

A3

Switches & Pilot Devices



### HW: The Best Engineered Switch in the World

#### Key features include:

- Locking lever removable contact blocks
- Finger-safe IP20 contacts as standard, other terminal styles available
- Tamperproof construction
- All E-stops meet EN418 and are compliant with SEMI S2 standards
- Worldwide approvals
- Easy to assemble
- Available assembled or as sub-components
- Choice of black plastic or metallic front bezels
- Incandescent or LED illumination
- Transformer or full voltage
- Slow make double break self cleaning contacts

IDEC's HW switches are "The best engineered switch in the world" for a reason. Carrying the CE mark, UL, CSA, CCC (Chinese), and TUV approvals, these switches are designed for use in almost any part of the world.

Complete with finger-safe contact blocks offering IP20 protection, these 7/8" (22mm) switches include illuminated and non-illuminated pushbuttons, pilot lights, selector switches, and emergency stop switches.

All switches also incorporate mechanically keyed safety locking levers, ensuring correct installation and maintaining safety in high-vibration applications.



File No. E68961



File No. LR92374



TÜV Rheinland

Registration No. R9551089 (E-stops)  
 Registration No. R50054316 (Dual Pushbuttons)  
 Registration No. J9650511 (Pilot Lights)  
 Registration No. J9551458 (all other switches)



Certificate No.  
 2005010305145656

|                 |                                                                                                                      |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |     |     |                              |      |      |      |    |
|-----------------|----------------------------------------------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|------------------------------|------|------|------|----|
| Specifications  | Conforming to Standards                                                                                              |             | EN60947-1, EN60947-5-1, VDE0660-200, UL508, CSA C22-2 No.14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |     |     |                              |      |      |      |    |
|                 | Approvals                                                                                                            |             | <div><div><br/>File No. E68961</div><div><br/>File No. LR92374</div><div><br/>Certificate No. 2005010305145656</div><div><br/>TÜV Rheinland<br/>Registration No. R9551089 (E-stops)<br/>Registration No. J9551458 (all other switches)<br/>Registration No. J9650511 (Pilot Lights)</div><div></div></div> <div><b>CSA:</b> pushbuttons and selector switches: A600<br/>pilot lights and illuminated pushbuttons, direct supply<br/>pilot lights and illuminated pushbuttons with integral transformer (100/110, 115, 120, 200/220, 230, 240, 380, 400/440, 480V)<br/><b>UL:</b> pushbuttons and selector switches: A600<br/>pilot lights and illuminated pushbuttons, direct supply<br/>pilot lights and illuminated pushbuttons with integral transformer (100/110, 115, 120, 200/220, 230, 240, 380, 400/440, 480V)<br/><b>TUV:</b> pushbuttons and selector switches: A600=P600 (NO, NC)/Q600 (NO-EM, NC-LB)<br/>pilot lights and illuminated pushbuttons, direct supply<br/>pilot lights and illuminated pushbuttons with integral transformer (100/110, 115, 120, 200/220, 230, 240, 380, 400/440, 480V)</div> |     |     |                              |      |      |      |    |
|                 | Operating Temperature                                                                                                |             | Operation: -25 to +50°C (without freezing), Storage: -40 to +70°C (without freezing)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |     |                              |      |      |      |    |
|                 | Vibration Resistance                                                                                                 |             | 10 to 55Hz, 98m/sec <sup>2</sup> (10G) conforming to IEC6068-2-6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |     |     |                              |      |      |      |    |
|                 | Shock Resistance                                                                                                     |             | 980m/sec <sup>2</sup> (100G) conforming to IEC6068-2-7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |     |     |                              |      |      |      |    |
|                 | Electric Shock Protection                                                                                            |             | Class 0 conforming to IEC60536                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |     |     |                              |      |      |      |    |
|                 | Degree of Protection<br>(conforming to IEC60529)<br>(conforming to NEMA ICS6-110)                                    |             | IP65 (from front of the panel)<br>IP20 (Type HW-F contact block)<br>NEMA 1, 2, 3, 3R, 3S, 4, 4X, 5, 12, 13 (from front of panel)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |     |     |                              |      |      |      |    |
|                 | Mechanical Life                                                                                                      |             | Momentary pushbuttons: 5,000,000 (900 operations per hour), All other switches: 500,000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |     |     |                              |      |      |      |    |
|                 | Pollution Degree (conforming to IEC60947-1)                                                                          |             | 3 for switches not using a transformer, 2 for switches using a transformer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |     |     |                              |      |      |      |    |
|                 | Rated Operational Characteristics                                                                                    |             | AC-15: A600 or Ue = 250V, Ie = 3A (NO, NC, NO-EM, NC-LB)<br>DC-13: P600 or Ue = 125V, Ie = 1.1A (NO, NC)<br>DC-13: Q600 or Ue = 125V, Ie = 0.9A (NO-EM, NC-LB)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |     |     |                              |      |      |      |    |
|                 | Rated Insulation Voltage                                                                                             |             | 600V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |     |                              |      |      |      |    |
|                 | Rated Switching Over-Voltage                                                                                         |             | Less than 4kV, conforming to IEC60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |     |     |                              |      |      |      |    |
|                 | Rated Impulse Withstanding Voltage                                                                                   |             | 4kV for contact circuit, 2.5kV for lamp circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |     |     |                              |      |      |      |    |
|                 | Rated Thermal Current                                                                                                |             | 10 Amp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |     |     |                              |      |      |      |    |
|                 | Minimum Switching Capacity                                                                                           |             | 5 mA at 3V AC/DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |     |     |                              |      |      |      |    |
|                 | Contact Operation                                                                                                    |             | Slow break NC or NO, self-cleaning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |     |                              |      |      |      |    |
|                 | Positive Action Operation<br>(Emergency Stops with NC contacts)                                                      |             | 5.5mm to 10mm travel to latch<br>45N minimum force to latch<br>10mm maximum travel<br>1,800 operations per hour maximum for a Pushlock Turn Reset<br>900 operations per hour maximum for a Push-Pull                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |     |                              |      |      |      |    |
|                 | Operating Force                                                                                                      |             | Flush and extended pushbuttons—with 1NO or 1NC contact: 6.2±2N (momentary), 7.0±2N (main-<br>tained)<br>Additional contacts—1NO or 1NC: +3.2N (momentary), + 3.3N (maintained)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |     |     |                              |      |      |      |    |
|                 | Terminal Referencing                                                                                                 |             | Conforming to CENELEC EN50005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |     |                              |      |      |      |    |
|                 | Recommended Terminal Torque                                                                                          |             | 0.8 N m (7.1 in lb.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |     |                              |      |      |      |    |
|                 | External Short-Circuit Protection                                                                                    |             | 10A 250V fuse conforming to IEC60269-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |     |     |                              |      |      |      |    |
|                 | Applicable Wire Size                                                                                                 |             | Minimum 1 x 22 AWG, max. 2 x 14 AWG or 1 x 12 AWG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |     |     |                              |      |      |      |    |
|                 | Contact Resistance                                                                                                   |             | Initial contact resistance of 50mΩ or less                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |     |     |                              |      |      |      |    |
|                 | Contact Gap                                                                                                          |             | 4mm (NO and NC), 2mm (NO-EM and NC-LB)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |     |     |                              |      |      |      |    |
|                 | Horsepower Rating                                                                                                    |             | Reference Value: 1/4 HP @ 120V (1ø non-reversing), 1HP @ 240V (3ø non-reversing)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |     |     |                              |      |      |      |    |
|                 | Electrical Reliability                                                                                               |             | MTBF < 1 fault for 10 million operation cycles (3V DC, 5mA)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |     |     |                              |      |      |      |    |
|                 | Lamp Ratings                                                                                                         |             | Incandescent: 1 W<br>LEDs: 6V/17mA max, 12V & 24V/11mA max, 120 & 240V/10mA max                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |     |     |                              |      |      |      |    |
|                 | Maximum Inrush Current                                                                                               |             | 40 A (40 ms)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |     |     |                              |      |      |      |    |
|                 | Contact Material                                                                                                     |             | Silver (gold plated contacts available - contact IDEC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |     |     |                              |      |      |      |    |
| Contact Ratings | Pushbuttons<br>Illuminated Pushbuttons<br>Selector Switches<br>Illuminated Selector Switches<br>Pushbutton Selectors |             | Contact Block                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |     | Type HW-C/HW-F /HW-G         |      |      |      |    |
|                 |                                                                                                                      |             | Rated Insulation Voltage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |     |     | 600V                         |      |      |      |    |
|                 |                                                                                                                      |             | Rated Continuous Current                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |     |     | 10A                          |      |      |      |    |
|                 |                                                                                                                      |             | Contact Ratings by Utilization Category<br>IEC 60947-5-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |     |     | AC-15 (A600)<br>DC-13 (P600) |      |      |      |    |
| Characteristics | Operational Voltage                                                                                                  |             | 24V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 48V | 50V | 110V                         | 220V | 440V |      |    |
|                 | Operational Current                                                                                                  | AC 50/60 Hz | AC-12 Control of resistive loads & 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 & solid state loads                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     | 8A  | 5A                           | —    | 2.2A | 1.1A | —  |
|                 |                                                                                                                      |             | DC-13 Control of electromagnets                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |     | 5A  | 2A                           | —    | 1.1A | 0.6A | —  |



- For dimensions, see page A3-100.
- For life expectancy derating curves, see page A3-105.

## Non-Illuminated Pushbuttons (Assembled)

### Part Numbers: Non-Illuminated Pushbuttons

| Style                               | Contact                                        | Plastic Bezel                                                                                      |                                                                                              | Metal Bezel                                                                                  |                                                                                              |
|-------------------------------------|------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|                                     |                                                | Momentary                                                                                          | Maintained                                                                                   | Momentary                                                                                    | Maintained                                                                                   |
| <b>Round Flush</b><br>              | 1NO<br>1NC<br>1NO-1NC<br>2NO<br>2NC<br>2NO-2NC | HW1B-M1F10-①<br>HW1B-M1F01-①<br>HW1B-M1F11-①<br>HW1B-M1F20-①<br>HW1B-M1F02-①<br>HW1B-M1F22-①       | HW1B-A1F10-①<br>HW1B-A1F01-①<br>HW1B-A1F11-①<br>HW1B-A1F20-①<br>HW1B-A1F02-①<br>HW1B-A1F22-① | HW4B-M1F10-①<br>HW4B-M1F01-①<br>HW4B-M1F11-①<br>HW4B-M1F20-①<br>HW4B-M1F02-①<br>HW4B-M1F22-① | HW4B-A1F10-①<br>HW4B-A1F01-①<br>HW4B-A1F11-①<br>HW4B-A1F20-①<br>HW4B-A1F02-①<br>HW4B-A1F22-① |
| <b>Round Extended</b><br>           | 1NO<br>1NC<br>1NO-1NC<br>2NO<br>2NC<br>2NO-2NC | HW1B-M2F10-①<br>HW1B-M2F01-①<br>HW1B-M2F11-①<br>HW1B-M2F20-①<br>HW1B-M2F02-①<br>HW1B-M2F22-①       | HW1B-A2F10-①<br>HW1B-A2F01-①<br>HW1B-A2F11-①<br>HW1B-A2F20-①<br>HW1B-A2F02-①<br>HW1B-A2F22-① | HW4B-M2F10-①<br>HW4B-M2F01-①<br>HW4B-M2F11-①<br>HW4B-M2F20-①<br>HW4B-M2F02-①<br>HW4B-M2F22-① | HW4B-A2F10-①<br>HW4B-A2F01-①<br>HW4B-A2F11-①<br>HW4B-A2F20-①<br>HW4B-A2F02-①<br>HW4B-A2F22-① |
| <b>29mm Mushroom Head</b><br>       | 1NO<br>1NC<br>1NO-1NC<br>2NO<br>2NC<br>2NO-2NC | HW1B-M3F10-①<br>HW1B-M3F01-①<br>HW1B-M3F11-①<br>HW1B-M3F20-①<br>HW1B-M3F02-①<br>HW1B-M3F22-①       | HW1B-A3F10-①<br>HW1B-A3F01-①<br>HW1B-A3F11-①<br>HW1B-A3F20-①<br>HW1B-A3F02-①<br>HW1B-A3F22-① | HW4B-M3F10-①<br>HW4B-M3F01-①<br>HW4B-M3F11-①<br>HW4B-M3F20-①<br>HW4B-M3F02-①<br>HW4B-M3F22-① | HW4B-A3F10-①<br>HW4B-A3F01-①<br>HW4B-A3F11-①<br>HW4B-A3F20-①<br>HW4B-A3F02-①<br>HW4B-A3F22-① |
| <b>40mm Mushroom Head</b><br>       | 1NO<br>1NC<br>1NO-1NC<br>2NO<br>2NC<br>2NO-2NC | HW1B-M4F10-①<br>HW1B-M4F01-①<br>HW1B-M4F11-①<br>HW1B-M4F20-①<br>HW1B-M4F02-①<br>HW1B-M4F22-①       | HW1B-A4F10-①<br>HW1B-A4F01-①<br>HW1B-A4F11-①<br>HW1B-A4F20-①<br>HW1B-A4F02-①<br>HW1B-A4F22-① | HW4B-M4F10-①<br>HW4B-M4F01-①<br>HW4B-M4F11-①<br>HW4B-M4F20-①<br>HW4B-M4F02-①<br>HW4B-M4F22-① | HW4B-A4F10-①<br>HW4B-A4F01-①<br>HW4B-A4F11-①<br>HW4B-A4F20-①<br>HW4B-A4F02-①<br>HW4B-A4F22-① |
| <b>60mm Jumbo Mushroom Head</b><br> | 1NO<br>1NC<br>1NO-1NC<br>2NO<br>2NC<br>2NO-2NC | HW1B-M5F10-①*<br>HW1B-M5F01-①*<br>HW1B-M5F11-①*<br>HW1B-M5F20-①*<br>HW1B-M5F02-①*<br>HW1B-M5F22-①* | —                                                                                            | —                                                                                            | —                                                                                            |
| <b>Square Flush</b><br>             | 1NO<br>1NC<br>1NO-1NC<br>2NO<br>2NC<br>2NO-2NC | HW2B-M1F10-①<br>HW2B-M1F01-①<br>HW2B-M1F11-①<br>HW2B-M1F20-①<br>HW2B-M1F02-①<br>HW2B-M1F22-①       | HW2B-A1F10-①<br>HW2B-A1F01-①<br>HW2B-A1F11-①<br>HW2B-A1F20-①<br>HW2B-A1F02-①<br>HW2B-A1F22-① | —                                                                                            | —                                                                                            |
| <b>Square Extended</b><br>          | 1NO<br>1NC<br>1NO-1NC<br>2NO<br>2NC<br>2NO-2NC | HW2B-M2F10-①<br>HW2B-M2F01-①<br>HW2B-M2F11-①<br>HW2B-M2F20-①<br>HW2B-M2F02-①<br>HW2B-M2F22-①       | HW2B-A2F10-①<br>HW2B-A2F01-①<br>HW2B-A2F11-①<br>HW2B-A2F20-①<br>HW2B-A2F02-①<br>HW2B-A2F22-① | —                                                                                            | —                                                                                            |

#### ① Button Color Code

| Color  | Code |
|--------|------|
| Black  | B    |
| Green  | G    |
| Red    | R    |
| Blue   | S    |
| White  | W    |
| Yellow | Y    |
| Grey   | N*   |

\* Grey is available for Round Flush models only.



1. In place of ①, specify the Button Color Code.
2. \* Jumbo mushroom available only in red, green, black, and yellow.
3. For nameplates and accessories, see page A3-96 and A3-98.
4. For dimensions, see page A3-100.
5. For sub-assembly part numbers, see page A3-56.

## Dimensions — HW Series

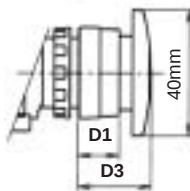
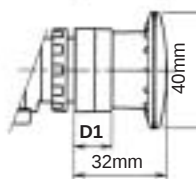
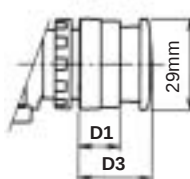
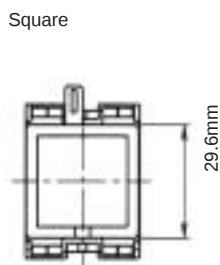
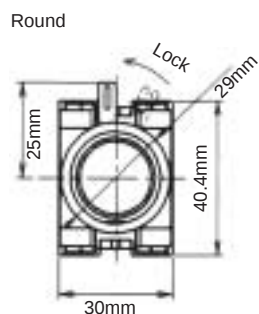
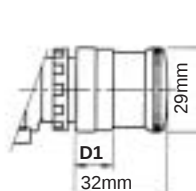
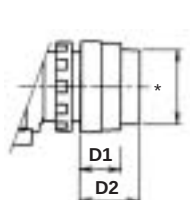
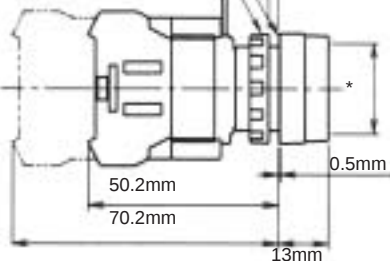
### Non-Illuminated Pushbuttons

Panel Thickness 0.8mm to 6.0mm

M3.5 Terminal Screws

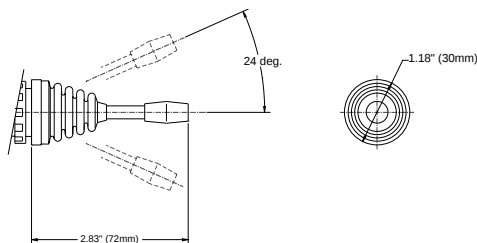
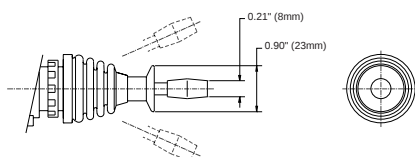
Gasket  
Locking Ring

\* Round: 23.6mm  
\* Square: 24.8mm



D1 = 13mm    D2 = 19mm    D3 = 23.2mm

### Monolever



### Pilot Lights

M3.5 Terminal Screws

Panel Thickness 0.8mm to 6.0mm

Gasket  
Locking Ring

