Solid State Pedestrian Push Button

06/13/07

General Requirements

1. Shall be pressure activated with essentially no moving parts
2. Shall be highly vandal resistant
3. Button cap shall be made of No. 316 or 303 grade unpainted stainless steel
4. Shall activate with 3 lbs. force or less
5. Shall have an LED that illuminates when the button is being pushed
6. Shall give a toned beep verification of button being pushed
7. Shall have an operating life of 100 million actuations
8. Shall be compatible with all Pedestrian Isolation Units as defined by NEMA TS1-1989
9. Shall be compatible with Opto Inputs as defined by NEMA TS2-2003 v02.06 Section 8.8.5.2

Housing

1. Button housing shall be high impact cast or machined aluminum
2. Button housing and mounting cup shall be a cylindrical shaped assembly
3. Button housing shall have powder coat paint and be black in color
4. All switch electronics shall be sealed within the high impact cast or machined aluminum housing
5. The button shall be mounted to the pole utilizing a high impact black polycarbonate or aluminum push button cup
6. The button shall be mounted to the pushbutton cup utilizing stainless steel spanner head tamper resistant screw sets
7. Shall have a gasket between the button housing and the mounting cup.
8. Total depth of button and mounting cup, from face of button cap to back of the mounting cup shall be 3.25 inches or less
9. Button housing shall protect the button from side impacts
10. Push button shall be a minimum 2 inch diameter ADA style button

Electrical

1. Operating Voltage: 15 to 24V DC or 12 to 24V AC
2. On Resistance 10 Ohms (When the button is activated and placing a call)
3. Standby Current 10 micro amps typical
4. Shall have built in surge protection.
5. Shall have a solid state electronic piezo switch rated for 100 million cycles with no moving plunger or moving electrical contacts
6. Shall hold the call for a minimum of 5 seconds
7. Requires only two conductors be run from the traffic signal cabinet to the push button to operate
8. Six (6) units wired in parallel on a single ped isolator input shall not pull the input voltage of the ped isolator down such that a false pedestrian call is placed in the controller

Environmental

1. Operating Temperature -30 Degrees F to 165Degrees F (-34Degres C to 70 Degrees C)
2. Shall not allow ice to form such that it would impede function of button or button cap
3. Shall be able to be completely immersed in water for 5 minutes. The button shall operate immediately after being removed from the water
4. Shall be field tested in a traffic signal application for a period of at least one (1) year