

## TW Series – 22mm NEMA Style Pushbuttons



### TW NEMA Style Switches with snap-on contacts

Key features include:

- Corrosion resistant octagonal chrome plated locking bezel
- Snap-on 10A contact blocks
- Incandescent or LED illumination
- Slow make, double break, self cleaning contacts
- Modular construction for maximum flexibility
- NEMA 4X and IP65 watertight/oiltight panel
- Available assembled or as sub-components
- Large M3.5 screw terminals with captive sems plate

IDEC has your 22mm switching needs covered.

Button styles include flush, extended, mushroom, or square and all bodies are crafted from fracture-resistant nylon.

All illuminated units feature two lense styles, one that maximizes light dispersion, the other accommodates direct lens engraving.

Self cleaning contact mechanisms allow for a wide current rating, 5mA to 10A, which reduces the need for various contact materials.

When looking for a 22mm switch that is durable, easy to use, and versatile, then IDEC's TW series is your solution.



UL Listed  
File No. E70646



TUV Rheinland



CSA Approved  
File No. LR21451



File No. DK95-01696



Switches & Pilot Lights

Display Lights

Relays & Sockets

Timers

Terminal Blocks

Circuit Breakers

<b>Conforming to Standards</b>	EN60947-1, EN60947-5-1, VDE0660-200, UL508, CSA C22-2 No.14
<b>Approvals</b>	   File No. E70646    File No. LR21451    Certificate No. 2030010305027380    TÜV Rheinland  Registration No: J9551802 (E-Stops) Registration No: J9551803 (All other switches) Registration No: J9551804 (Pilot Lights)
<b>Operating Temperature</b>	Operation: -25 to +50°C (without freezing), Storage: -40 to +80°C (without freezing)
<b>Vibration Resistance</b>	5 to 55Hz, 100m/sec <sup>2</sup> (10g) conforming to IEC6068-2-6
<b>Shock Resistance</b>	1000m/sec <sup>2</sup> (100g) conforming to IEC6068-2-7
<b>Electric Shock Protection</b>	Class 0 conforming to IEC60536
<b>Degree of Protection (conforming to IEC60529) (conforming to NEMA ICS6-110)</b>	IP65 from front of the panel; (IP54 for key switches) IP20 (Type HW-F contact block) NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (NEMA 1, 2, 3R, 5, 12, 13 for key switches)
<b>Mechanical Life</b>	Momentary pushbuttons: 5,000,000 (900 operations per hour) All other switches: 500,000
<b>Pollution Degree (conforming to IEC60947-1)</b>	3 for switches not using a transformer, 2 for switches using a transformer
<b>Rated Operational Characteristics</b>	AC-15: A600 or Ue = 250V, Ie = 3A (NO, NC, NO-EM, NC-LB) DC-13: P600 or Ue = 125V, Ie = 1.1A (NO, NC) DC-13: Q600 or Ue = 125V, Ie = 0.9A (NO-EM, NC-LB)
<b>Rated Insulation Voltage</b>	600V
<b>Rated Switching Over-Voltage</b>	Less than 4kV, conforming to IEC60947-1
<b>Rated Impulse Withstanding Voltage</b>	4kV for contact circuit, 2.5kV for lamp circuit
<b>Rated Thermal Current</b>	10 Amp
<b>Minimum Switching Capacity</b>	5 mA at 3V AC/DC
<b>Contact Operation</b>	Slow break NC or slow make NO, self-cleaning
<b>Recommended Terminal Torque</b>	0.8 N m (7.1 in lb.)
<b>External Short-Circuit Protection</b>	10A 250V fuse conforming to IEC60269-1
<b>Applicable Wire Size</b>	Minimum 1 x 22 AWG, max. 2 x 14 AWG or 1 x 12 AWG
<b>Contact Resistance</b>	Initial contact resistance of 50mΩ or less
<b>Contact Gap</b>	4mm (NO and NC), 2mm (NO-EM and NC-LB)
<b>Electrical Reliability</b>	MTBF < 1 fault for 10 million operation cycles (3V DC, 5mA)
<b>Lamp Ratings</b>	Incandescent: 1 W LEDs: 6V: 17mA max, 12/24V: 11mA max, 120/240V: 10mA max
<b>Horsepower Rating</b>	1/4 HP @ 120V (single-phase, non-reversing motor); 1 HP @ 240V (3 phase, non-reversing motor)
<b>Maximum Inrush Current</b>	40 A (40 ms)
<b>Contact Material</b>	Silver

<b>Contact Ratings</b>	<b>Pushbuttons</b>	Contact Block	Type HW-C/HW-F
	<b>Illuminated Pushbuttons</b>	Rated Insulation Voltage	600V
	<b>Selector Switches</b>	Rated Continuous Current	10A
	<b>Illuminated Selector Switches</b> <b>Pushbutton Selectors</b>	Contact Ratings by Utilization Category IEC 60947-5-1	AC-15 (A600) DC-13 (P600)

		<b>Contact Ratings by Utilization Category</b>						
Operational Voltage			24V	48V	50V	110V	220V	440V
Operational Current	AC50/60Hz	AC-12 Control of resistive loads and solid state loads	10A	—	10A	10A	6A	2A
		AC-15 Control of electromagnetic loads (> 72VA)	10A	—	7A	5A	3A	1A
	DC	DC-12 Control of resistive loads and solid state loads	8A	5A	—	2.2A	1.1A	—
		DC-13 Control of electromagnets	5A	2A	—	1.1A	0.6A	—