

# FCL Components Touch Panels

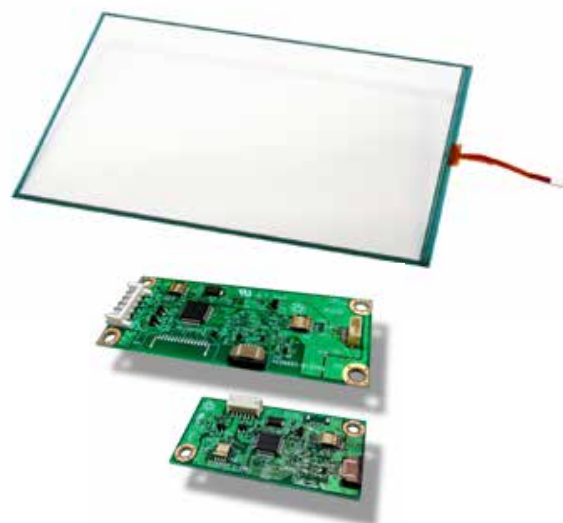
## Feather Touch - Long Life 4-Wire series

### FCL Components Resistive Touch Panel Specification

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#### Features

- Superior quality 4-wire resistive touch panels
  - Available in light input force types (min. 0.02N) or standard force type
  - Light input force with dual input gesture supports PCAP comparable user experience
    - Pinch, Zoom, Rotate, Swipe or Flick action detection by the application or operating system
  - Excellent specification and high quality panels for a wide range of applications
  - Pen/finger input support
  - 80% transparency typical
  - RoHS compliant
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- Applications
    - Kiosk, POS/ECR. FA medical equipment, amusement equipment



■ Specifications

|             | Item                            | Specification                                                                         | Note                                                                          |
|-------------|---------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
|             | Type                            | 4-wire resistive                                                                      |                                                                               |
|             | Input                           | Pen / finger                                                                          |                                                                               |
|             | Size (in)                       | 5.7, 7 (W), 8.4, 10.4, 10.1 (W), 12.1, 15, 19, 22 (W)                                 | W: wide                                                                       |
|             | Construction                    | Film / glass                                                                          |                                                                               |
|             | Hardness                        | Pencil hardness min. 2H                                                               |                                                                               |
| Mechanical  | Operating force                 | 0.02N min.<br>0.78N (19, 22W: 1.0N) max.                                              | R0.8 polyacetal resin pen /<br>R8 silicone rubber (hardness 60 degrees)       |
|             | Panel thickness                 | 1.4mm (15, 19, 22W: 2.1mm)                                                            |                                                                               |
|             | Glass thickness                 | 1.1mm (15, 19, 22W: 1.8mm)                                                            |                                                                               |
|             | Typing life                     | 100,000 words min.                                                                    | R0.8 polyacetal resin pen, writing force<br>2.45N                             |
|             | Input life                      | 10,000,000 times min.                                                                 | R120 silicon rubber (hardness 20 degree),<br>input force 2.45N, frequency 3Hz |
|             |                                 |                                                                                       |                                                                               |
| Optical     | Transparency                    | 80% typ.                                                                              |                                                                               |
|             | Haze                            | 6% typ. (non-glare)                                                                   |                                                                               |
|             | Rated voltage                   | 5VDC                                                                                  |                                                                               |
| Electrical  | Current consumption (reference) | 16mA typical (operate)<br>13mA typical (not operate)                                  | With our control board<br>FID-1850-160                                        |
|             | Insulation resistance           | 10MΩ min.                                                                             | At 25VDC                                                                      |
|             |                                 |                                                                                       |                                                                               |
| Environment | Operate temperature/humidity    | -5°C to +60°C<br>20%RH to 90%RH (wet bulb temperature max. 38°C,<br>no condensation)  | Please refer to Fig-1                                                         |
|             | Storage temperature/humidity    | -30°C to +70°C<br>10%RH to 90%RH (wet bulb temperature max. 38°C,<br>no condensation) | Please refer to fig-2                                                         |

■ Environment Data

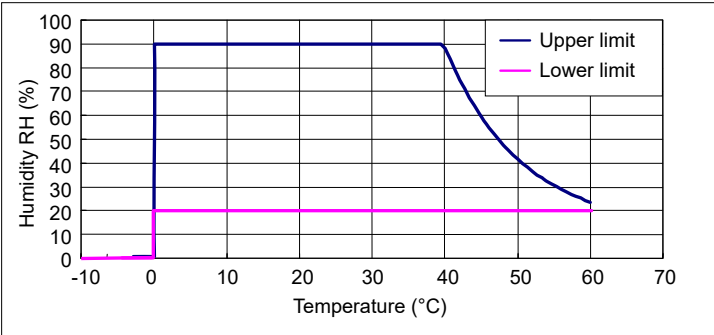


Fig-1 Operate temperature/humidity range

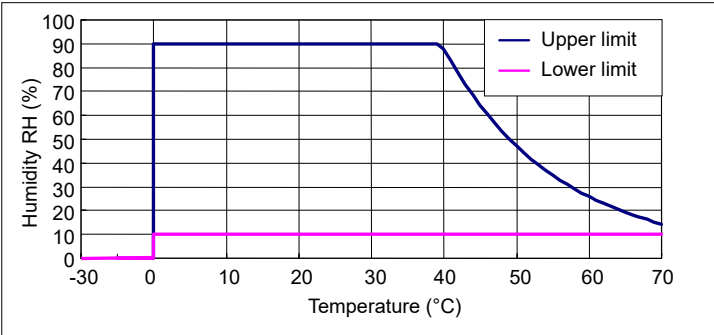


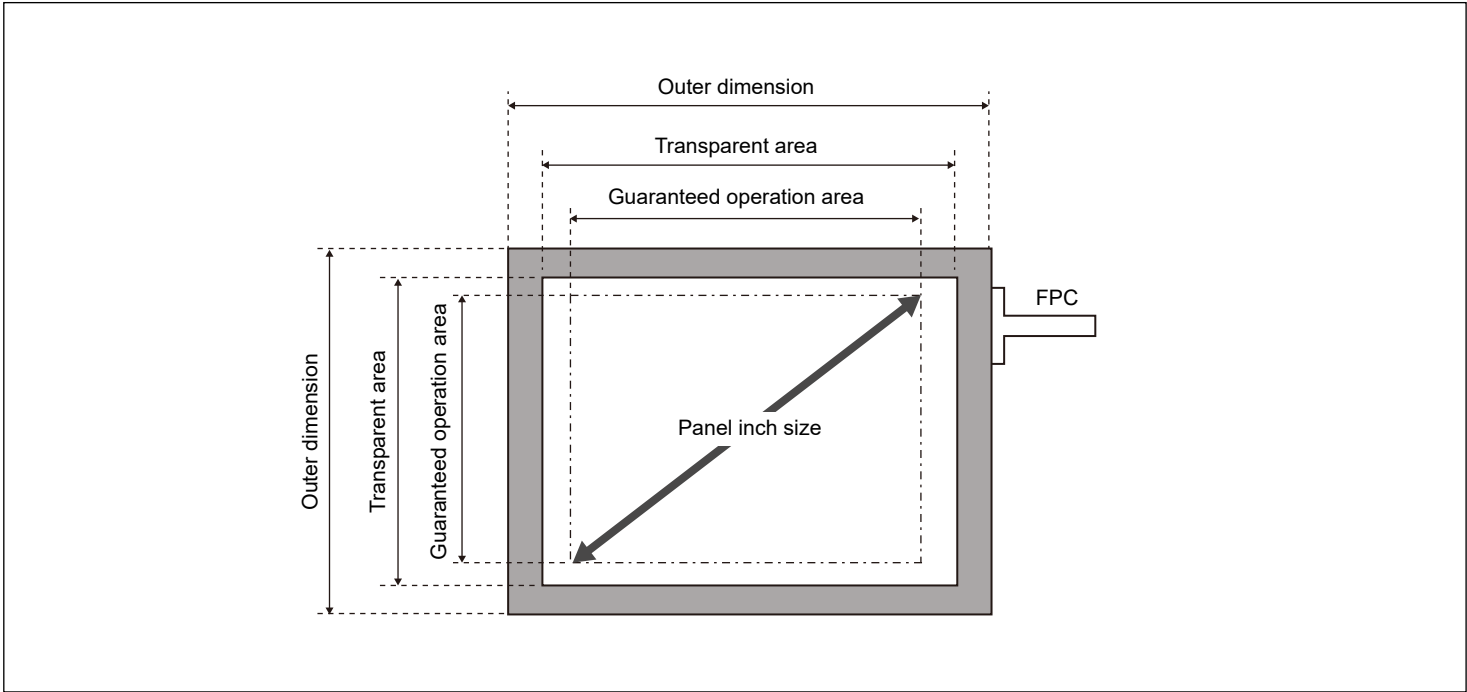
Fig-2 Storage temperature/humidity range

■ Feather Touch - Long Life 4-Wire Resistive Touch Panel Part Numbers

| Size (in)<br>(W: wide) | Part number      | Dimensions (mm) | Transparent area<br>(mm) | Guaranteed operation area<br>(mm) |
|------------------------|------------------|-----------------|--------------------------|-----------------------------------|
| 5.7                    | FID-1121-021-A05 | 125.8 x 98.8    | 119.2 x 89.4             | 113.2 x 86.4                      |
| 7 (W)                  | FID-1122-021-A07 | 168.8 x 107.7   | 159.4 x 97.4             | 153.4 x 94.4                      |
| 7 (W)                  | FID-1123-021-A07 | 170.0 x 108.6   | 162.4 x 98.6             | 156.4 x 93.6                      |
| 8.4                    | FID-1124-021-A08 | 188.9 x 141.7   | 176.0 x 133.5            | 170.0 x 129.5                     |
| 8.4                    | FID-1125-021-A08 | 187.9 x 149.3   | 175.9 x 133.3            | 169.9 x 129.3                     |
| 10.1 (W)               | FID-1131-021-A10 | 232.3 x 151.0   | 223.4 x 141.5            | 217.4 x 139.5                     |
| 10.1 (W)               | FID-1132-021-A10 | 239.5 x 139.5   | 229.0 x 131.5            | 225.0 x 125.5                     |
| 10.4                   | FID-1133-061-A10 | 228.2 x 175.4   | 216.6 x 164.6            | 211.2 x 158.4                     |
| 10.4                   | FID-1134-061-A10 | 228.0 x 179.0   | 216.0 x 163.0            | 212.0 x 157.0                     |
| 12.1                   | FID-1135-021-A12 | 263.0 x 205.5   | 251.0 x 189.5            | 245.0 x 185.5                     |
| 15                     | FID-1141-021-A15 | 328.0 x 252.0   | 309.0 x 233.0            | 305.0 x 227.0                     |
| 15                     | FID-1142-021-A15 | 328.2 x 255.0   | 311.0 x 234.2            | 304.8 x 229.0                     |
| 19                     | FID-1143-021-A19 | 398.0 x 322.7   | 382.9 x 307.7            | 377.3 x 300.7                     |
| 22 (W)                 | FID-1144-001-A22 | 491.7 x 318.1   | 479.8 x 303.1            | 474.8 x 297.1                     |

■ Notes: Custom panels with different sizes and full specifications are available - please contact your local Sales Representative or use the Contact Form

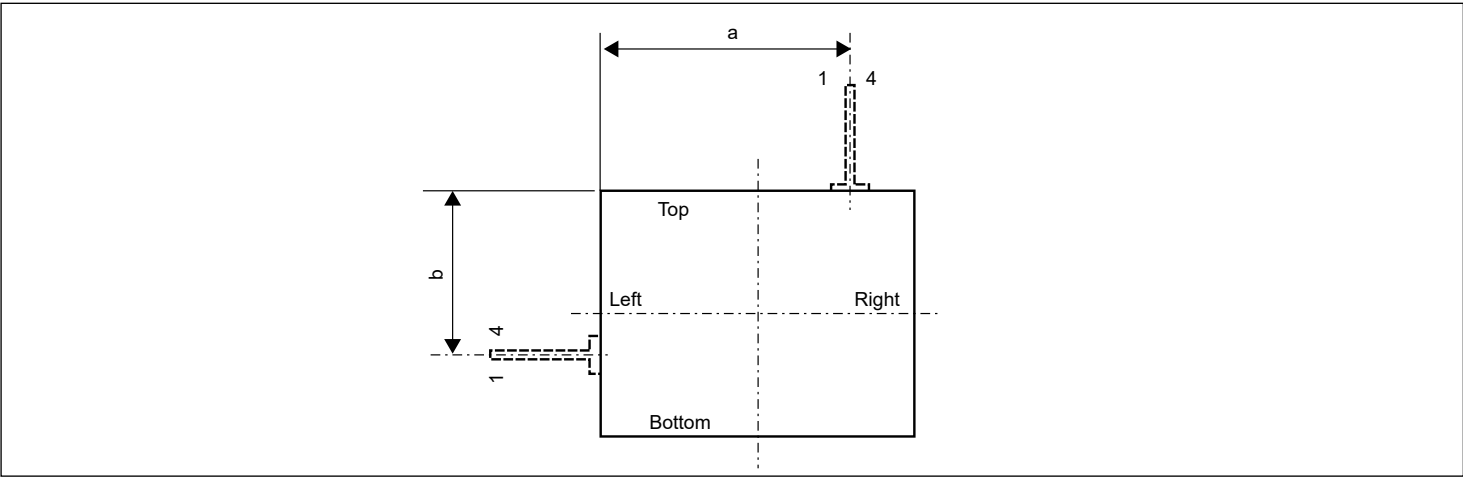
■ Dimensional Areas



FPC Position and Length

| Size (in)<br>(W: wide) | Part number      | FPC position | FPC length*1<br>(mm) | FPC length<br>(mm) | FPC terminal /signal<br>pattern*2 |
|------------------------|------------------|--------------|----------------------|--------------------|-----------------------------------|
| 5.7                    | FID-1121-021-A05 | Top          | a: 72.9              | 61                 | pattern 2                         |
| 7 (W)                  | FID-1122-021-A07 | Top          | a: 50.0              | 61                 | pattern 1                         |
| 7 (W)                  | FID-1123-021-A07 | Top          | a: 126.4             | 61                 | pattern 2                         |
| 8.4                    | FID-1124-021-A08 | Left         | b: 67.3              | 61                 | pattern 2                         |
| 8.4                    | FID-1125-021-A08 | Top          | a: 23.7              | 61                 | pattern 3                         |
| 10.1 (W)               | FID-1131-021-A10 | Top          | a: 136.3             | 75                 | pattern 2                         |
| 10.1 (W)               | FID-1132-021-A10 | Left         | b:76.3               | 75                 | pattern 2                         |
| 10.4                   | FID-1133-061-A10 | Left         | b: 87.7              | 75                 | pattern 2                         |
| 10.4                   | FID-1134-061-A10 | Top          | a: 47.7              | 75                 | pattern 3                         |
| 12.1                   | FID-1135-021-A12 | Top          | a: 57.7              | 75                 | pattern 3                         |
| 15                     | FID-1141-021-A15 | Left         | b: 41.0              | 120                | pattern 2                         |
| 15                     | FID-1142-021-A15 | Top          | a: 142.6             | 120                | pattern 3                         |
| 19                     | FID-1143-021-A19 | Left         | b: 202.7             | 120                | pattern 2                         |
| 22 (W)                 | FID-1144-001-A22 | Top          | a: 125.9             | 120                | pattern 2                         |

- Notes: \*1: FPC length: Please refer to the drawing below.  
\*2: FPC terminal /signal pattern: Please refer to the table below.



FPC Terminal Number and Signal Pattern

| Pattern 1    |                  | Pattern 2    |                  | Pattern 3    |                  |
|--------------|------------------|--------------|------------------|--------------|------------------|
| Terminal No. | Signal           | Terminal No. | Signal           | Terminal No. | Signal           |
| 1            | Right electrode  | 1            | Bottom electrode | 1            | Left electrode   |
| 2            | Bottom electrode | 2            | Left electrode   | 2            | Top electrode    |
| 3            | Left electrode   | 3            | Top electrode    | 3            | Right electrode  |
| 4            | Top electrode    | 4            | Right electrode  | 4            | Bottom electrode |

- Notes: Width of exit cable edge: 5.0mm  
Width of PCB side of exit cable: 15.0mm (22.0mm :19-, 22-inch)  
Connector for exit cable □SFW4R-1STAE1-LF with gold plate (FCI Japan)

## ■ Controller Boards

| Input Type                     | Part Number  | Gesture Function                                   | Output Interface                  | Dimensions (mm)   |
|--------------------------------|--------------|----------------------------------------------------|-----------------------------------|-------------------|
| Single input                   | FID-1850-170 | Not available                                      | Conforms to RS232C (asynchronous) | 75.0 x 30.0 x 8.5 |
|                                | FID-1850-150 | None/flick (switchable)                            | USB (full speed)                  | 75.0 x 30.0 x 8.5 |
| Single/dual input (switchable) | FID-1850-160 | Single: Flick<br>Dual: Flick, rotate, pinch in/out | USB (full speed)                  | 60.0 x 30.0 x 5.2 |

## ■ Control IC

| Input Type                                        | Part Number  | Gesture Function                                                   | Output Interface          | Dimensions (mm)                                       | Package |
|---------------------------------------------------|--------------|--------------------------------------------------------------------|---------------------------|-------------------------------------------------------|---------|
| Single/dual input (set by the peripheral circuit) | FID-1860-013 | Not available                                                      | Serial (asynchronous) I2C | 7.0 x 7.0 x 1.7 (excluding terminals)<br>48 pin LFQFP | Tray    |
|                                                   | FID-1860-014 | Single: None<br>Single: Flick<br>Dual: Flick, rotate, pinch in/out | USB (full speed)          | 7.0 x 7.0 x 1.7 (excluding terminals)<br>48 pin LFQFP | Tray    |

## ■ Stylus Pen

| Part Number    | Type     | Specifications                                                                                                                |
|----------------|----------|-------------------------------------------------------------------------------------------------------------------------------|
| N010-0557-T002 | Small    | Edge: R0.8 polyacetal resin, Tip load: Approx. 0.33N, Thickness: 5.4mm, Length: 110mm, Weight: Approx. 3g                     |
| N010-0557-T011 | Standard | Edge: R0.8 polyacetal resin, Tip load: Approx. 0.33N, Thickness: 8.0mm, Length: 140mm, Weight: Approx. 10g, Color: Light gray |

## ■ Driver Software

Please contact us.

## ■ RoHS

EU RoHS: Control boards use components which include lead exceed the threshold. These lead is subject to exclusion criteria of RoHS.

China RoHS (Measures for the Environmental Administration of the Control of Pollution by Electronic Information Products)

Control boards use components which include lead exceed the threshold. Please contact us about environmental protection use period

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