Storm

2000 Series Keypads

Robust keypads for harsh industrial use

- **Rapid, responsive and reliable data entry in wet, dirty or extreme conditions**

- **Vandal resistant (20J BS EN 60068-2-75: 1997)**

- **Weather, water and dust resistant (IP65)**

- **4 key, 12 key and 16 key formats**

- **Raised "home pip" on the "5" key**

- **Simple 'row and column' circuit matrix, terminated by a male, gold-plated, square pin, 0.1" (2.54mm) pitch connector with locking ramp**

- **Can be fixed to a flat surface or under panel mounted for a flush, low profile installation**
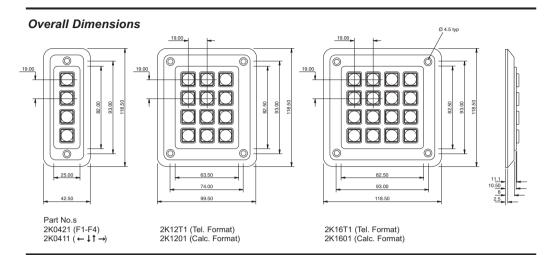
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2000 Series tough impact resistant keypads

Suitable for use in harsh industrial and exposed, outdoor environments. Typical applications include industrial process control, military equipment, instrumentation and access control. Constructed from an advanced super high impact polymer. These responsive keypads are built to survive.

Overall Dimensions

Part No.s
2K0421 (F1-F4)
2K0411 (← ↓↑ →)

2K12T1 (Tel. Format)
2K1201 (Calc. Format)

2K16T1 (Tel. Format)
2K1601 (Calc. Format)

Mounting & Connection Details

All dimensions are in mm

Panel Cut-out Details for Top Panel Mounting

Countersunk Fixing Screws *(Not Supplied)*
(Threads must be sealed to prevent water ingress)

Sealing Gasket *(Not supplied with 4000 series)*

Panel Cut-out Details for Under Panel Mounting

Sealing Gasket *(Not supplied with 4000 series)*

Connection Details for 4 Key Keypad

CONTACT CONNECTIONS
5 4 3 2 1
(As viewed from rear of keypad)

A 1
B
C
D
KEY LOCATION
(As viewed from front of keypad)

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

Connection Details for 12 Key Keypad

CONTACT CONNECTIONS
8 7 6 5 4 3 2 1
(As viewed from rear of keypad)

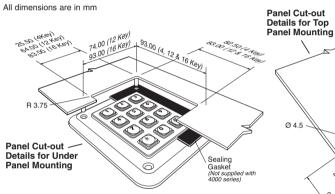A 1 2 3
B
C
D
KEY LOCATION
(As viewed from front of keypad)

CONTACT MATRIX	
CONNEC. 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
8 7 6 5 4 3 2 1
(As viewed from rear of keypad)

A 1 2 3 4
B
C
D
KEY LOCATION
(As viewed from front of keypad)

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

Electrical

Contact Bounce	**5ms (max)**
Contact Resistance	**100 ohms (max)**
Insulation Resistance	**50 Mohms (min)**
Breakdown Voltage	**500V AC (max 60 secs.)**
Operating Voltage	**24V DC (max)**
Operating Current	**50mA (max)**

Mechanical

Operational Life	**4 million cycles (min) per key**
Keytop Travel	**1.4mm nominal**
Actuation Force	**180gms nominal**
Connector	**0.1" pitch, gold plated square pin, male connector**

Environmental

Water / Dust Sealed	**IP65 (when mounted to suitable enclosure)**
Operational Temperature	**-25°C to +85°C (Dry)**

Material

Casing	**Super High Impact Polymer (mid grey)**
Keytops	**Super High Impact Polymer (mid grey)**
Keytop Legends	**Engraved**
Contact Circuit	**Gold on Nickel plated FR4**

Accessories

Item	Stock No.	Notes
PC Interface	4200-000[x]	RS232
Rear Casing Providing space for additional components or circuitry (12 key formats only)	RC12020[x]	Supplied complete with fixing hardware, sealing gaskets and fixing instructions.
Blank Keytops set of four	1K0000[x]	Supplied without keytop graphics. Suitable for engraving.
Privacy Shield Provides PIN / Entry Code security	1KFS020[x]	Supplied complete with fixing hardware, sealing gaskets and fixing instructions. 12 key only.

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

Designed & produced by
NIK Design
www.nikdesign.co.uk

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