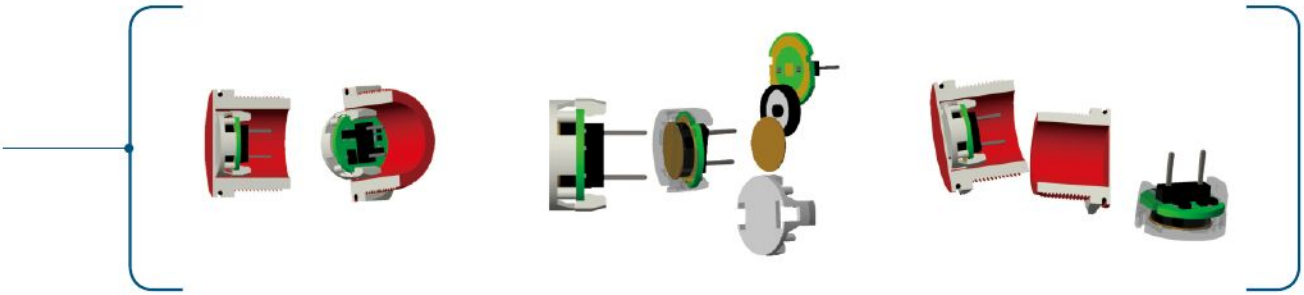
THE GERTA VPM (VERSATILE PIEZO MODULE)

The principle behind the GERTA Piezo technology is the assembly of all the necessary components into a single unit (the Module) which eliminates the need to handle multiple components for every single Push Point Manufactured.



The VPM is a solid state (no moving parts), stand alone module which may be easily arranged in any configuration by simply clicking it in to the housing. The VPM also features a few significant advantages:

NO SOLDERING NO ADHESIVE

Unlike other common Piezo electric technologies, the VPM is a mechanically assembled structure. It features a very stable structure unaffected by extreme temperature fluctuations and not prone to deterioration of components.

No adhesive is used in the assembly process and there is no need for soldering wires directly to the sensitive Piezo ceramic.

Dependency on employee skills and workmanship is greatly reduced and the module, placed behind a 0.6mm thick metal membrane, is extremely durable and reliable.

APPLICATIONS



Shower



Bath



Car wash



Marine



Medical

DISTINCTIVE FEATURES

Bushing diameter :
16 (.630), 19 (.748), 22 (.866) or 30 mm (1.181)

Sealed to IP68 and IP69K (switches mounted on panel)

Easy to clean metal surface

Very long life expectancy

Illumination or Non-illumination

MATERIALS

- Case : aluminum, anodized or stainless steel 316L
- Multi-wire leads section 0.22 mm^2 length 300 mm, twisted by pair
- Cable, length 300 mm, section depending on switch model
- PC terminals : bronze, tin plated

Note : to maintain the ESD performance, always add a ground washer when the panel is made of non-conductive material (PVC, polycarbonate).

COLOR



Blue



Green



Yellow



White



Red

GENERAL SPECIFICATIONS

- Operating force : 2 to 6 N
- Torque : 2.5 Nm min. - 3 Nm max.

ENVIRONMENTAL SPECIFICATIONS

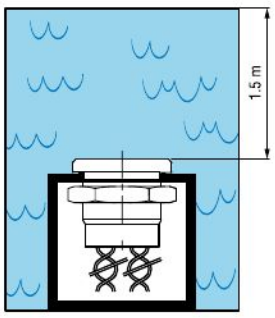
- Sealing : IP68 per IEC 60529, IP69K per DIN 40050-9 (switches mounted on panel)
- Vibration resistance : 10-500 Hz / 10 g per IEC 60068-2-6
- Operating temperature : -40 °C to +75 °C (-40 °F to + 167 °F)
- EMC compatibility according to EN 61058-1 for the whole range
- EMC compatibility according to EN 61000-4 & EN61000-6-2 for 1A

ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - Function NO : standard 200 mA 24 VAC/DC, 1 A 24 VAC/DC or request
  - Function NC : standard max. 600 mA 24 VAC/DC
- Switch resistance ON : 10Ω max.
- Switch resistance OFF : 5 MΩ min.
- Life expectancy : 50 million cycles
- LED consumption : Illuminated dot 10 mA - Illuminated ring 20 mA

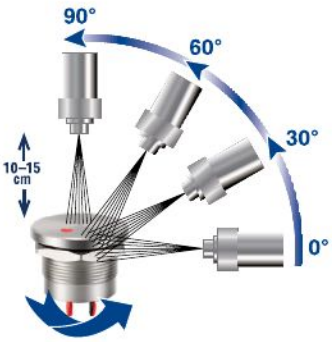
SEALING

SEALING IP68



Continuous immersion in water
IP68 test conditions
Continuous immersion in water
(1.5 m, 24 hours)

SEALING IP69K



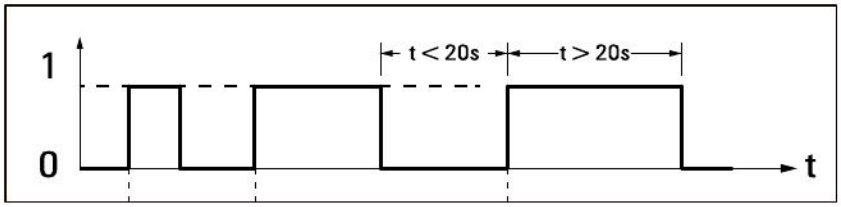
High pressure, high temperature wash down
IP69K test conditions
. Pressure : 80 - 120 bars
. Distance : 15 cm
. Temperature : 80 °C ± 5 °C (176 °F ± 41 °F)
. Flow : 14 - 16 l/mn
. Duration : 30 seconds per position

ELECTRICAL FUNCTIONS

FINGER PRESSURE
applied to switch

1 = pressure

0 = no pressure

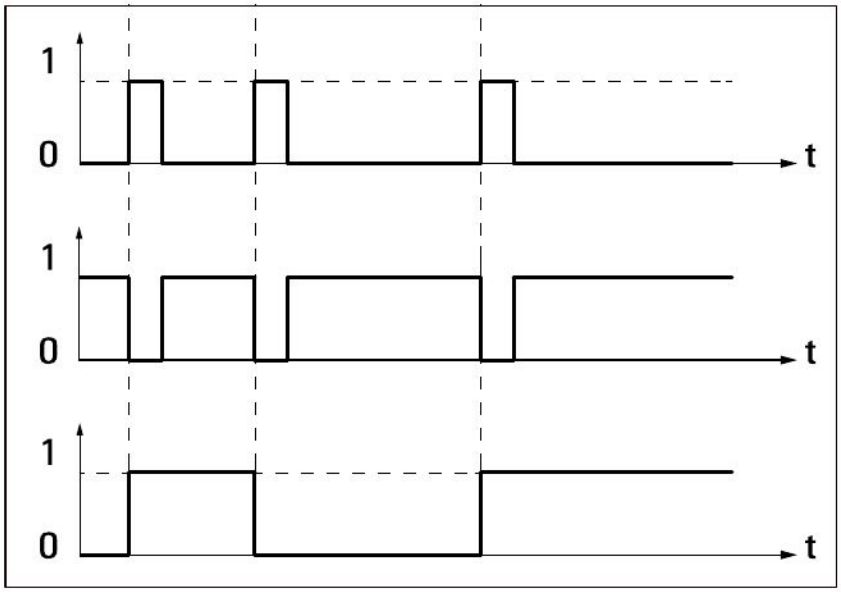


OUTPUT

Momentary NO (pulse)
No external power supply required

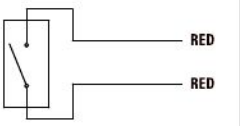
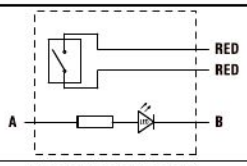
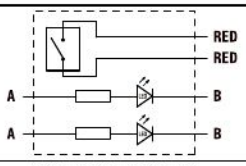
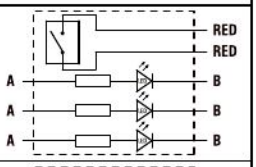
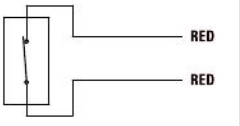
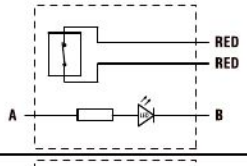
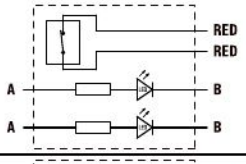
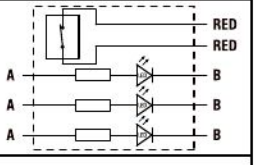
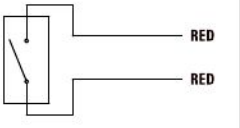
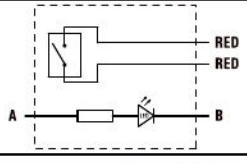
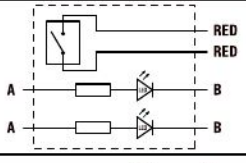
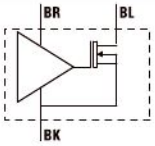
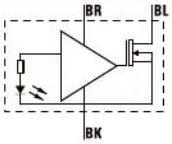
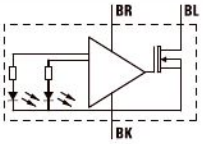
Momentary NC (pulse)
No external power supply required

Latching (ON - OFF)
Requires external power supply



1 = closed output 0 = open output

WIRING DIAGRAMS

Function	Non-illuminated	1 LED *	2 LEDs	3 LEDs
Momentary NO				
Momentary NC				
Momentary NO prolongated pulse				
Latching (ON - OFF)				BR brown +V BK black GND BL blue output

Legend: B = black, A = same colour as LED

* LED colour is indicated by the bottom of the product.

Piezo switch Ø 12 (.480)

PZ- [ ] [ ] [ ] [ ] [ ] [ ]

Switch size
12 = 12mm

Colours / Materials
- A0 Natural anodized aluminum
- A1 Blue anodized aluminum
- A2 Black anodized aluminum
- A3 Green anodized aluminum
- A5 Gold anodized aluminum
- A6 Red anodized aluminum
- B Stainless steel 316L

Operator
- R5 Operator with finger location, height 1.30
- Blank Flat operator, height 1.30

The operator can be customized

Ratings
- 1 200mA 24VAC/DC
- 2 1A 24VAC/DC

Switch status
- NO Normally open

Switch function
- M Momentary

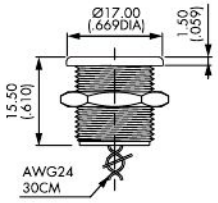
Non-illuminated

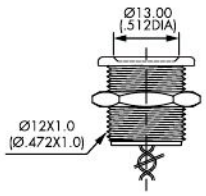


PZ1201NOM

Flat

Finger location





R5

NOTICE : please note that not all combinations of above numbers are available.
Refer to the following pages for further information.

Mounting accessories standard hardware supplied :1 hex nut and 1 O-ring

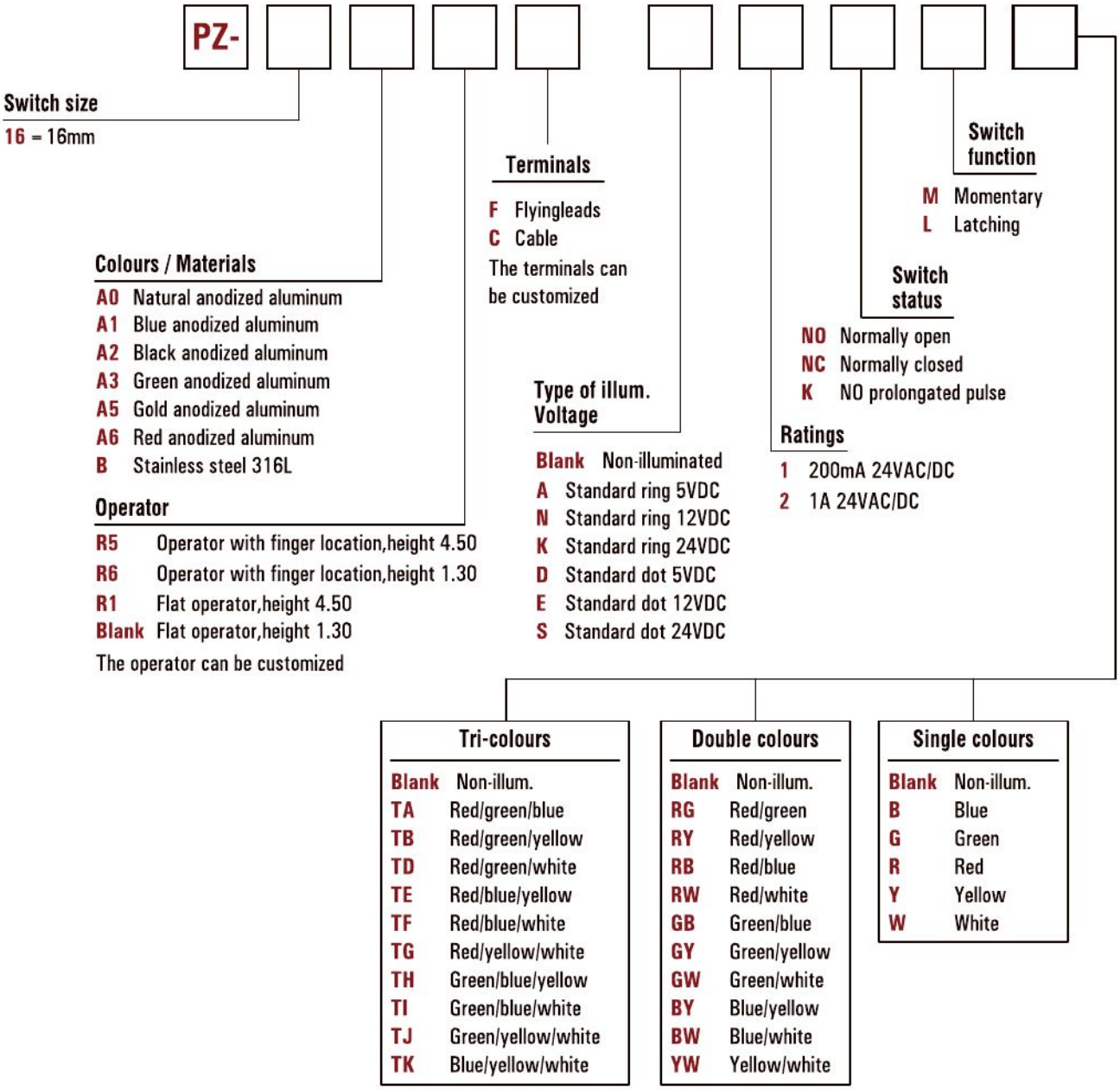
Packaging unit: 20 pieces

***For options not listed above, please contact* GERTA .**

The appearance of the products listed on this file, color, parameters are for reference only, issued a kind of **GERTA** Company shall prevail.

GERTA Company reserves the right to modify or cancel the relevant parameters of this file does not advance notice.
If in doubt, please contact customer service hotline.

Piezo switch Ø 16 (.630)



NOTICE : please note that not all combinations of above numbers are available.
Refer to the following pages for further information.

Mounting accessories standard hardware supplied :1 hex nut and 1 O-ring

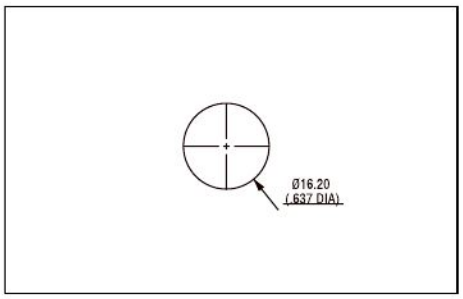
Packaging unit: 20 pieces

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Piezo switch Ø 16 (.630)



Shown with flying lead terminals.

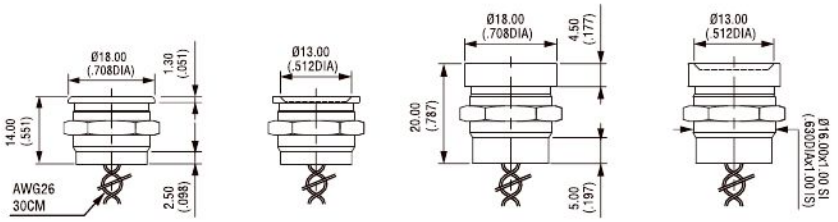
Non-illuminated



PZ16A6R11NOM

Flat

Finger location



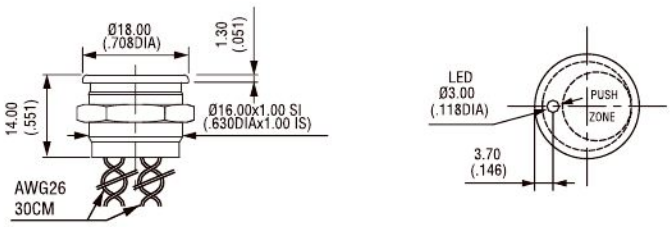
R6 **R1** **R5**

Dot-illuminated



PZ16BFS1NOMG

Flat

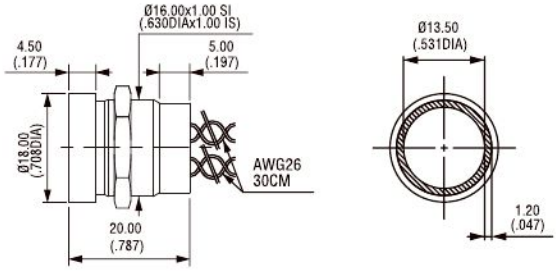


Ring illuminated

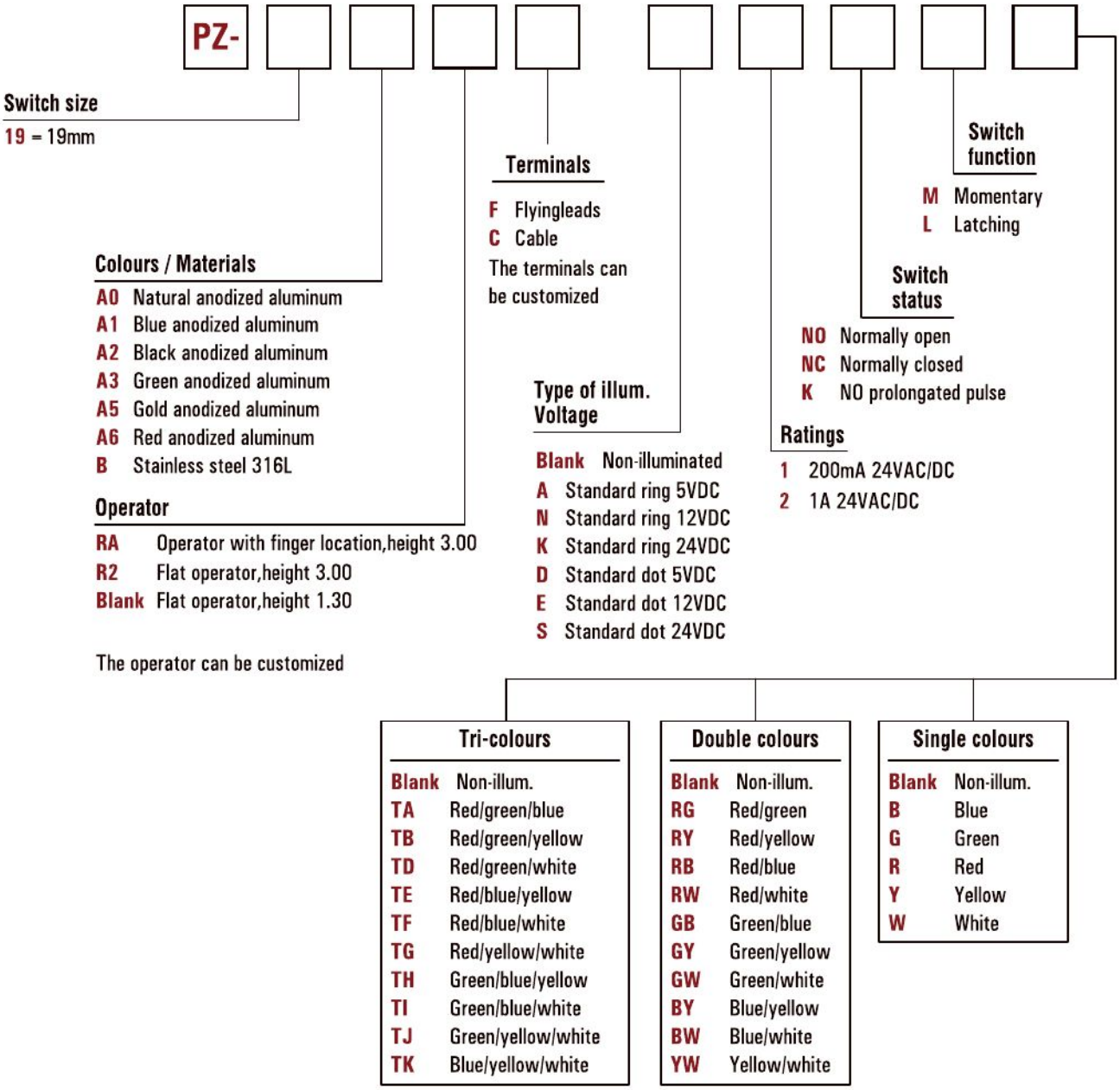


PZ16BR1FN1NOMR

Flat operator, height 4,50 (.177)



Piezo switch Ø 19 (.748)



NOTICE : please note that not all combinations of above numbers are available.
Refer to the following pages for further information.

Mounting accessories standard hardware supplied :1 hex nut and 1 O-ring

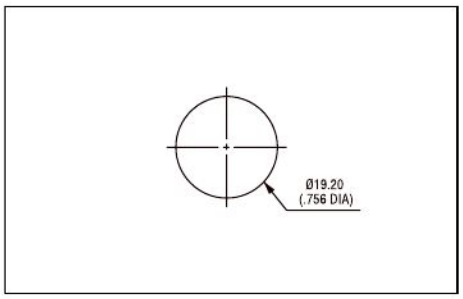
Packaging unit: 20 pieces

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Piezo switch Ø 19 (.748)



Shown with flying lead terminals.

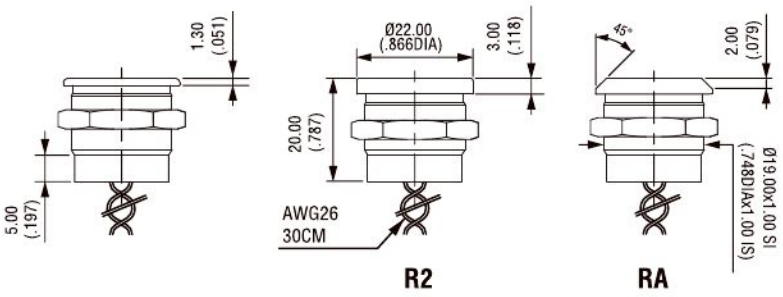
Non-illuminated



PZ19A3F1NOM

Flat

Chamfer

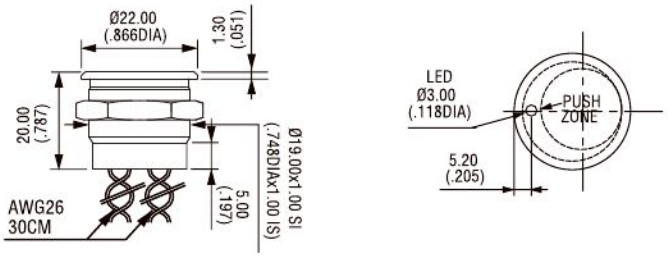


Dot-illuminated



PZ19BFE1NOMR

Flat



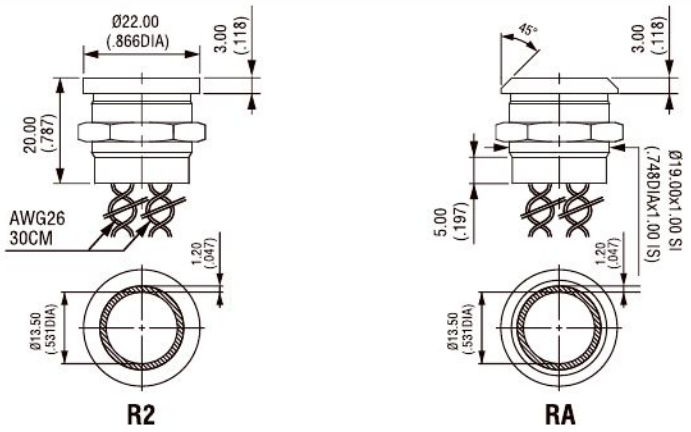
Ring illuminated



PZ19BRAFK1NOMR

Flat

Chamfer



Piezo switch
Ø 22(.866), Ø 25(.984) and Ø 30(1.181)

PZ- [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Switch size
- 22 = 22mm
- 25 = 25mm
- 30 = 30mm

Colours / Materials
- A0 Natural anodized aluminum
- A1 Blue anodized aluminum
- A2 Black anodized aluminum
- A3 Green anodized aluminum
- A5 Gold anodized aluminum
- A6 Red anodized aluminum
- B Stainless steel 316L

Operator
- R2 Flat, operator height 3.0mm (.118) Not available with illuminated ring.
- R6 With finger location, operator height 3.0mm (.118). Not available with illuminated ring.
- RY With chamfer, operator height 4.5 mm (.177). Available with thin or large illuminated ring only.
- RZ Flat, operator height 4.5 mm (.177). Available with thin or large illuminated ring only.
- Blank Flat operator,height 1.30

The operator can be customized

Terminals
- F Flyingleads
- C Cable

The terminals can be customized

Type of illum. Voltage
- Blank Non-illuminated
- A 13.5 Large ring 5VDC
- N 13.5 Large ring 12VDC
- K 13.5 Large ring 24VDC
- P 16.5 Thin ring 5VDC
- J 16.5 Thin ring 12VDC
- Y 16.5 Thin ring 24VDC
- D Standard dot 5VDC
- E Standard dot 12VDC
- S Standard dot 24VDC

Ratings
- 1 200mA 24VAC/DC
- 2 1A 24VAC/DC

Switch status
- NO Normally open
- NC Normally closed
- K NO prolongated pulse

Switch function
- M Momentary
- L Latching

Tri-colours

Blank	Non-illum.
TA	Red/green/blue
TB	Red/green/yellow
TD	Red/green/white
TE	Red/blue/yellow
TF	Red/blue/white
TG	Red/yellow/white
TH	Green/blue/yellow
TI	Green/blue/white
TJ	Green/yellow/white
TK	Blue/yellow/white

Double colours

Blank	Non-illum.
RG	Red/green
RY	Red/yellow
RB	Red/blue
RW	Red/white
GB	Green/blue
GY	Green/yellow
GW	Green/white
BY	Blue/yellow
BW	Blue/white
YW	Yellow/white

Single colours

Blank	Non-illum.
B	Blue
G	Green
R	Red
Y	Yellow
W	White

NOTICE : please note that not all combinations of above numbers are available.
Refer to the following pages for further information.

Mounting accessories standard hardware supplied :1 hex nut and 1 O-ring

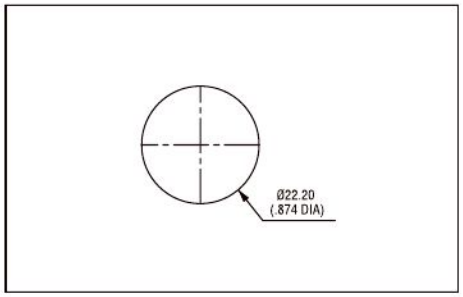
Packaging unit: 20 pieces

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Piezo switch Ø 22(.866)



Shown with flying lead terminals.

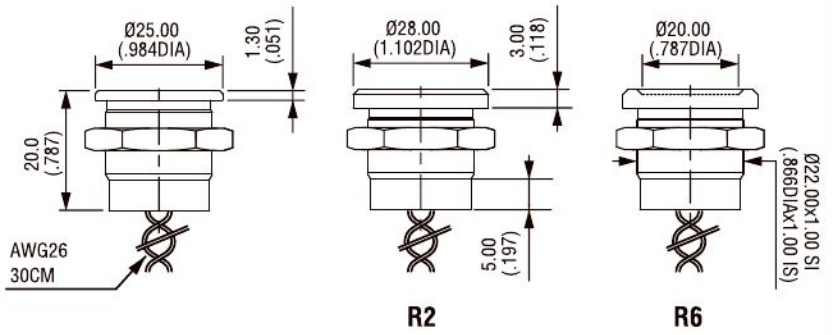
Non-illuminated



PZ22A6R6F1NOM

Flat

Finger location



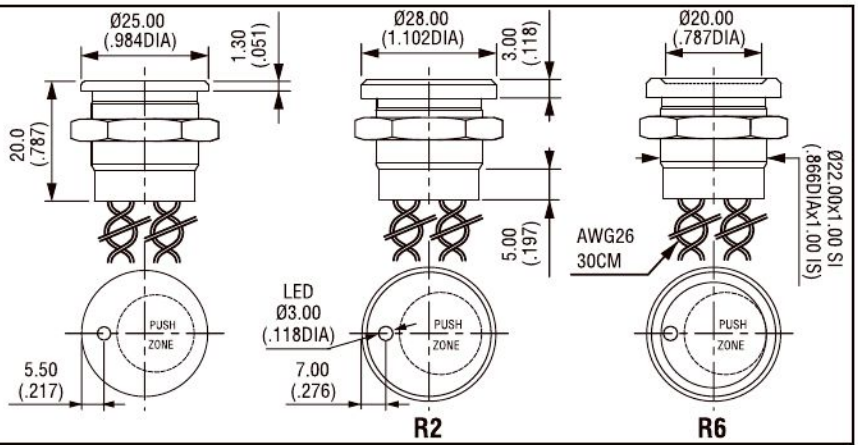
Dot illuminated



PZ22A0R2D1NOMR

Flat

Finger location



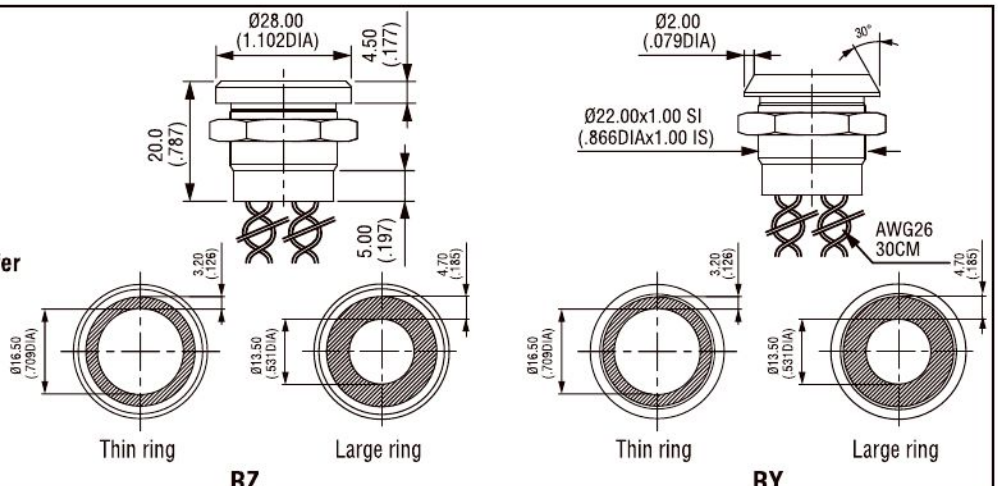
Ring illuminated



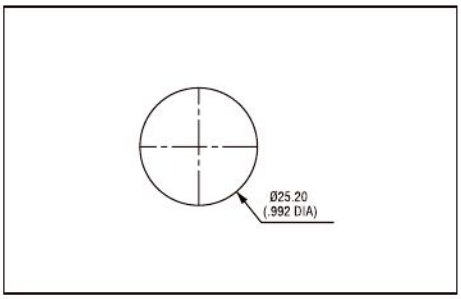
PZ22BRYFJ1NOLW

Flat

Chamfer



Piezo switch Ø 25(.984)



Shown with flying lead terminals.

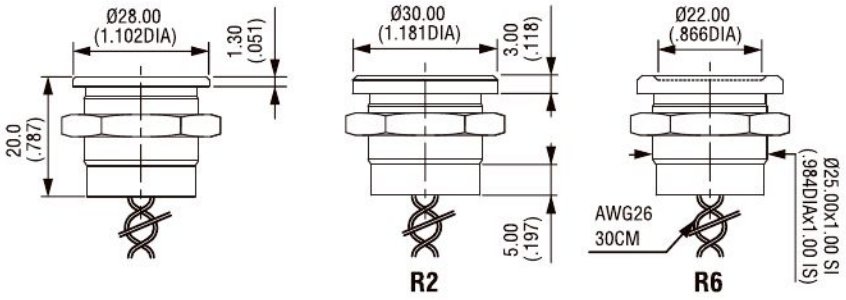
Non-illuminated



PZ25BF1NOM

Flat

Finger location



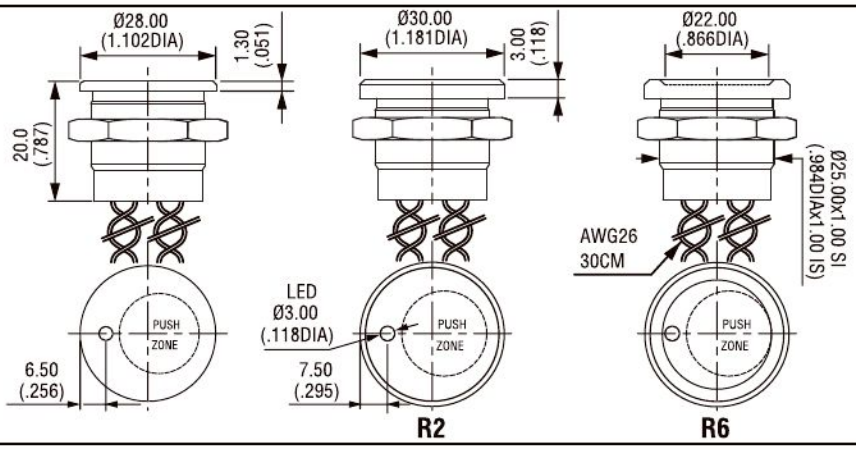
Dot illuminated



PZ25BR2FS1NOLG

Flat

Finger location



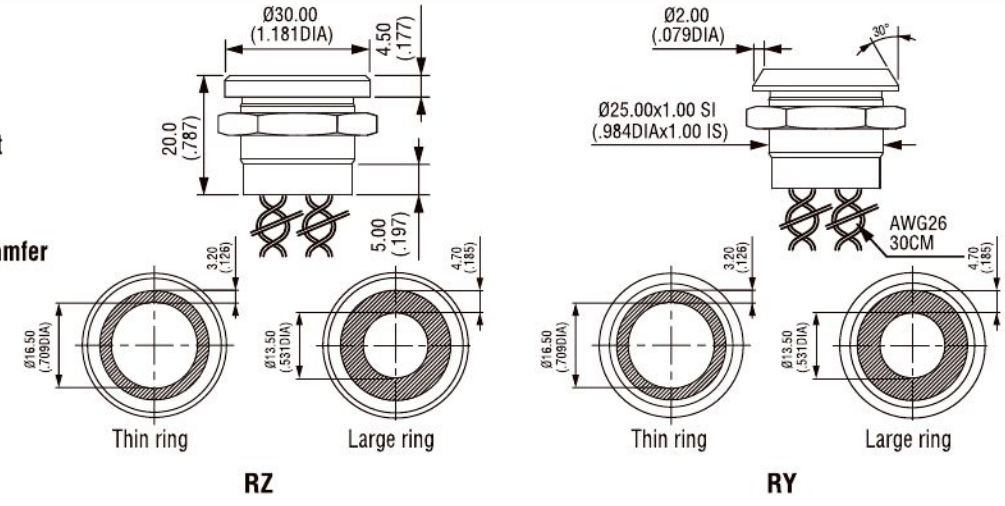
Ring illuminated



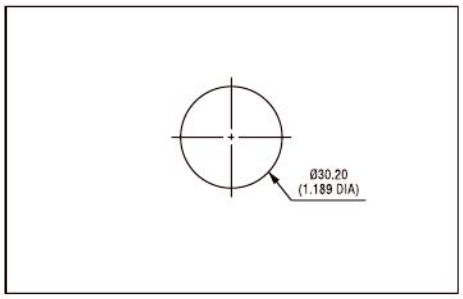
PZ25BRZFN1NOLG

Flat

Chamfer



Piezo switch Ø 30(1.181)



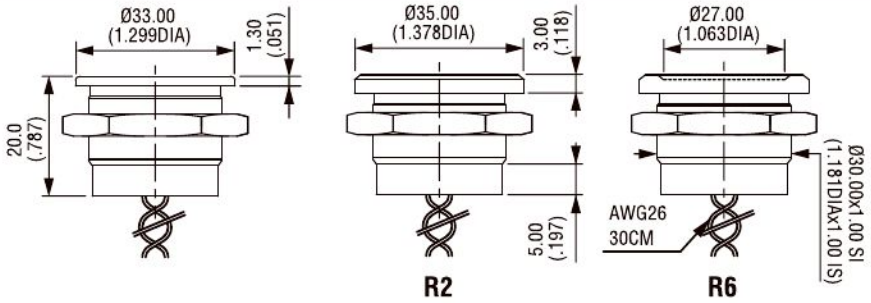
Shown with flying lead terminals.

Non-illuminated



PZ30BR2F1NOM

Flat



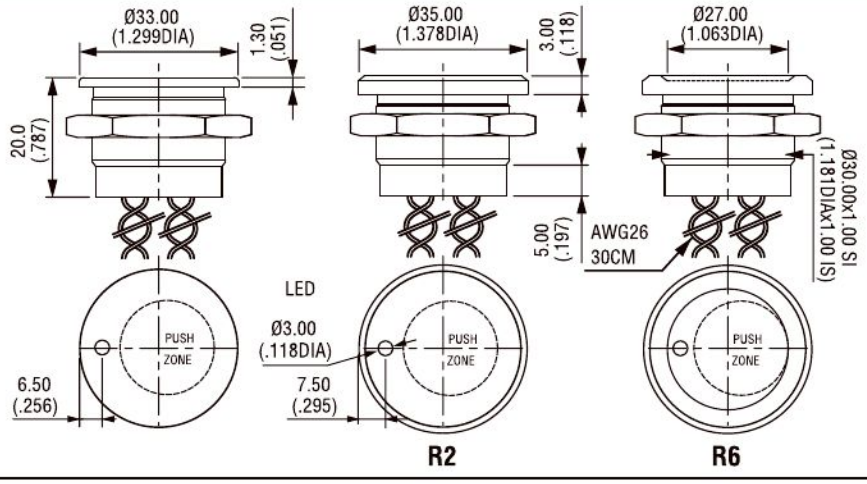
Dot-illuminated



PZ30BFE1NOMG

Flat

Finger location



Ring illuminated



PZ30A2RYFJ1NOMRY

Flat

Chamfer

