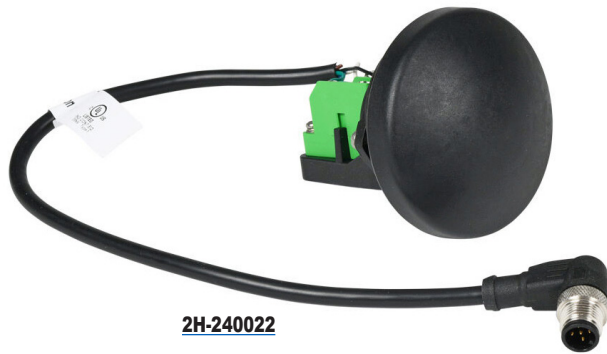


# IDEM Mechanical Pushbutton For Two-Hand Control

**2H-240022**

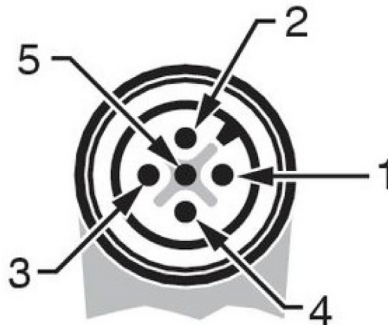
The IDEM Mechanical Pushbutton is a mechanically activated pushbutton with 1 NO and 1 NC set of contacts. This pushbutton was designed for use with any two-hand control system. This pushbutton is supplied with a 250mm [9.84 in] flying lead with a 5-pin M12 male plug. The plug makes it easy to connect to the PCB connection board which is part of IDEM's two-hand control stations.

For systems with frequent operational use, Zero Force touch switches ([2H-240021](#)) are recommended for more ergonomic operation.

| IDEM Mechanical Pushbutton               |                                                                                                     |
|------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Part Number</b>                       | <b><a href="#">2H-240022</a></b>                                                                    |
| <b>Price</b>                             | \$108.00                                                                                            |
| <b>Description</b>                       | IDEM pushbutton, IP65, 30mm, momentary, (1) N.O./ (1) N.C. contact(s), black, mushroom, 68mm, round |
| <b>Mounting Diameter</b>                 | 30mm [1.18 in]                                                                                      |
| <b>Actuating Stroke</b>                  | 3mm [0.12 in]                                                                                       |
| <b>Pushbutton Material</b>               | Polyester                                                                                           |
| <b>Front Panel Thickness</b>             | 4 to 5 mm [0.16 to 0.20 in]                                                                         |
| <b>Weight</b>                            | 177g [0.39 lb]                                                                                      |
| <b>Mounting Screws Tightening Torque</b> | 1.0 N•m [0.74 lb•ft]                                                                                |
| <b>Terminal Tightening Torque</b>        | 0.8 N•m [0.58 lb•ft]                                                                                |
| <b>Ambient Temperature</b>               | -20°C to +40°C [-4°F to +104°F]                                                                     |
| <b>Ingress Protection Rating</b>         | IP65                                                                                                |
| <b>Mechanical Life</b>                   | 1,000,000 operations                                                                                |
| <b>Standards</b>                         | ISO 13851; UL File E258676                                                                          |
| <b>Drawing</b>                           | PDF                                                                                                 |

## Cable Connections

| 5-Pin M12 Connections |            |
|-----------------------|------------|
| <b>1</b>              | Not used   |
| <b>2 (white)</b>      | NC contact |
| <b>3</b>              | Not used   |
| <b>4 (black)</b>      | NO contact |
| <b>5 (gray)</b>       | Common     |



**Note:** The product ships with a jumper between the NO contact and the NC contact so that the common signal can be used for both the NC and the NO contact.

# IDEM TouchSafe Two-Hand Control Panels



IDEM TouchSafe Two-Hand Control Panels are an all-in-one-box solution that is ergonomic, easy to set up, and easy to use. These panels take the guesswork out of two-hand pushbutton spacing and provide straightforward mounting options.



**2H-240001**



**2H-240002**

## Applications

Two-hand control panels are designed for use in combination with a two-hand control monitoring device and require an operator to use both hands at the same time when initiating a hazardous operation. This forces operators to have their hands on the two-hand control actuator elements and out of the danger zone while the system is actuated.

## Safety Design

These panels are designed with guard hoods over the actuator elements, which prevent individuals from circumventing the protection function using just one hand or other body parts. For additional safety, these two-hand control panels have been designed so that it is not possible to operate them from the back side of a panel. The two-hand control station is a complementary device designed to ensure that the operator's hands remain away from a hazard. Additional safety measures – for example, guarding – may be needed to ensure operator safety.

## Features

- Pre-installed two-hand pushbuttons for ease of installation
- Five additional pre-drilled M22 holes (ships with hole covers installed)
- Ergonomic operation
- Two-part enclosure
- Die-cast aluminum enclosure
- Ability to be wall mounted
- Guard hoods over the actuator elements
- Safety yellow and black finish
- Optional empty enclosure
- Convenient terminal block inside the enclosure



### IDEM Two-Hand Control Panel Selection Guide

| Part Number                                    | Price    | Type of Pushbutton                          | Pushbutton Contacts | Ingress Protection | Weight (kg [lb]) | Drawing |
|------------------------------------------------|----------|---------------------------------------------|---------------------|--------------------|------------------|---------|
| <b>Control Panel Versions With Pushbuttons</b> |          |                                             |                     |                    |                  |         |
| <b><u>2H-240001</u></b>                        | \$703.00 | Zero Force touch switch with LED indication | 2 (1 NO, 1 NC)      | IP65               | 5.4 [11.92]      | PDF     |
| <b><u>2H-240002</u></b>                        | \$576.00 | Mechanical momentary pushbuttons            | 2 (1 NO, 1 NC)      | IP65               | 5.5 [12.19]      | PDF     |

### Control Panel Without Pushbuttons Selection Guide

| Part Number             | Price    | Type of Pushbutton               | Pushbutton Contacts                                                                               | Ingress Protection | Weight (kg [lb]) | Drawing |
|-------------------------|----------|----------------------------------|---------------------------------------------------------------------------------------------------|--------------------|------------------|---------|
| <b><u>2H-240000</u></b> | \$394.00 | Aluminum die-cast, powder coated | Two 30mm holes (for two-hand control buttons) and five 22mm holes for additional buttons or lamps | IP65               | 5.2 [11.40]      | PDF     |



# IDEM TouchSafe Two-Hand Control Panels – Connections



The enclosure features an internal connection PCB. This board makes it very simple to change out a pushbutton or a light, reducing the overall cost of ownership. The PCB has two M12 5-pin connectors for connection to either of IDEM's pushbuttons (the [2H-240021](#) Zero Force pushbutton or the [2H-240022](#) mechanically activated pushbutton) for two-hand control. In addition, the board provides four V+ terminals, four V- terminals, and eight pairs of pass-through terminals for end-user use.

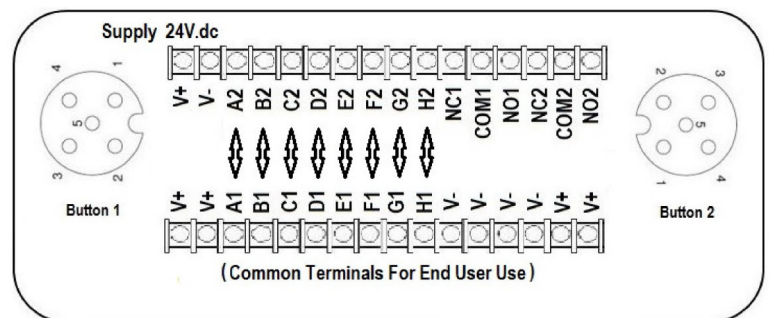
## PCB Connections

### IDEM TouchSafe Two Hand Control Panels PCB Terminals Wiring Connections

| Top-Row Terminals |             |                                             |
|-------------------|-------------|---------------------------------------------|
| Terminal          | Connects to | Description                                 |
| V+                | DC supply   | Required when using Zero Force type buttons |
| V-                | DC supply   | Required when using Zero Force type buttons |
| NC1               | Button 1    | Normally closed (NC) circuit                |
| COM1              | Button 1    | Common                                      |
| NO1               | Button 1    | Normally open (NO) circuit                  |
| NC2               | Button 2    | Normally closed (NC) circuit                |
| COM2              | Button 2    | Common                                      |
| NO2               | Button 2    | Normally open (NO) circuit                  |

| Pass-Through Terminals |             |                                    |
|------------------------|-------------|------------------------------------|
| Terminal               | Connects to | Description                        |
| A1                     | A2          | Common connection for end user use |
| B1                     | B2          | Common connection for end user use |
| C1                     | C2          | Common connection for end user use |
| D1                     | D2          | Common connection for end user use |
| E1                     | E2          | Common connection for end user use |
| F1                     | F2          | Common connection for end user use |
| G1                     | G2          | Common connection for end user use |
| H1                     | H2          | Common connection for end user use |

| Bottom-Row Common Terminals |                      |                                    |
|-----------------------------|----------------------|------------------------------------|
| Terminal                    | Connects to          | Description                        |
| All V+                      | Internally connected | Common connection for end user use |
| All V-                      | Internally connected | Common connection for end user use |



# Safety Products



*Warning: Safety products sold by AutomationDirect are Safety components only. The purchaser/installer is solely responsible for the application of these components and ensuring all necessary steps have been taken to assure each application and use meets all performance and applicable safety requirements and/or local, national and/or international safety codes as required by the application. AutomationDirect cannot certify that our products, used solely or in conjunction with other AutomationDirect or other vendors' products, will assure safety for any application. Any person using or applying any products sold by AutomationDirect is responsible for learning the safety requirements for their individual application and applying them, and therefore assumes all risks, and accepts full and complete responsibility, for the selection and suitability of the product for their respective application.*

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