

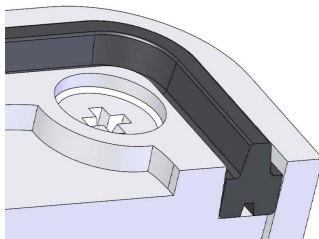


## 720 TFX Series Sealed and Rugged Keypads

These tough, water resistant keypads feature moving, tactile keys with a responsive 'over-centre' action and are designed for use in harsh industrial environments. High contrast white keytops are permanently laser engraved with black characters.



The keypad can be installed on the surface or under the panel.  
( Underpanel Installation Instructions are in the Underpanel Fitting Kit )  
Fit the supplied silicone seal into the seal groove on the keypad  
Use the groove on top for underpanel, and on back for surface fix.  
The wide part of the seal goes into the groove – see picture below of the seal fitted to the back of the keypad.



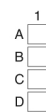
### Connection Details

#### Connection Details for 4 Key Keypad

##### CONTACT CONNECTIONS



(As viewed from rear of keypad)



KEY LOCATION

(As viewed from front of keypad)

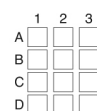
| CONTACT MATRIX |             |
|----------------|-------------|
| CONN. PIN      | ROW/ COLUMN |
| 1              | common      |
| 2              | D           |
| 3              | C           |
| 4              | B           |
| 5              | A           |

#### Connection Details for 12 Key Keypad

##### CONTACT CONNECTIONS



(As viewed from rear of keypad)



KEY LOCATION

(As viewed from front of keypad)

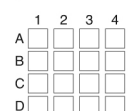
| CONTACT MATRIX |             |
|----------------|-------------|
| CONN. PIN      | ROW/ COLUMN |
| 1              | A           |
| 2              | B           |
| 3              | 1           |
| 4              | 2           |
| 5              | 3           |
| 6              | -           |
| 7              | D           |
| 8              | C           |

#### Connection Details for 16 Key Keypad

##### CONTACT CONNECTIONS



(As viewed from rear of keypad)



KEY LOCATION

(As viewed from front of keypad)

| CONTACT MATRIX |             |
|----------------|-------------|
| CONN. PIN      | ROW/ COLUMN |
| 1              | A           |
| 2              | B           |
| 3              | 1           |
| 4              | 2           |
| 5              | 3           |
| 6              | 4           |
| 7              | D           |
| 8              | C           |

### Electrical

|                       |                         |
|-----------------------|-------------------------|
| Contact Bounce        | 5 ms (max)              |
| Contact Resistance    | 100 ohms (max)          |
| Insulation Resistance | 50 Mohms (min)          |
| Breakdown Voltage     | 500 V AC (max 60 secs.) |
| Switch Rating         | 24V DC 50mA (max)       |
| Connection            | X-Y Matrix              |

### Mechanical

|                  |                                   |
|------------------|-----------------------------------|
| Operational Life | 2 million cycles (min) per key    |
| Keytop Travel    | 1.4mm nominal                     |
| Actuation Force  | 150 grams nominal                 |
| Connector        | 0.1"pitch, gold plated square pin |
| Mating Connector | Molex 2695 Series or equivalent   |

### Performance

|                     |                                      |
|---------------------|--------------------------------------|
| Operational Temp    | -20°C to 60°C                        |
| Impact Rating       | 5 J                                  |
| Vibration/Shock     | ETSI 300 019 5M3                     |
| Water / Dust sealed | IP65 (when fixed to suitable panel ) |

### Part Numbers

|             |                        |
|-------------|------------------------|
| 7203-04C020 | 720TFX SERIES 4 KEY    |
| 7203-12T020 | 720TFX SERIES 12 KEY   |
| 7203-16T020 | 720TFX SERIES 16 KEY   |
| 7200-FK020  | UNDERPANEL FITTING KIT |

### Accessories

|                      |                                                                            |
|----------------------|----------------------------------------------------------------------------|
| 4200-00              | RS232 Encoder Interface Module                                             |
| 4500-00              | 450 USB Encoder Interface Module                                           |
| 4500-10              | 450i USB Encoder Interface Module with Buzzer and Illumination Control     |
| Replacement Seals -- | go to <a href="http://www.storm-interface.com">www.storm-interface.com</a> |

### Dimensions

|                    |  |
|--------------------|--|
| Overall sizes      |  |
| Panel Cutout DXF   |  |
| Surface Model STEP |  |

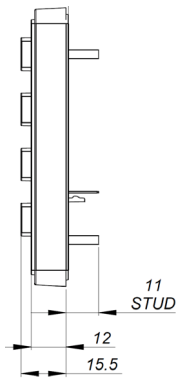
See following page.  
Download .dxf and .stp files from  
[www.storm-interface.com](http://www.storm-interface.com)



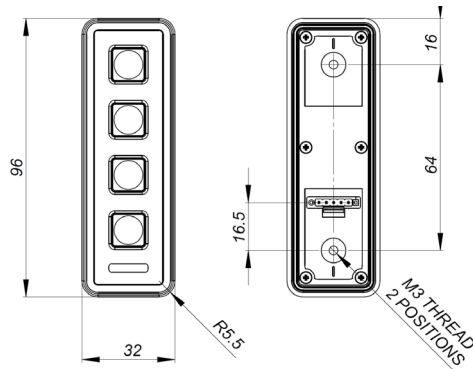
Install the keypad onto the surface of a panel as follows :-

- Fit the seal to the rear of the keypad
- Place the keypad onto the panel and fit the self locking nuts to the studs on the back
- Recommended tightening torque 50Ncm

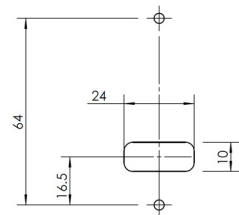
Side View : 4, 12, 16



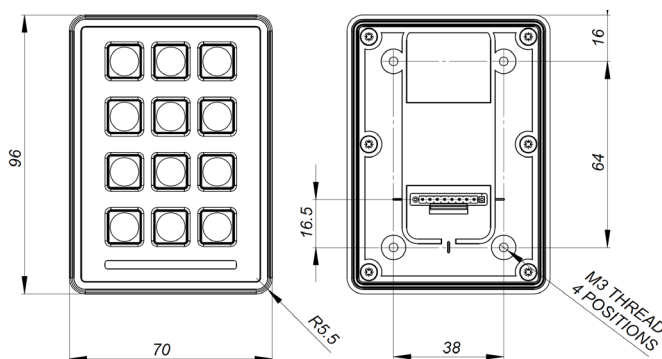
Front and Back View : 4 way



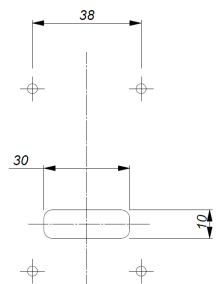
Panel Cutout : 4 way



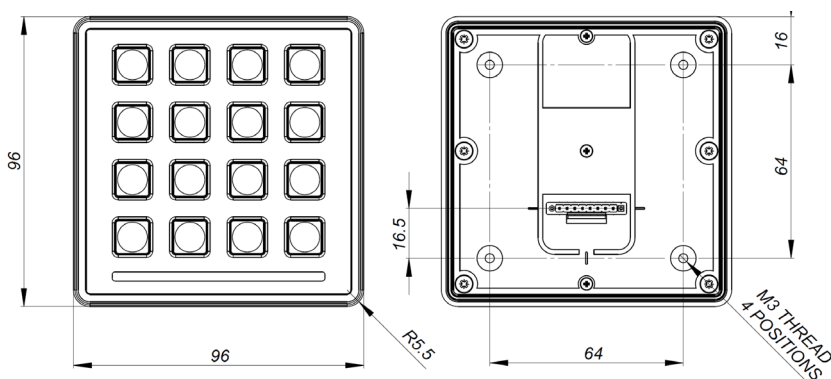
Front and Back View, 12 way



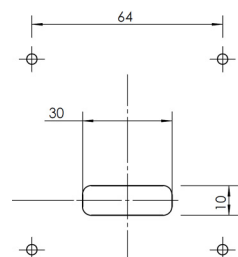
Panel Cutout : 12 way



Front and Back View, 16 way



Panel Cutout : 16 way



All panel dims in mm.  
Corner Rads all M3