



Datasheet

RS PRO Piezo Switches

Stock number: **175-86XX (Details as follows)**

EN



The picture above is for reference only.

Specifications:

RATING : 5-24VADC/1A PULSE MODE.

OPERATING LIFE : 50 MILLION CYCLE MIN.

CONTACT RESISTANCE : 1Ω MAX.

OPERATING TEMPERATURE: -20°C to 65°C.

RS Part no.

| | |
|----------|------------------------|
| 175-8650 | TZ19N-B4-F1FN00-00D101 |
| 175-8646 | TZ19N-B4-F1MN00-00D101 |
| 175-8651 | TZ19N-B4-F1FE00-3CD101 |
| 175-8647 | TZ19N-B4-F1ME00-3CD101 |

Specifications:

1. OBJECTIVE :

This specification defined material, performance, quality and reliability requirements of the Dailywell's Piezo Switches and cable assembly.

2. SCOPE:

This specification provides information and requirements regarding application of the Dailywell's piezo switches and cable assembly.

3. GENERAL:

This document is composed of the following sections.

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4. APPLICABLE DOCUMENTS:

HSF per Dailywell's HSF-001 Rev. C
RoHS 2011/65/EU exemption per 7(c) - I
IP68 per IEC 60529
IP69K per IEC 60529

5. REQUIREMENTS:

5.1 DESIGN AND CONSTRUCTIONS

The switches Sealing IP requirement for panel mount applications.
Apply cable or terminal connect to the input of devices to enable power or signal.
These switches are not design for safety use.

5.2 MATERIALS

| | |
|-----------|---------------------------------|
| Bushing | Aluminum nature anodized |
| PCB | FR4 94V-O rated Tin plating |
| Sealing | Silicon, Epoxy. |
| Cable | UL 3386, UL10368 or Equivalent. |
| Connector | Customer design. |
| LED | RGB SMT type. |

5.3 RATING

5-24VDC / 1A
5-24VAC / 1A
LED 5-24VDC

5.4 ELECTRICAL CHARACTERISTICS

| | |
|--------------------|-----------------------|
| Switch type | MOM. Pulse 200mS min. |
| Max. Current | 1A max. |
| Contact Resistance | 10Ω max. |
| Output mode | Transistor |

5.5 MECHANICAL CHARACTERISTICS

| | |
|---------------------------------|------------------------------|
| Actuation Force | 2N-5N |
| Operating Life | 10 Million cycle expectancy. |
| Cable retention force to Switch | 10 KG min. |
| Connector mating force | By connector define |
| Connector un-mating force | By connector define |

5.6 ENVIROMENTAL CONDITIONS

| | |
|-----------------------|-------------------|
| Operating Temperature | -20°C to +65°C |
| Storage Temperature | -40°C to +85°C |
| The Salt Test | See test sequence |
| HSF | See test sequence |

6. TEST SEQUENCE FOR QUALIFICATIONS:

| Electrical Parameter | | | |
|----------------------|--------------------|---|--|
| ITEM | DESCRIPTION | TEST CONDITIONS | REQUIREMENTS |
| 1 | Visual Examination | By Visual Examination check without and out pressure & testing. | There shall be no defects that affect the serviceability of the product. |
| 2 | Contact Resistance | @5VDC 1A. For transistor resistance from drain to source | 10Ω Max |
| 3 | Current Rating | With 5Ω resistor | 1A / 5VDC |

| Mechanical Parameter | | | |
|----------------------|---------------------------------|-------------------|---------------------|
| ITEM | DESCRIPTION | TEST CONDITIONS | REQUIREMENTS |
| 1 | Operating Life | Life cycle tester | 10 million cycle. |
| 2 | Cable retention force to switch | Force Analyzer | 10KG min. |
| 3 | Connector mating force | Force Analyzer | By connector define |
| 4 | Connector un-mating force | Force Analyzer | By connector define |

| Environmental Parameter | | | |
|-------------------------|-----------------------|---|--|
| ITEM | DESCRIPTION | TEST CONDITIONS | REQUIREMENTS |
| 1 | Operating Temperature | ① -20±3℃ for 96 hours. ② 65±3℃ for 96 hours. | Functions |
| 2 | IP 68 | IEC 60529 | Functions |
| 3 | Salt spray Testing | Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made: ① Temperature: 35±2 °C. ② The ratio of salt-water : 5%. ③ The spray amount of salt- water : 1~2 ml/h. ④ Time: 48 hours. | The testing standard based on bubble, crack, And magnifying glass with gauge. |
| 4 | HSF | Refer to RoHS Standard : The electronic electrical machinery product limits with six big chemical materials. | Cd < 100ppm. Pb < 1000ppm Hg < 1000ppm Cr6+ < 1000ppm PBB、PBDE < 1000ppm |

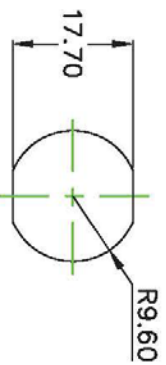
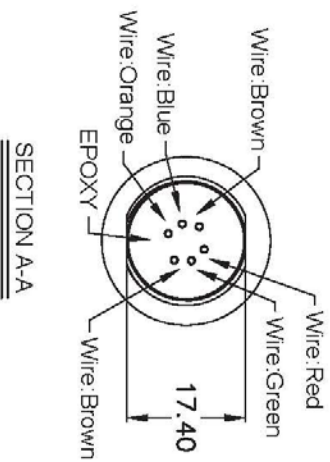
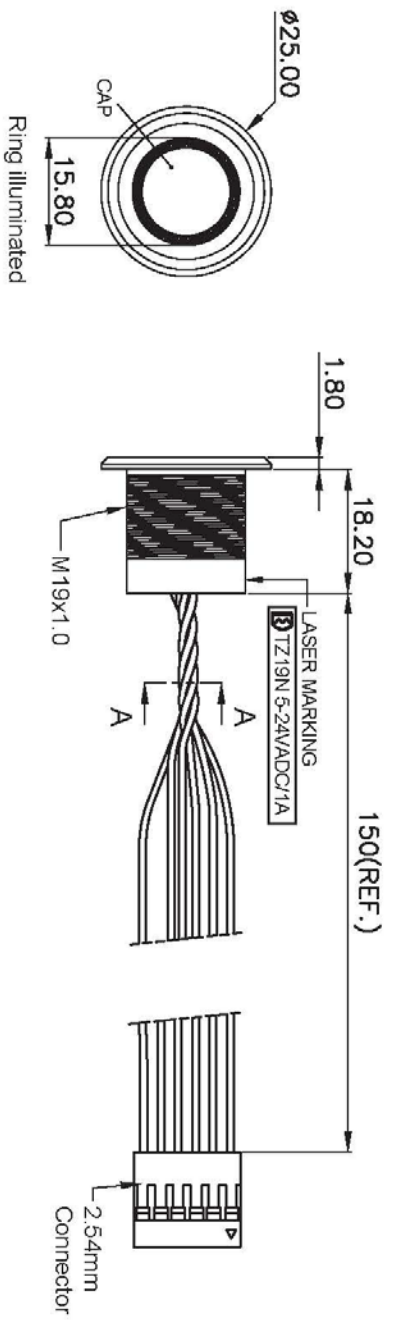
Oct. 24. 2017

7. PACKING AND PACKAGE:

ESD bag, paper box.

8. REVISION HISTORY:

| Rev. | Description | Date |
|------|------------------|------------|
| R01 | Research Project | 2017/10/24 |
| | | |
| | | |
| | | |

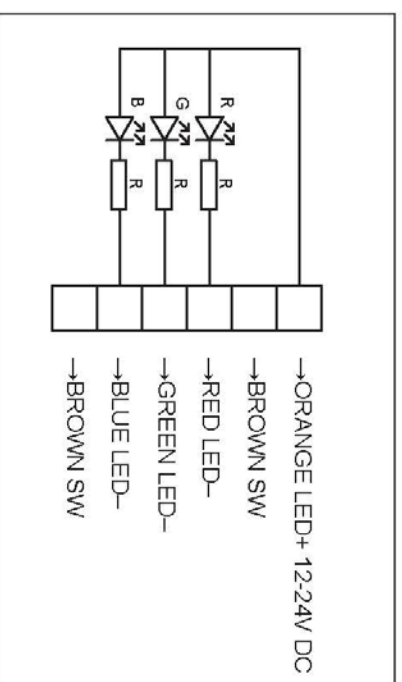
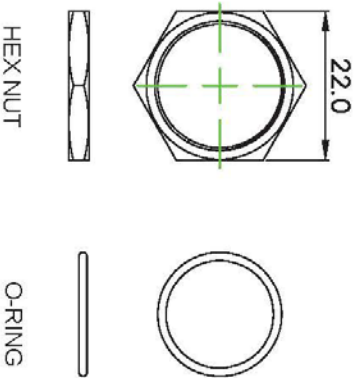


SPECIFICATIONS

- 1.RATING: 5-24VADC/1A PULSE MODE.
- 2.OPERATING LIFE: 50MILLION CYCLE MIN.
- 3.CONTACT RESISTANCE: 1Ω MAX.
- 4.OPERATING TEMPERATURE: -20°C to 65°C
- 5.INDICATOR: 12-24V DC

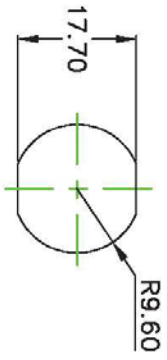
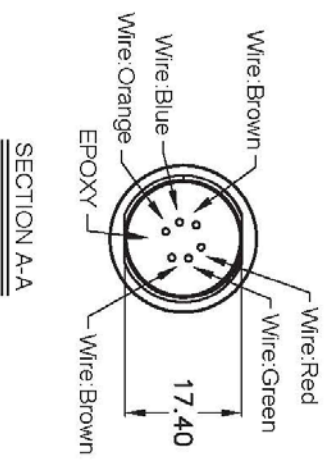
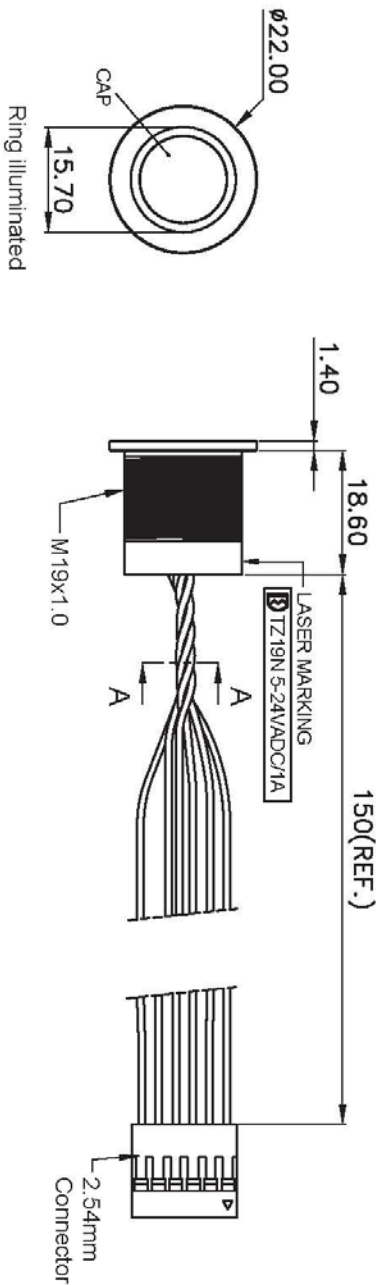
MATERIAL:

- BUSHING: Aluminum alloy.
 CAP: PC; Aluminum alloy.
 SEALING: Silicone; Epoxy.
 O-RING: Silicone
 HEX NUT: Nickel plated brass.
RoHS



TOLERANCE (公差):

| |
|------------------|
| 0.00 mm ± 0.25mm |
| 0.0 mm ± 0.40mm |
| ANGULAR: ±5° |



MAX PANEL THICKNESS: 10.0mm[0.394]

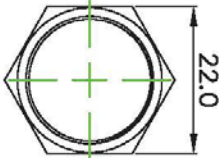
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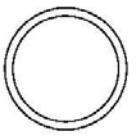
MATERIAL:

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- CAP: PC : Aluminum alloy.
- SEALING: Silicone, Epoxy.
- O-RING: Silicone
- HEX NUT: Nickel plated brass.

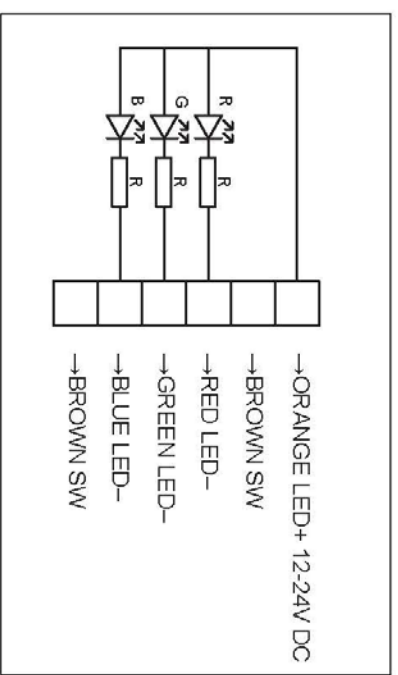
RoHS



HEX NUT



O-RING



Application Diagram

| | |
|-----------------------|--|
| TOLERANCE(公差): | |
| 0.00 mm ± 0.25mm | |
| 0.0 mm ± 0.40mm | |
| ANGULAR: ±5° | |