Overview
A film-glass construction resistive touch panel with light input load and flush surface structure. Decorative patterns are available, including multi-color graphics. Required input force is less than a half of conventional resistive touch panels.
The panel allows improved design of user’s products as well as offering light input force nearly identical to projected capacitive touch panels with benefit of secure resistive input method.

Features
■ Flush surface design
Maintains clear flat input surface of customer’s products and supports waterproof performance. Aperture and other glass finishing features are available. FID-1300 series utilizes 4-wire resistive method, and FID-1520 series utilizes 5-wire resistive method.

■ Light input load
We achieve reliable input and smooth slide/flick operations with less than half the input force of conventional touch panels. Direct print on the top ITO film and eliminating a cover film helps to lower input force.

■ Long life
FID-1300 series (4-wire) offers minimum 1 million touches in a single location.
FID-1520 (5-wire) offers minimum 10 million touches.

■ Various input methods
Operable with fingers, gloved fingers, wet fingers, pen, stylus pen.

■ 2-point input, enlarge/shrink gesture available
2-point input, enlarge/shrink, rotation (FID-1300 series only) is available with Dual Touch Control board.

■ Custom design available
Customization is available on anti fingerprint, anti reflection, glass thickness, total light transmittance, haze, FPC placement and length.

■ RoHS compliant

■ Major applications
- Mobile terminals
- Operation panel on vehicle navigation system, POS/ECR, multifunction copier, white goods
- Industrial and medical terminals
## Specifications

<table>
<thead>
<tr>
<th>Item</th>
<th>Specifications</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Series</td>
<td>FID-1300</td>
<td>FID-1520</td>
</tr>
<tr>
<td>Type</td>
<td>4-wire resistive</td>
<td>5-wire resistive</td>
</tr>
<tr>
<td>Input method</td>
<td>Pen and finger</td>
<td></td>
</tr>
<tr>
<td>Hardness</td>
<td>Pencil hardness min. 3H</td>
<td>JIS K 5400</td>
</tr>
<tr>
<td>Construction</td>
<td>Film-Glass</td>
<td></td>
</tr>
<tr>
<td>Operating force</td>
<td>Minimum</td>
<td>0.02N</td>
</tr>
<tr>
<td></td>
<td>Typical</td>
<td>0.45N</td>
</tr>
<tr>
<td>Typing life</td>
<td>100,000 words min.</td>
<td>1,000,000 words min.</td>
</tr>
<tr>
<td>Input life</td>
<td>1,000,000 times min.</td>
<td>10,000,000 times min.</td>
</tr>
<tr>
<td>Electrical rated voltage</td>
<td>5.0 VDC±10%</td>
<td></td>
</tr>
<tr>
<td>Insulation resistance</td>
<td>10MΩ</td>
<td>at 25VDC</td>
</tr>
<tr>
<td>Environmental conditions*</td>
<td>Operating temperature/humidity</td>
<td>-5° to +60°C (20%RH to 90%RH)</td>
</tr>
<tr>
<td></td>
<td>Storage temperature/humidity</td>
<td>-30° to +70°C (10%RH to 90%RH)</td>
</tr>
</tbody>
</table>

* Wet bulb temperature max. 38°C, no condensation.

## Control board and IC

<table>
<thead>
<tr>
<th>Type</th>
<th>Part Number</th>
<th>Output Interface</th>
<th>Dimensions (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control board (for single input)</td>
<td>N16B-0558-B760 (for FID-1520)</td>
<td>USB</td>
<td>95.0 x 30.0 x 4.9</td>
</tr>
<tr>
<td></td>
<td>NC01850-B070RS (for FID-1300)</td>
<td>Asynchronous Serial</td>
<td>75.0 x 30.0 x 5.9</td>
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<tr>
<td></td>
<td>NC01850-B010RS (for FID-1300)</td>
<td>USB</td>
<td>75.0 x 30.0 x 7.4</td>
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<tr>
<td>Control IC (for single input)</td>
<td>NC41120-0021 (for FID-1520)</td>
<td>USB</td>
<td>9.0 x 9.0 x 1.7 48 pin SOFP</td>
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<tr>
<td></td>
<td>NC41120-0036 (for FID-1300)</td>
<td>Asynchronous Serial</td>
<td>9.0 x 9.0 x 1.7 48 pin SOFP</td>
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<tr>
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<td>NC41120-0051 (for FID-1300)</td>
<td>USB</td>
<td>9.0 x 9.0 x 1.7 48 pin SOFP</td>
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<tr>
<td>Control board (for Dual Touch)</td>
<td>FID-1850-120 (for FID-1300)</td>
<td>USB</td>
<td>60.0 x 30.0 x 4.9</td>
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<tr>
<td>Control IC (for Dual Touch)</td>
<td>FID-1860-005 (for FID-1300)</td>
<td>USB</td>
<td>9.0 x 9.0 x 1.7 48 pin SOFP</td>
</tr>
</tbody>
</table>

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