# In a dirty world…

## *Storm*

*700/900 Series*

Storm 700/900 Series keypads are intended for use in wet or dirty environments. These modular keypads are designed to withstand the ingress of liquids and other contaminants; manufactured to survive the rigours of modern industrial use.

Keytop legend tiles can be configured to suit individual applications.

Storm 900 Series keypads feature selective dual colour illumination of keytops and keytop characters.

## *Storm*

*700/900 Series*

**Tough keypads for tough environments.**

# *Storm* **700/900 Series** – Sealed & Rugged Keypads

In demanding or hostile environments, a keyboard operator must be confident that data can be entered quickly and accurately. With this objective the keys move with a positive over-centre action ensuring rapid and reliable data entry even in the most extreme conditions.
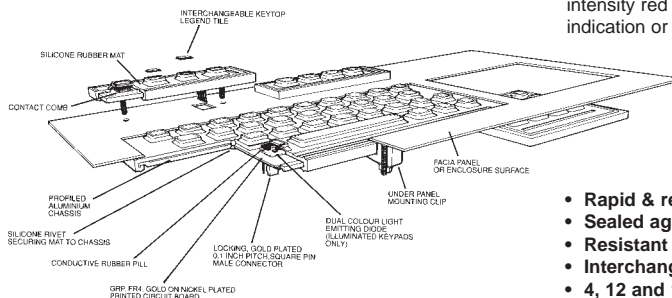
Storm 700 & 900 Series keypads are supplied in 4, 12, 16, and 36 key configurations. The keypad's unique modular design enables combinations of keypads to be used in the construction of more complex keypanel layouts. This design feature is especially useful when the keypads are used in conjunction with the Storm Universal Keypad Encoder.

The exceptional reliability of Storm keypads is achieved by an ingenious but simple method of construction. A moulded rubber mat is secured around a rigid circuit plate providing its own environmental seal. Storm keypads have been successfully tested after submersion under 1 metre of water for periods in excess of 1 hour. This was achieved without using gaskets or sealing compounds of any kind.

Interchangeable keytop legend tiles allow the selection of keytop graphics to suit any particular application. A comprehensive range of keytop legend tiles, are available from your local Storm supplier.

Storm keypads are available in non-illuminated (700 Series) and illuminated (900 Series) versions.

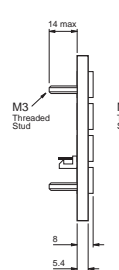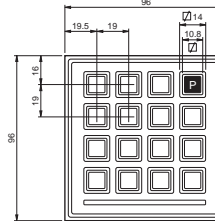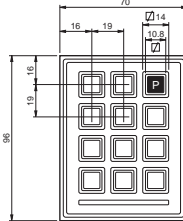**The keypads can be easily mounted to a flat surface or can be located beneath a suitable aperture in a fascia panel.**
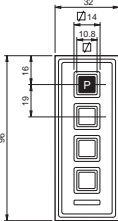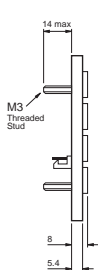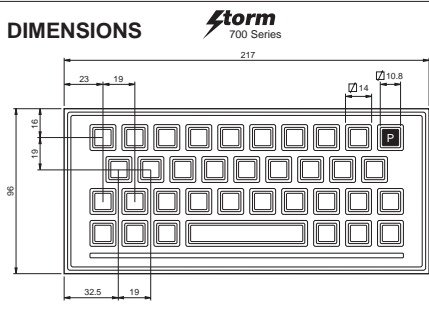


**STORM 900 Series (illuminated)**
**4, 12 and 16 key formats only**

Using the impressive refractive properties of silicone rubber, and the latest developments in surface mount technology, individual keytops can be illuminated by twin diode, two colour LEDs.

The keypad's surface can be lit with a low level green illumination. This provides clearly legible keytop graphics and a visual indication of the keypads operational boundaries. In addition, individual keytops can be selectively lit with a high intensity red LED providing positive status indication or software controlled "user prompts".

- **Rapid & reliable data entry**
- **Sealed against fluids, dust & corrosives**
- **Resistant to vibration & shock**
- **Interchangeable keytop legends**
- **4, 12 and 16 key formats in both series**
- **Compatible with the STORM keypad encoder**

## DIMENSIONS



Comprehensive dimensional, fixing and connection details are provided with each Storm 700 & 900 Series keypad.

A comprehensive range of interchangeable keytop legend tiles, for use with Storm 700 & 900 Series keypads, are availble from your local Storm supplier.

## SPECIFICATION & OPERATIONAL PERFORMANCE

### ELECTRICAL

| | |
|---|---|
| Contact Bounce | 5ms (max) |
| Contact Resistance | 100 ohm (max) |
| Insulation Resistance | 50 Mohms (min) at 480V DC |
| Breakdown Voltage (to case) | 500V AC (max 60 seconds) |
| Operating Voltage | 24V DC (max) |
| Operating Current | 50 mA (max) |
| LED Drive Current (900 Series only) | 20 mA typ   25mA (max) |
| LED Drive Voltage - Single Diode (900 Series only) | 3.3V typ |
| LED Drive Voltage - Twin Diode (900 Series only) | 2.2V typ |

### ENVIRONMENTAL

| | |
|---|---|
| Water Sealed | BS5490 Class IP67 / EC529 Class IP67 when panel mounted |
| Humidity | 90% RH at 40°C (104°F) - 10 day (max) - Non-condensing |
| Operational Temperature | 900 Series only: -25°C to +85°C (-13°F to +185°F) |
| | 700 Series only: -55°C to +125°C (-67°F to +257°F) |

### MECHANICAL

| | |
|---|---|
| Operational Life | 2 million cycles (min) |
| Keytop Travel | 1.5mm nominal |
| Actuation Force | 160gms typical |
| Sealing Torque | 0.14 - 0.16 Nm |
| Connector | Locking 0.1" pitch gold-plated square pin connector suitable for use with Molex 2695/6471 or 7720S series or similar female connectors |

### MATERIAL

| | |
|---|---|
| Keypad Surface | Engineering grade silicone rubber |
| Keypad chassis | Coated non-ferrous metal |
| Contact Circuit | Gold on nickel plated FR4 PCB |

## ACCESSORIES FOR USE WITH STORM 700/900 SERIES KEYPADS

| Item | Part Number | Description |
|---|---|---|
| STORM Keypad Encoder | 40000001 | Keypad interface for STORM 700/900 Series & K Range keypads. PC XT or AT, PS2 and ASCII RS232/432 data formats configurable via an 8 way DIL switch. |
| Legend Tile Set | 70X00101 90X00101 (X denotes type, "A to K") | **A:** 0 - 9, ←, →, ↑, ↓, *, #, +, -, ÷, =, ., X, AC, I/O, ENT, CE/C, SP. **B:** ←, →, ↑, ↓, ENT, PRINT, DEL, INS, CAP, ESC, CTRL, ALT, ON, OFF, \, /, LOCK, ⇑, ⇆, ⇓, $£, :, ;, ', ., ↵, SP. **D:** FI TO F12, £, $, ?, !, (, ), @, <, >, Fn, ", ', %, &, SP. **F:** 0 - 9, →,A - F, CE/C, ENT, OFF, *, #, +, -, ., blank, SP. **C:** "A TO Z" **E:** Blank **J:** French symbols **K:** German symbols |
| Under Panel Mounting Clips | 7004CL01 | 1 pair for 4 key keypad, 2 pairs for 12/16 key keypads & 3 pairs for 36 key keypad. |

Whilst every effort is made to ensure details are correct at time of print, specifications are subject to change without notice.

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