PS series
Piezoelectric switch

PS165P10Y◆1

PS165Z10Y◆1

PS161P10Y◆1

PS165P10Y◆1△▲

PS193P10Y◆1

PS193Z10Y◆1

PS193P10Y◆1△▲T

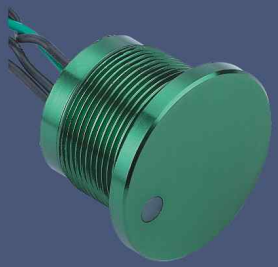
PS193P10Y◆1△▲L

PS223P10Y◆1

PS223Z10Y◆1

PS223P10Y◆1△▲T

PS225P10Y◆1△▲L


PS223P10Y◆1△▲D

PS223Z10Y◆1△▲D

Environmental specifications

- Sealing : IP68
- Vibration resistance : 10–500 Hz / 10 g
- Operating temperature : –40°C to +75°C

Materials

- Case : aluminium, anodized
- 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

Electrical and general specifications

- Max. current/voltage rating : 1A 24VAC/DC or 200mA 24VAC/DC depending on version
- Switch resistance ON : 10 max.
- Switch resistance OFF : 5M min.
- Operating force : 2 to 6N
- Life expectancy : 50 million cycles
- LED consumption : Illuminated dot : 10mA – Illuminated ring : 20mA

Implication of Type

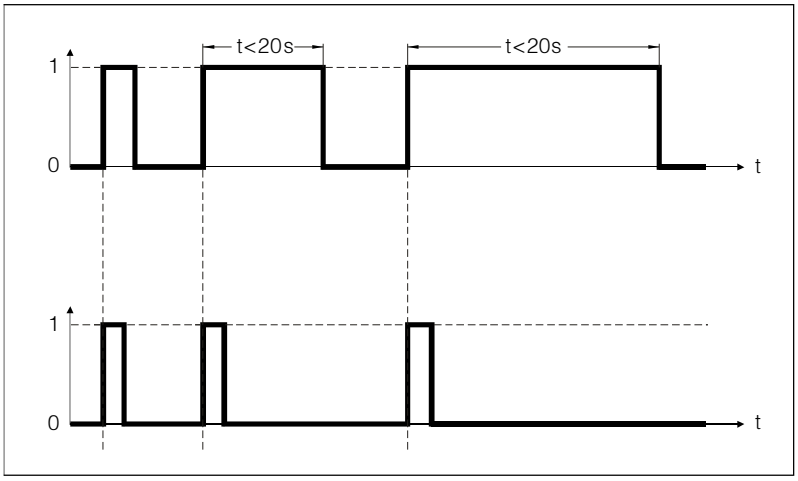
PS	16	★	□	□	◆	□	△	▲
Series	Mounting dimensions	Operator 5P Flat operator, height 4,5 1P Flat operator, height 1 .0 (non illuminated) 5Z With finger location, height 4,5 (non–illuminated)	Electrical function 10 NO (pulse)	Terminals Y Lead(length 30mm) Other Lead length and connection mode can be customized.	Colours / Materials 0 Natural anodized 1 Black anodized 2 Blue anodized 3 Gold anodized 4 Red anodized 5 Green anodized S Stainless steel 316L	Switch ratings 1 200mA 24VAC/DC	LED colour Blank Non–illum. R Red G Green Y Yellow O Orange B Blue W White	Lamp voltage Blank Non–illum. 05 Standard ring – 5VDC 12 Standard ring – 12VDC 24 Standard ring – 24VDC

PS	19	★	□	□	◆	□	△	▲
Series	Mounting dimensions	Operator 3P flat operator, height 3.0 3Z with finger location, height 3.0	Electrical function 10 NO (pulse)	Terminals Y Lead(length 30mm) Other Lead length and connection mode can be customized.	Colours / Materials 0 Natural anodized 1 Black anodized 2 Blue anodized 3 Gold anodized 4 Red anodized 5 Green anodized S Stainless steel 316L	Ratings 1 200mA 24VAC/DC	LED colour Blank Non–illum. R Red G Green Y Yellow O Orange B Blue W White	Lamp voltage Blank Non–illum. 05T thin ring – 5VDC 12T thin ring – 12VDC 24T thin ring – 24VDC 05L large ring – 5VDC 12L large ring – 12VDC 24L large ring – 24VDC

PS	22	★	□	□	◆	□	△	▲
Series	Mounting dimensions	3P Flat operator, height 3.0 (Not available with large illuminated ring.) 3Z With finger location, height 3.0, (Not available with illuminated ring). 5P Flat operator, height 4.5 (Available with large illuminated ring only.)	Electrical function 10 NO (pulse)	Terminals Y Lead(length 30mm) Other Lead length and connection mode can be customized.	Colours / Materials 0 Natural anodized 1 Black anodized 2 Blue anodized 3 Gold anodized 4 Red anodized 5 Green anodized S Stainless steel 316L	Ratings 1 200mA 24VAC/DC	LED colour Blank Non–illum. R Red G Green Y Yellow O Orange B Blue W White	Lamp voltage Blank Non–illum. 05T thin ring – 5VDC 12T thin ring – 12VDC 24T thin ring – 24VDC 05L large ring – 5VDC 12L large ring – 12VDC 24L large ring – 24VDC 05D dot – 5VDC 12D dot – 12VDC 24D dot – 24VDC

Finger pressure applied to switch

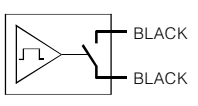
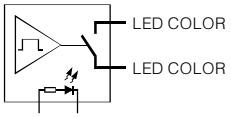
1 = pressure
0 = no pressure



Output

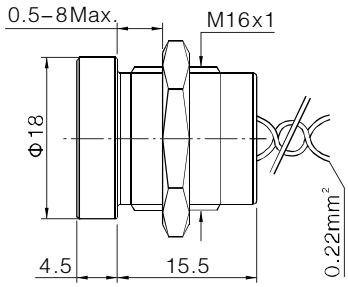
– Momentary NO (pulse)
No external power supply required

Wiring diagrams

	Non–illuminated	1 LED*
Momentary NO		

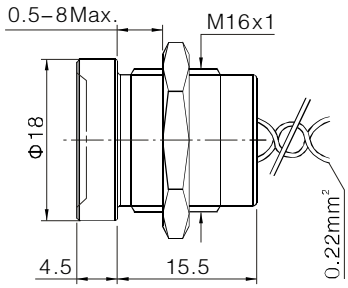
Non–illuminated, operator height 4.50mm, flat

PS165P10Y◆1



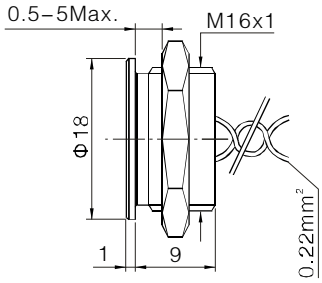
Non–illuminated, operator height 4.50mm, with finger location

PS165Z10Y◆1



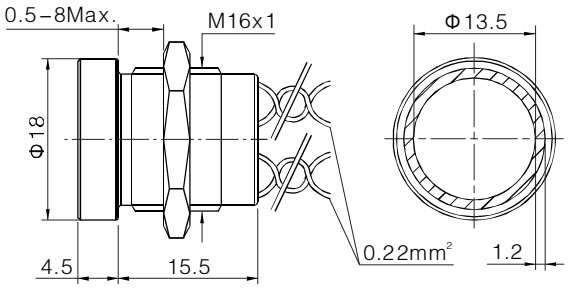
Non–illuminated, operator height 1mm, flat

PS161P10Y◆1



With standard illuminated ring, operator height 4.50mm, flat

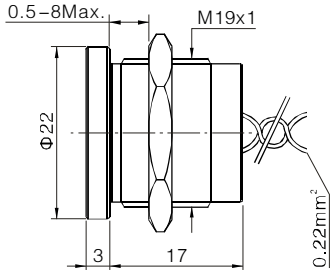
PS165P10Y◆1△▲



◆	△	▲
Colours / Materials	LED colour	Lamp voltage
0 Natural anodized	Blank Non–illum.	Blank Non–illum.
1 Blue anodized	R Red	05 Standard ring – 5VDC
2 Black anodized	G Green	12 Standard ring – 12VDC
3 Gold anodized	Y Yellow	24 Standard ring – 24VDC
4 Red anodized	O Orange	
5 Green anodized	B Blue	
S Stainless steel	W White	

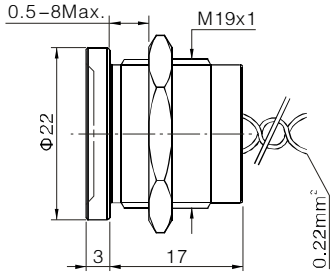
Non–illuminated – operator height 3mm, flat

PS193P10Y◆1



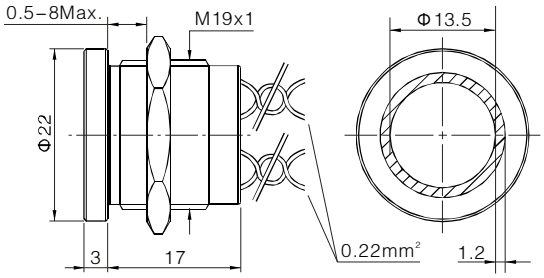
Non–illuminated – operator height 3mm, with finger location

PS193Z10Y◆1



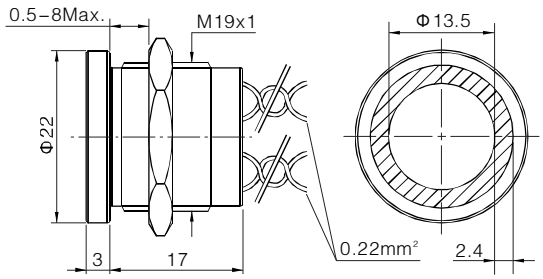
With thin illuminated ring, operator height 3mm, flat

PS193P10Y◆1△▲T



With large illuminated ring, operator height 3 mm, with chamfer

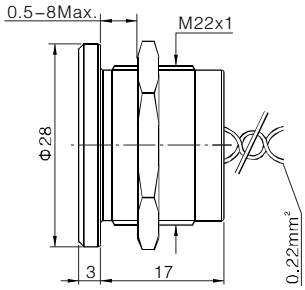
PS193P10Y◆1△▲L



◆	△	▲
Colours / Materials	LED colour	Lamp voltage
0 Natural anodized	Blank Non–illum.	Blank Non–illum.
1 Blue anodized	R Red	05T thin ring – 5VDC
2 Black anodized	G Green	12T thin ring – 12VDC
3 Gold anodized	Y Yellow	24T thin ring – 24VDC
4 Red anodized	O Orange	05L large ring – 5VDC
5 Green anodized	B Blue	12L large ring – 12VDC
S Stainless steel	W White	24L large ring – 24VDC

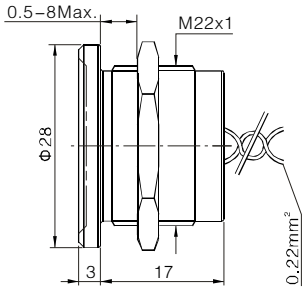
Non–illuminated, operator height 3 mm, flat

PS223P10Y◆1



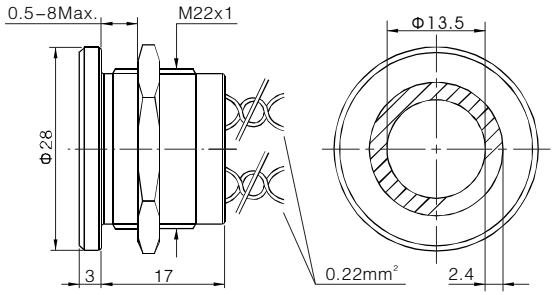
Non–illuminated, operator height 3 mm, with finger location

PS223Z10Y◆1



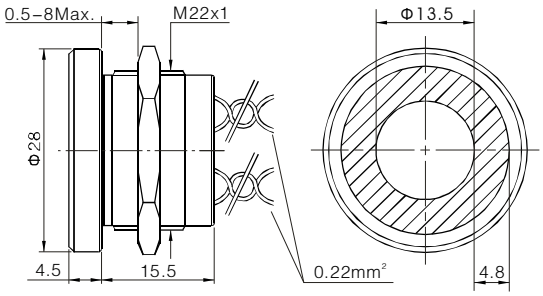
With thin illuminated ring – operator height 3 mm, flat

PS223P10Y◆1△▲T



With large illuminated ring, operator height 4.50mm, flat

PS225P10Y◆1△▲L



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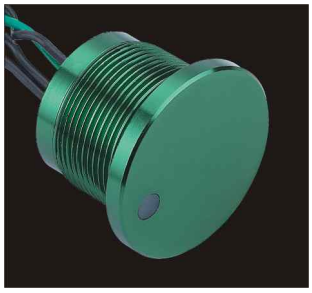
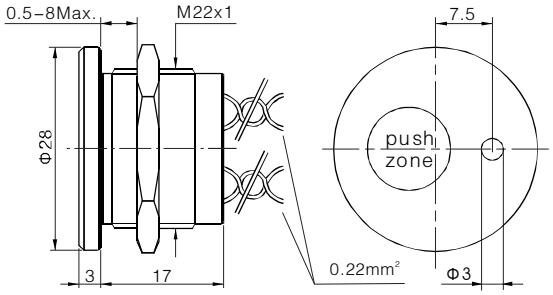
Colours / Materials	LED colour	Lamp voltage	
0 Natural anodized	Blank Non–illum.	Blank Non–illum.	
1 Blue anodized	R Red	05D dot – 5VDC	05L large ring – 5VDC
2 Black anodized	G Green	12D dot – 12VDC	12L large ring – 12VDC
3 Gold anodized	Y Yellow	24D dot – 24VDC	24L large ring – 24VDC
4 Red anodized	O Orange	05T thin ring – 5VDC	
5 Green anodized	B Blue	12T thin ring – 12VDC	
S Stainless steel	W White	24T thin ring – 24VDC	

With illuminated dot, operator height 3 mm,flat

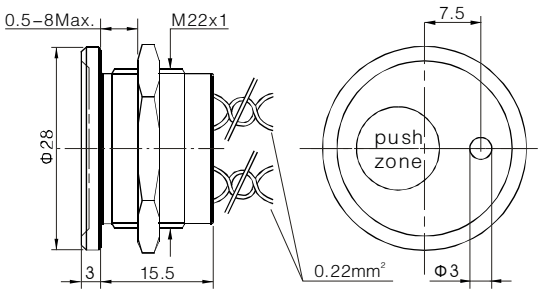


PS223P10Y◆1△▲D



With illuminated dot, operator height 3 mm, with finger location

PS223Z10Y◆1△▲D



◆	△	▲	
Colours / Materials	LED colour	Lamp voltage	
0 Natural anodized	Blank Non–illum.	Blank Non–illum.	
1 Blue anodized	R Red	05D dot – 5VDC	05L large ring – 5VDC
2 Black anodized	G Green	12D dot – 12VDC	12L large ring – 12VDC
3 Gold anodized	Y Yellow	24D dot – 24VDC	24L large ring – 24VDC
4 Red anodized	O Orange	05T thin ring – 5VDC	
5 Green anodized	B Blue	12T thin ring – 12VDC	
S Stainless steel	W White	24T thin ring – 24VDC	

Shower
(IP68 sealing)

Home automation
(design,customization)

Bath
(IP68 sealing, customization)

Car wash
(IP68 sealing, long life)

Matine
(IP68 sealing, design)

Medical
(easy to clean surface, no retention area)

Food processing
(IP68 sealing)

Mining
(IP68 sealing)