

PX-13/23/34

Family of Piezoelectric Switches Installation Manual

1. Introduction

Rosslare's PX-13/23/34 family of Piezoelectric buttons are heavy duty, non-sparking, non-magnetic, corrosion resistant, illuminated, anti-vandal, and designed for both indoor and harsh weather outdoor use.

The buttons feature solid state Piezoelectric Switch Technology generating a dry contact N.O. pulse at the touch of a finger, with no physical movement or moving parts.

The PX-13/23/34 series features a virtually unlimited lifespan of over 50 million uses, which is the ideal benefit of Piezoelectric technology. In addition, they are tested to be waterproof (IP68 rating) and work in harsh weather and environmental conditions.

Main Features:

- Virtual unlimited lifespan of over 50 million cycles
- Waterproof, rated IP-68
- Easy to install
- Seven optional body colors
- Two-colored LED control input (PX-23 and PX-34)

PX-13 – Piezoelectric Switch	PX-23 – Piezoelectric Switch with LED Indicator	PX-34 – Piezoelectric Toggle Switch with Controlled Light Ring
		

2. Technical Specifications

2.1 Electrical Characteristics

Model	PX-13	PX-23	PX-34
Switch Voltage	5–30 VDC/VAC		
Switch Current	1 A	1 A	100 mA
Power Supply Voltage	N/A	12 V	12 VDC
Contact Resistance	0.1 Ohm		16 Ohm
Impulse Time N.O.	> 50 ms		
Finger Pressure on Button	0.5 kg (17.6 oz) for 5 N		
Button Life	Over 50 million cycles		

2.2 Environmental Specifications

Model	PX-13	PX-23	PX-34
Operating Standard	Meets IP68		
Operating Environment	Outdoor use (waterproof)		
Operating Temperature Range	-30°C to 60°C (-22°F to 140°F)		
Storage Temperature Range	-30°C to 70°C (-22°F to 158°F)		
Operating Humidity Range	10% to 90%		

2.3 Physical Specifications

Model	PX-13	PX-23	PX-34
Height	19.5 mm (0.8 in.)		
Diameter	29.5 mm (1.2 in.)		
Standard Thread	22 mm (0.9 in.)		
Standard Wires	24 AWG Wire (UL1007)		
Pigtail Length	280 mm (11.0 in.)		
Weight	22 g (0.8 oz)		
Housing Colors	black, natural, gold, green, red, blue, white		

2.4 Wiring

Model	PX-13	PX-23	PX-34
Switch output	2 x blue		
12 VDC input for LED power supply	N/A*	red	red
Ground	N/A*	N/A	black
LED Control Input – Green LED	N/A*	green	green
LED Control Input – Red LED	N/A*	brown	brown (toggle control)

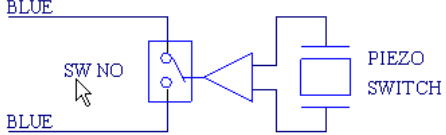
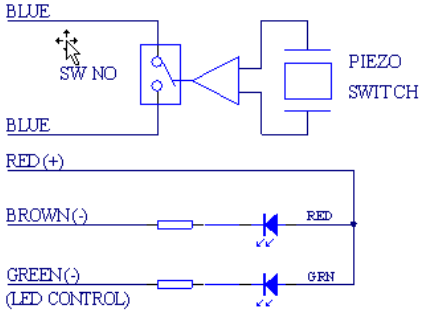
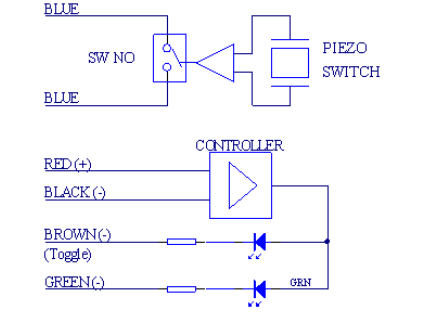
* It is not required to distinguish the polarity of the wire out.

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3. Wiring Diagrams

PX-13 – Piezoelectric Switch	PX-23 – Piezoelectric Switch with LED Indicator	PX-34 – Piezoelectric Toggle Switch with Controlled Light Ring
 <p>Diagram showing a piezoelectric switch connected to two blue wires. One wire is labeled "SW NO" and the other is labeled "BLUE".</p>	 <p>Diagram showing a piezoelectric switch connected to two blue wires. One wire is labeled "SW NO" and the other is labeled "BLUE". Below the switch, there are three LED indicators: RED (+), BROWN (-), and GREEN (-) (LED CONTROL). Each LED is connected to a corresponding wire and has a resistor in series.</p>	 <p>Diagram showing a piezoelectric toggle switch connected to two blue wires. One wire is labeled "SW NO" and the other is labeled "BLUE". Below the switch, there is a controller circuit. The controller is connected to three wires: RED (+), BLACK (-), and GREEN (-). Each wire has a resistor in series and is connected to a corresponding LED indicator.</p>

Limited Warranty

The full ROSSLARE Limited Warranty Statement is available in the Quick Links section on the ROSSLARE website at www.rosslaresecurity.com.

Rosslare considers any use of this product as agreement to the Warranty Terms even if you do not review them.

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