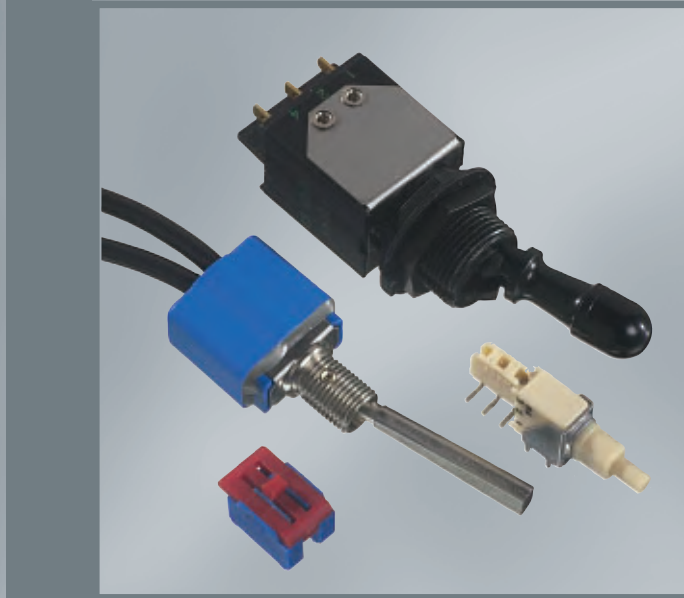


Custom products



Section J

New models!

Available for sale

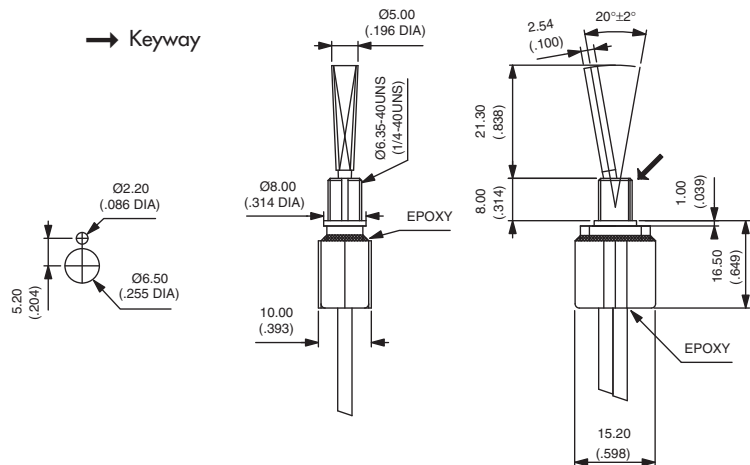
The TOGGLE SWITCHES shown below are examples of catalog products adapted to meet a specific need. They illustrate APEM's capability to develop custom products. They are available for sale and can be purchased under the model number indicated in bold characters.

5000 series class II

- Double insulation
- Wire lead terminals to customer's specifications
- Flatted lever of 21,3 mm (.838) outside bushing



5636A-8 X1231

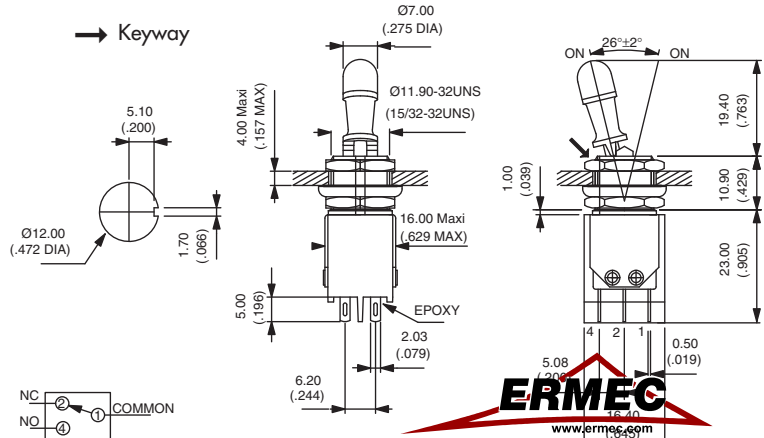


12000 series for high currents

- High current/voltage ratings : 5A inductive at 125VAC or 30VDC
- Double pole, function 6 (ON-ON)
- Only available with locking lever : 1V (1 locked position) or 2V (2 locked positions)
- Finish : nickel plated (standard) or matt black (option G)
- Electrical life : 10.000 cycles - Mechanical life : 50.000 cycles



12146AGK-2V X1221



www.ermec.com

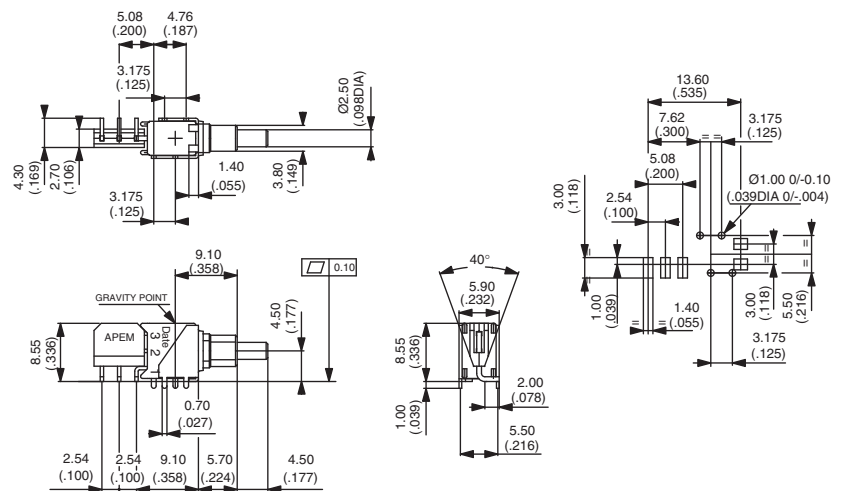
The PUSHBUTTON SWITCHES shown below are examples of catalog products adapted to meet a specific need. They illustrate APEM's capability to develop custom products. They are available for sale and can be purchased under the model number indicated in bold characters.

Vertical right angle SMT TP series

- Excellent stability and mechanical strength
- Saves space on the printed circuit board
- Supplied in tape and reel packaging for pick and place equipment
- Also available for TL series toggle switches



TP32VS83585

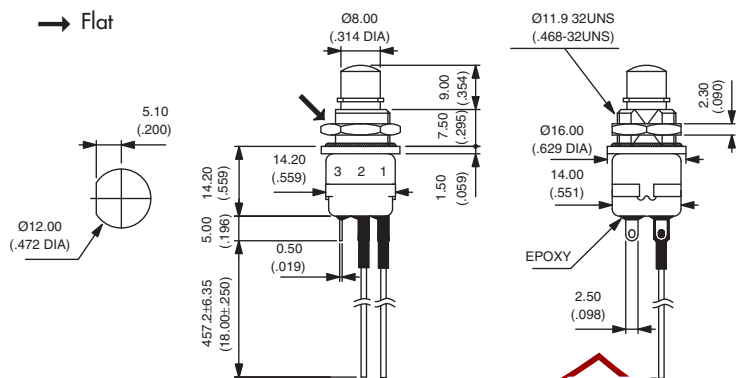


13000 series with mechanical stop and stranded wire leads

- External mechanical stop designed to protect contact mechanism against excessive force
- Stranded wire leads to customer specifications : AWG24, MIL approved
- Terminals/wires protected by heatshrink sleeves
- Matt black finish



13445CDG-29 X1204



www.ermec.com

Available for sale

The PUSHBUTTON SWITCHES shown below are examples of catalog products adapted to meet a specific need. They illustrate APEM's capability to develop custom products. They are available for sale and can be purchased under the model number indicated in bold characters.

Limit switch

New!

A limit switch is an electro-mechanical device consisting of an actuator mechanically linked to a set of contacts. When an object comes into contact with the actuator, the device operates the contacts to make or break an electrical connection.

This custom switch has been developed to detect the extreme position of a clutch pedal, to operate the electrical clutch in a very harsh environment.

- Stainless steel actuator
- Sealing : rear IP67, front IP40
- Operating temperature : -30°C to + 65°C
- Electrical life : 1.000.000 cycles
- Silver contacts
- Current/voltage rating : 2A 12VDC

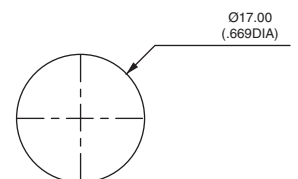
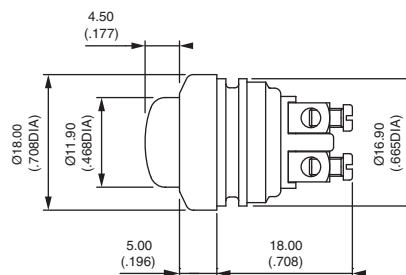


DA058

AV pushbutton with very long life expectancy

New!

- Highly reliable contact mechanism - Silver contacts
- Electrical life : 5 million cycles at 250mA 24VDC
- Mechanical life : 10 million cycles
- No sealing



AV1630A9X2346



www.ermec.com

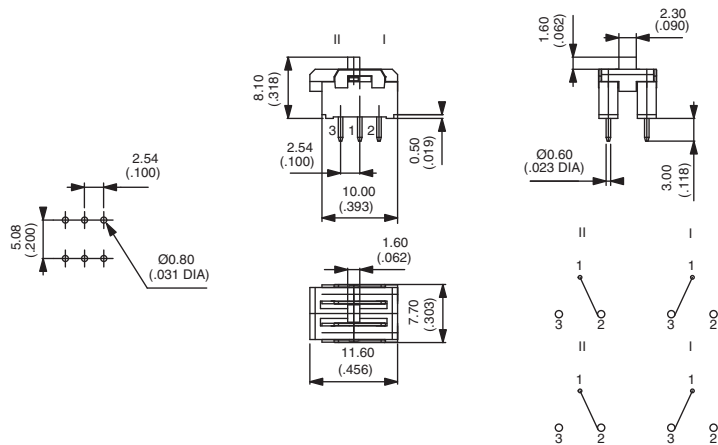
The SWITCHES shown below are examples of catalog products adapted to meet a specific need. They illustrate APEM's capability to develop custom products. They are available for sale and can be purchased under the model number indicated in bold characters.

Double pole NK series

- Two switches with a common actuator
- Terminal spacing : 5,08 mm (.200)
- Travel : 1,60 mm (.062)



NK246 X1211



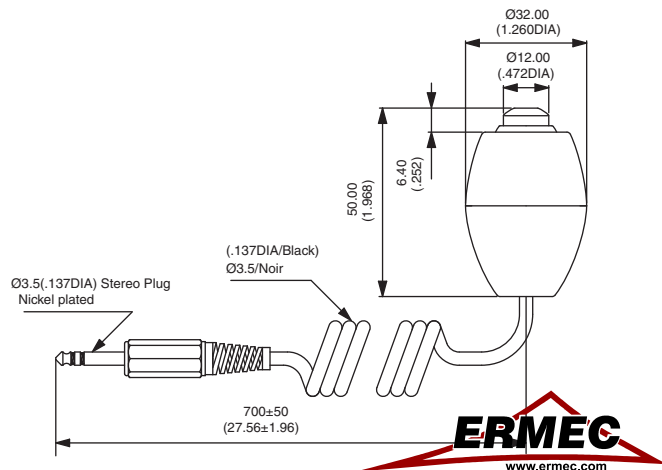
Pendant switch

New!

- Remote hand-held pushbutton
- Sealed to IP67
- Coiled cord with a 3,5 mm jack plug, cord length up to 4 meters
- Applications : nurse call, push-to-talk...



ISR3SAD200107



www.ermec.com

Customer exclusivity - switches

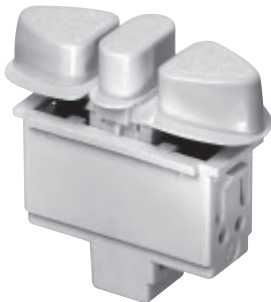
The custom switches shown below have been entirely developed to APEM's customers' specifications. They are the exclusive propriety of the customer who has supported the tooling costs. They illustrate APEM's capability to find solutions to the most specific switch requirements.

Rocker detect switch



This rocker is used as a detect switch to stop a motor. It has been engineered to fit a tight space specified by the customer. The actuator shape has been specially designed for detection of the extreme positions of the linear motor in which the switch is mounted.

"One key - one function" switch



This custom switch includes 3 keys designed to control a window blind motor. The two side keys are available in momentary or maintained functions or a combination momentary/maintained configuration. This product was developed to meet NF-EN6066-1, a requirement of the application.

"Reed" rocker switch



This rocker switch features :

- Very long electrical life : > 2.000.000 cycles
- 2 electrical functions (3 maintained or momentary positions)
- Mounting from rear of panel
- Stranded wire lead terminals



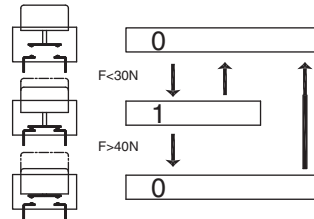
www.ermec.com

Safety enabling switch



- Three position switch for safety “dead man” application, complying with IEC 60947-5-8.
- Redundant contacts with “emergency stops”.
- Patent pending

0 = open contact
1 = closed contact

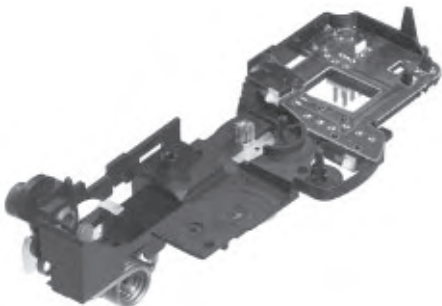


APEM's experienced switch design team, advanced development tools and vertical integration enable the company to develop products beyond conventional switches. The highest level of integration is achieved with modules combining several technologies to offer added value and reduced cost.

- The integration of the different functions begins at the design stage and results in higher product reliability, improved performance, reduced weight and easier assembly.
- This approach reduces costs and development time for the equipment manufacturer.
- Each module is an innovative solution and therefore requires specific tooling for injection, stamping, testing and assembly.
- Tooling costs are amortized on large production runs.

The example below is an integrated module for an automotive application.

Door latch module



- **Customer problem**

Several components (PC boards, connectors, switches, connector pins for motors, motors), thus several suppliers and assembly stages. Lack of reliability due to the numerous electrical connections.

- **APEM solution**

A single integrated module, 100 % tested, ready for mounting.

ERMEC
www.ermec.com

www.ermec.com