

Bulletin 800Z Zero-Force Touch Buttons™

General Purpose — Momentary Touch Buttons



General Purpose
Cat. No. 800Z-GF2Q5



General Purpose
Cat. No. 800Z-GL3Q5 with Guard
(Cat. No. 800Z-G3AG2)

800Z – G $\frac{L}{a}$ $\frac{3}{b}$ $\frac{065}{c}$

a	
Input Voltage and Output Type ❶	
Code	Description
Relay Output	
L	Input: 10...40V DC and 20...30V AC Output: relay
F	Input: 100...240V AC Output: relay
Transistor Output	
P	10...30V DC PNP (sourcing) output

b	
Mounting Hole Size ❷	
Code	Description
2	22.5 mm
3	30.5 mm

c	
Electrical Connection	
Code	Description
Sourcing Output ❸	
Q4	4-pin QD
064	6 ft (1.8 m) cabled
244	24 ft (7.2 m) cabled
Relay Output ❹	
Q5	5-pin QD
065	6 ft (1.8 m) cabled
245	24 ft (7.2 m) cabled

- ❶ Safety relays must be used with two relay output type Zero-Force Touch Buttons in 2-hand control applications. Order separately, safety relay 440R-D23171 for 24V, 440R-D23169 for 120V, 440R-D23168 for 240V.
- ❷ 22.5 mm touch buttons use micro connector, 30.5 mm touch buttons use mini connector.
- ❸ These devices are transistor outputs.
- ❹ These devices have separate N.O. and N.C. output relays with a shared common.

Specifications

Electrical Ratings

Attribute	General Purpose (800Z-G)	Heavy Industrial (800Z-H)
Input Voltage (Relay Type)	Low Voltage: 10...40V DC, 20...30V AC Full Voltage (800Z-GF): 100...240V AC (+10%, -15%)	
Input Voltage (Solid-state Type)	Low Voltage (800Z-GN/GP): 10...30V DC	
Electrical Design Life (Relay Type)	Relay output 200,000 operations @ 2 A inductive, 4 A resistive	Relay output 150,000 operations @ 5 A inductive, 2.5 A resistive
Degree of Protection	IP2X	
Wire Range	#22...12 AWG (0.5...4 mm ²)	
Tightening Torque	9 lb•in (1 N•m)	
On-delay/Off-delay	Off 60 ms max. On 76 ms max.	
Current Draw (Solid-state Type)	100 mA at 24V DC = 2.23 W (no external load)	

Mechanical Ratings

Attribute	General Purpose (800Z-G)	Heavy Industrial (800Z-H)
Vibration Endurance	Tested @ 10 G, 1.52 mm displacement	
Mechanical Shock	Tested @ 100 G (mechanical durability)	
Degree of Protection	Type 4/4X/13 IP66 1200 psi washdown	Type 4/13 IP66
Operating Force	Zero	

Environmental

Attribute	General Purpose (800Z-G)	Heavy Industrial (800Z-H)
Temperature Range	Operating	-25...+55 °C (-13...+131 °F)
	Storage	-40...+85 °C (-40...+185 °F)
Humidity	95% RH from 25...50 °C (77...122 °F) (full operation)	

Materials

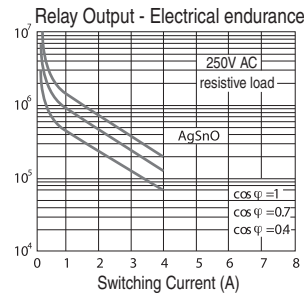
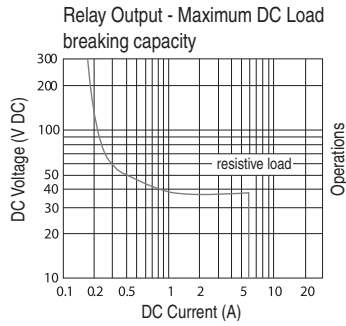
Attribute	General Purpose (800Z-G)	Heavy Industrial (800Z-H)
Housing/Guard	Valox 357	
Gasket	BUNA-N	1/16 in. Cork-BUNA-N
Connector	Insulator material (micro connector) = nylon Insulator material (mini connector) = PVC	

Standards and Certifications

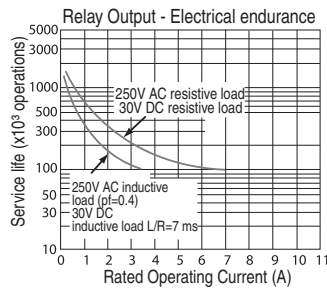
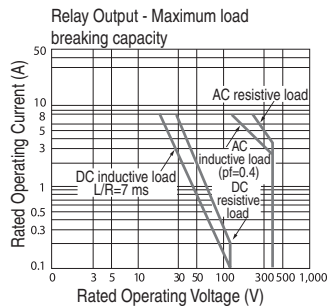
Attribute	General Purpose (800Z-G)	Heavy Industrial (800Z-H)
Standards Compliance	UL 508, CSA 22.2 No. 14, EN/IEC 60947-5-1, EN50081-2, EN61000-6-2, EN60954-1, EN60204-1	
Certifications	cULus, CE, C-Tick, CSA	

Load Life Curves

General Purpose



Heavy Industrial



Applications Detail

Status Indicator Blink Rate	Diagnostic	Description
*** **	Power-up	Device was touched during power-up. Device resumes 10 seconds after removal of hand.
**** **	Noise Detection	Device detected an unacceptable level of noise (>20V/m). Device resumes once noise subsides.
*****	Margin Detection	A conductive film is building up on the sensing surface. Device resumes once cleared.

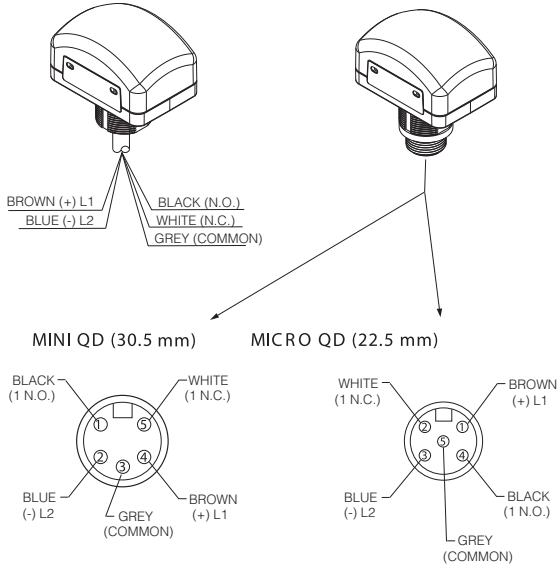
Wiring Diagrams — Touch Button Terminations

General Purpose

Electrical Connections:

10...40V DC and 20...30V AC input voltage (relay output); 100...240V AC input voltage (relay output)

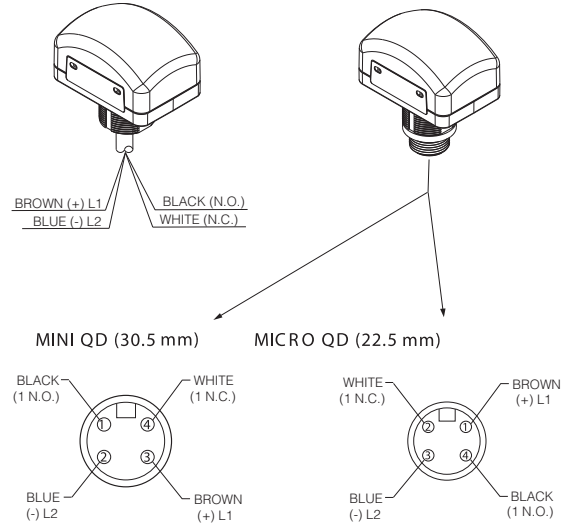
5-Conductor Cabled (Relay Output) — For 800Z-GL_ and 800Z-GF_



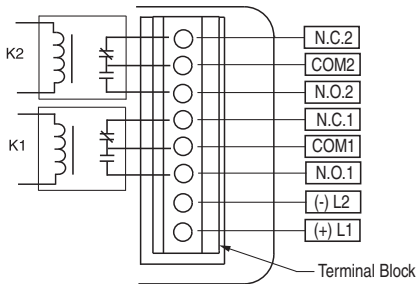
Electrical Connections:

10...30V DC input voltage (transistor output); 150 mA maximum per circuit output

4-Conductor Cabled



Heavy Industrial

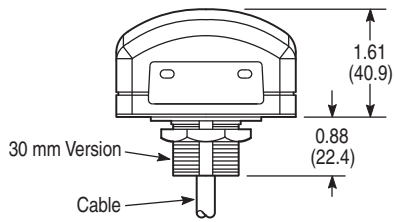
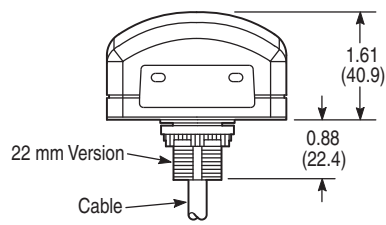
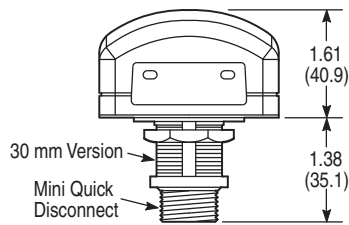
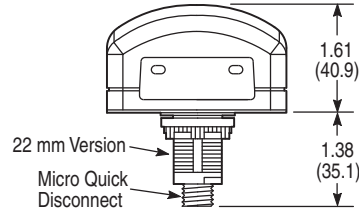
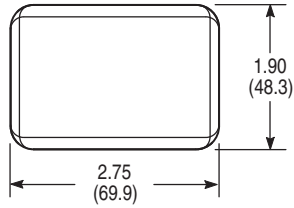


Approximate Dimensions

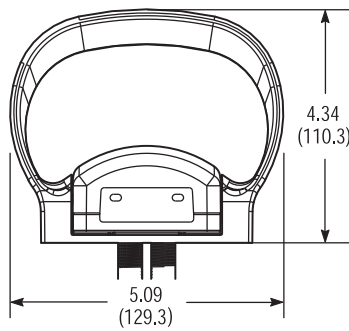
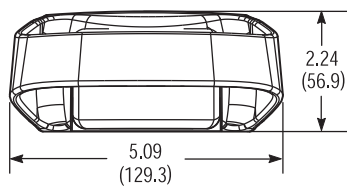
Dimensions in inches (millimeters). Dimensions are not intended to be used for manufacturing purposes.

General Purpose

Without Guard

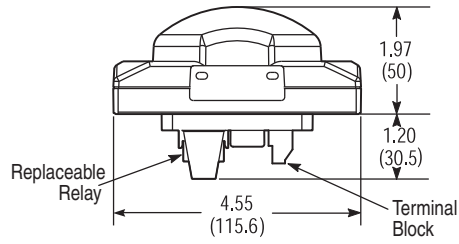
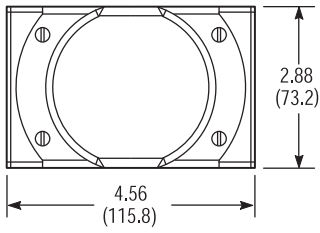


With Guard

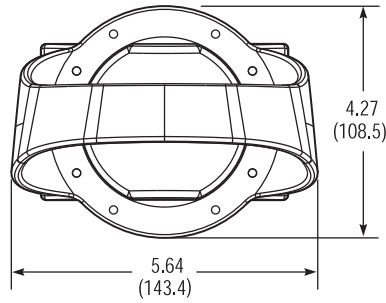
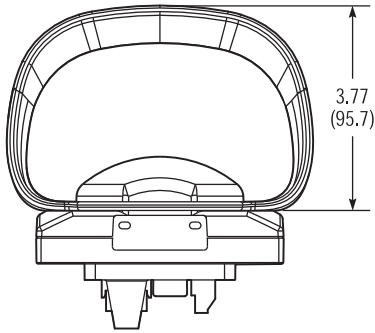


Heavy Industrial

Without Guard



With Guard



Cutout and Mounting Screw Locations for a Flush Mounted Cover

