K test conditions**

- . Pressure : 80 - 120 bars
- . Distance : 15 cm
- . Temperature : 80 °C \pm 5 °C (176 °F \pm 41 °F)
- . Flow : 14 - 16 l/mn
- . Duration : 30 seconds per position

Note : Connect the integrated ground wire (yellow) to the earth. It is recommended to add a TVS diod in parallel.

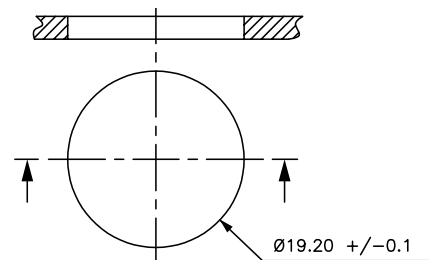


PANEL CUT-OUT

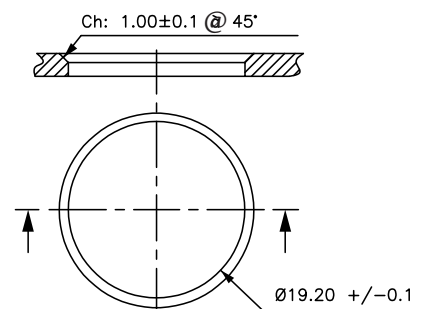
MODELS \varnothing 19 (.748)

- Panel thickness : 1,5 mm to 13 mm

SEALING IP68



SEALING IP69K



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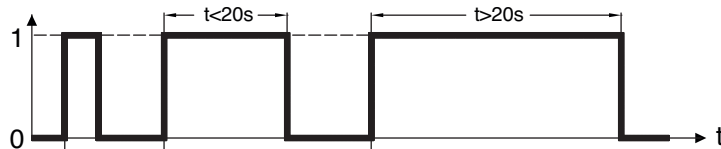
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ELECTRICAL FUNCTIONS

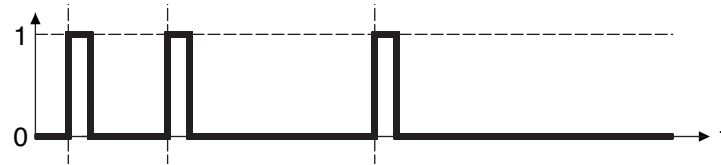
FINGER PRESSURE APPLIED TO SWITCH

1 : pressure / 0 : no pressure



OUTPUT

1 : closed output / 0 : open output

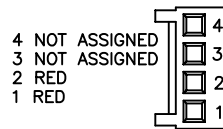
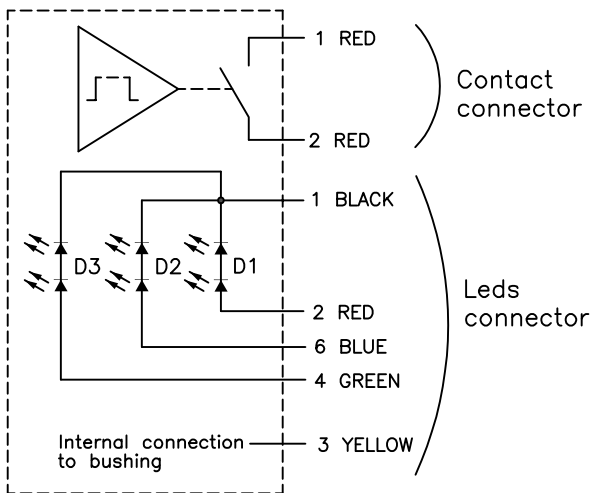


Momentary NO (pulse)

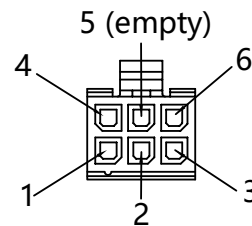
No external power supply required



WIRING DIAGRAMS



MOLEX HOUSING 4 Pts fem.
P/N: 22-01-3047
MOLEX CONTACT
P/N: 08-50-0032



MOLEX HOUSING 6 Pts fem.
P/N: 43025-0600
MOLEX CONTACT
P/N: 43030-0007

No resistor and no protection against reverse voltage are supplied for the LEDs.

LED information : 2 LED in series per color

- green LEDs : Vf typ 6,4 VDC, IF = 20 mA max at 25°C
- red LEDs : Vf typ 6,6 VDC, IF = 20 mA max at 25°C
- blue LEDs : Vf typ 4,4 VDC, IF = 20 mA max at 25°C

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Ø19 (.748) - REINFORCED - SUPERBRIGHT RGB ILLUMINATED



PBAK1AFB500A6A

Wire colors : see "Wiring diagrams".

