

storm

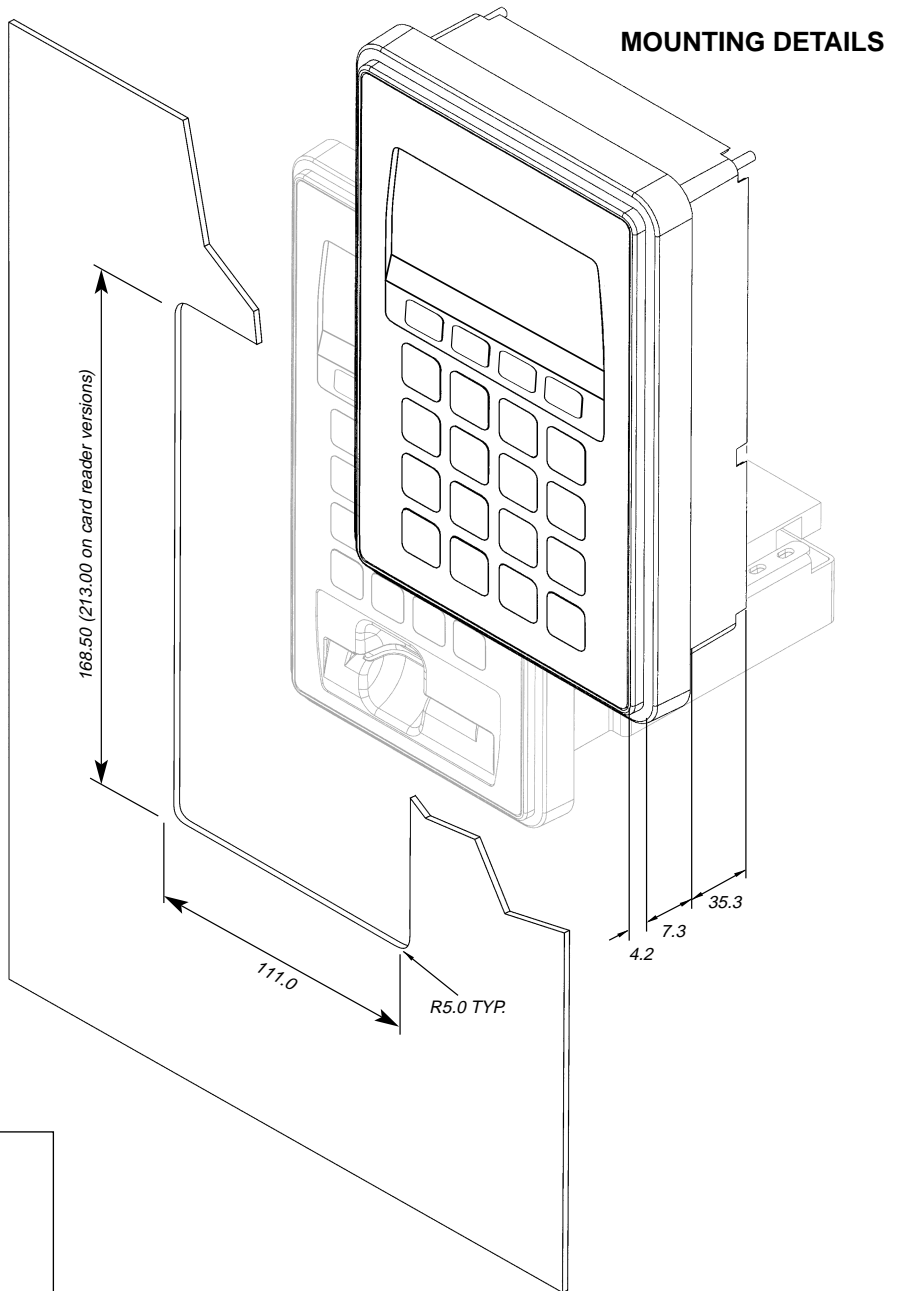
Integrated Keypad, Display & Card Reader Module

Integrated Keypads

Description	Order Code
Vandal resistant no display	FT1K050
Vandal resistant no display with card reader	FT1K055
Vandal resistant with display	FT1K080
Vandal resistant with display and card reader	FT1K085
Robust with display	FT4K090
Robust with display and card reader	FT4K095
Robust no display	FT4K100
Robust no display with card reader	FT4K105

Key layout on vandal resistant model

▲	▲	▲	▲
1	2	3	A
4	5	6	B
7	8	9	C
* CLR	0	# ENT	•



ACCESSORIES FOR STORM FINANCIAL TRANSACTION UNIT

Stock No.	DESCRIPTION
FT-LIT-01	FT Application Engineering Guide
FT-LIT-02	FT Character Display Datasheet
FTMK00	Mounting Kit (card reader version) Top mount requires 208.6 + 0.5mm x 108.5 + 0.5mm R4.3 Typ (in corners) Underpanel mount requires 213.0 + 0.5 x 111.0 + 0.5mm R5 Typ (in corners)
FTMK01	Mounting Kit (includes gaskets / brackets) Top mount requires 165.0 + 0.5 x 108.5 + 0.5mm R4.3 Typ (in corners) Under panel mount requires 168.5 + 0.5 x 111.0 + 0.5mm R5.0 Typ (in corners)
	GFX Keypad Accessories Enables custom configuration of keytop graphics and colour
GS000	Spare transparent keytops (set of 4) Fit once only
GSA0T2	Set A: 0 - 9, ←, →, ↑, ↓, *, #, +, -, ÷, =, .., X, AC, I/O, ENT, CE/C.
GSB0T2	Set B: ←, →, ↑, ↓, ENT, PRINT, DEL, INS, CAP, ESC, CTRL, ALT, ON, OFF, \, /, LOCK, ⏪, ⏩, \$E, ;, :, ,, ., ., .
GSC0T2	Set C: "A TO Z"
GSD0T2	Set D: FI TO F12, £, \$, ?, !, (,), @, <, >, Fn, ", ', %, &.
GSE0T2	Set E: Blank
GSF0T2	Set F: 0 - 9, →A - F, CE/C, ENT, OFF, *, #, +, -, ., blank.
GS0001	White colour tile set
GS0002	Grey colour tile set
GS0003	Red colour tile set
GS0004	Green colour tile set
GS0005	Blue colour tile set
GS0006	Yellow colour tile set

All dimensions in millimetres (mm). Full product specifications are available on request from your local Storm stockist. Storm keypads incorporate key switch technology protected by International Patents.

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

FT-XX-08KT - Iss1



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FM39602

Storm is a trademark of Keymat Technology Ltd

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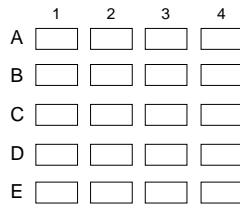
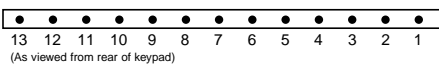
PRODUCT SPECIFICATIONS AND CONNECTION DETAILS

Connection Details for 20 Key Keypad

CONTACT MATRIX	
CONNECTOR PIN	ROW/ COLUMN
1	LED-Cathode*
2	Tamper In
3	B
4	C
5	1
6	2
7	3
8	4
9	E
10	D
11	A
12	Tamper Out
13	LED-Anode*

*For illuminated version only

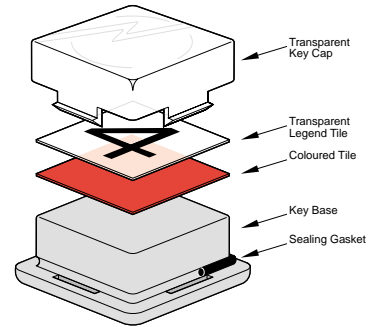
CONTACT CONNECTIONS



KEY LOCATION
(As viewed from front of keypad)

Keytop Assembly Instructions

GFX Integrated keypads are supplied with the key bases fitted. Each key position except the top row can be customised without dismantling the keypad. Keytop options can be selected from a library of standard symbols, characters and background colours. Alternatively, customised keytop graphics can be created using laser printed acetate film or screen printed polymer film.



The total thickness of the coloured tile and legend tile should not exceed 0.4mm. (Please note, paper is not recommended as the printed graphics may degrade if exposed to moisture/condensation.)

- 1 Orientate the graphics on the keypad correctly.
- 2 Load each key position in turn. First locate the legend tile into the transparent key cap, then locate the transparent coloured tile (see diagram).
- 3 Before snapping the transparent key cap, (including legend and coloured tile) into position, ensure that the legend tile's position, orientation and alignment are correct.
- 4 Snap keytop into place ensuring the top is fully seated.

Please note, if it is necessary to remove the transparent key cap a suitable tool or pliers should be used. Once removed the key cap should not be re-used; spare key caps and bases are available in sets of 4, part number GS0000.

KEYPAD SPECIFICATIONS

Vandal Resistant
Impact Resistant
IP Rating
Key Life (cycles)
Service Temp. (Non condensing)
Case Material
Case Colour
Keytops
Key Legends
Contact Materials
Contact Bounce
Contact Resistance
Insulation Resistance
Breakdown Voltage
Operating Voltage (contacts)
Operating Current (contacts)
Keytop Travel
Actuation Force
Connector Type

VANDAL RESISTANT

Yes
 Yes
 Up to IP67 (in a suitable enclosure)
 > 4 million
 -40° C to +75° C (keypad only)
 Super Impact polymer
 Black case / stainless front
 Chromed zinc
 Engraved and backfilled
 Carbon / gold
 5ms
 100 ohms (max)
 50 Mohms (min)
 500 V ac (60 secs)
 24 V dc (max)
 50mA (max)
 1.4 mm (nominal)
 180 grams (nominal)
 0.1" gold plated square pin with locking ramps

ROBUST

No
 No
 Up to IP54 (in a suitable enclosure)
 > 2 million
 -10° C to +75° C (keypad only)
 Super Impact polymer
 Black case / polycarbonate front
 GFX
 User defined
 Carbon / gold
 5ms
 100 ohms (max)
 50 Mohms (min)
 500 V ac (60 secs)
 24 V dc (max)
 50mA (max)
 1.4 mm (nominal)
 180 grams (nominal)
 0.1" gold plated square pin with locking ramps

CHARACTER DISPLAY (where specified) Type and Connections

Powertips 20 character x 4 line display type PC2004LRU-AEA-B
 Fitted with a single row of 16 0.1" gold plated square pins
 Service Temperature Range 0 °C to 50° C

ANTI TAMPER CIRCUIT

Operating Voltage
Operating Current
Circuit Resistance (normally closed)
Circuit Resistance (open)

24 V dc (max)
 10 mA (max)
 < 500 ohms
 > 5 Mohms if the PCB is seperated in any way from the housing