Environment Resistant Type
Optical / Electrical Combined Connectors

FSE Series

OUTLINE

- FSE connector is mobile phone base stations, computer information proven connection is waterproof connector outdoor surveillance cameras.

FEATURE

- Locking-with-one-touch system
  It has erroneous-engagement prevention mechanism including five positioning keys at the engagement section. Insert the connector, turn the coupling clockwise until a click sounds, which means that secure engagement has been attained.

- Waterproof (oil-resistant) and dust-resistant design (IP67)
  Receptacle has an O ring, so once it is mated with a plug, the mating section prevents perfectly invasion of water drops, cutting oil and dusts.
  The cable-connection side of plug has a cable cramp with rubber bushing meeting the requirement for waterproofness.

- Combined optical and electric arrangement.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Structure</th>
<th>Number of Pin</th>
<th>Optical Fiber: 1 to 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lock Type</td>
<td>Bayonet</td>
</tr>
<tr>
<td>Environmental</td>
<td>Operating Temperature</td>
<td>−40°C to +85°C</td>
</tr>
<tr>
<td>Performance</td>
<td>Water Proof</td>
<td>IP68 (Water Depth 1m, 10 days)</td>
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<tr>
<td></td>
<td>Salt Spray</td>
<td>960 hours</td>
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<tr>
<td>Optical</td>
<td>Insertion Loss</td>
<td>SM: 0.5dB Max.</td>
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<tr>
<td>Performance</td>
<td>Return Loss</td>
<td>40dB Min.</td>
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<tr>
<td>Electrical</td>
<td>Applicable Cable Size</td>
<td>AWG16 Max.</td>
</tr>
<tr>
<td>Performance</td>
<td>Dielectric Withstand Voltage</td>
<td>1500V DC</td>
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<tr>
<td></td>
<td>Insulation Resistance</td>
<td>1000Ω Min.</td>
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<tr>
<td></td>
<td>Contact Resistance</td>
<td>10MΩ Max.</td>
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<tr>
<td>Mechanical</td>
<td>Mating Durability</td>
<td>500</td>
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<tr>
<td>Performance</td>
<td>Cable Retention Force</td>
<td>300 to 1000N</td>
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<tr>
<td></td>
<td>Vibration</td>
<td>10 to 500Hz</td>
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<tr>
<td></td>
<td>Shock</td>
<td>100G</td>
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</table>

Specifications and/or dimensions in this catalogue are subject to change without notice.
Your catalogue checking the latest specifications with our drawings would be highly appreciated.

http://www.ddknet.co.jp
FSE Series

Plug Connector

FSE-14P-220-12F-D

Shell Size
14 : 14 Size
20 : 20 Size

Connector Style
P : Plug Connector

No. of Fibers
0 〜 8

No. of Electric
0 〜 8

Electric wire size
0 : AWG16
(WG 16 Max. Please consult us.)

TM Material
F : FRP
Omit : Steel cable

TM Dia.
0 : φ 0.9
1 : φ 1.2
2 : φ 1.6
3 : φ 2.0

Bushing bore
1 : φ 10.0 ( # 20 Shell)
2 : φ 10.5 ( # 14 Shell)
4 : φ 12.0 ( # 14 Shell)
5 : φ 13.0 ( # 20 Shell)
7 : φ 16.0 ( # 20 Shell)
8 : φ 17.0 ( # 20 Shell)

<table>
<thead>
<tr>
<th>Shell Size</th>
<th>Part Number</th>
<th>Optical / Electric</th>
<th>Bushing</th>
<th>TM Dia.</th>
<th>TM Material</th>
<th>φ A</th>
<th>B</th>
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</thead>
<tbody>
<tr>
<td>14</td>
<td>FSE-14P-20-2</td>
<td>2/0</td>
<td>φ 10.0</td>
<td>φ 0.9</td>
<td>Steel wire</td>
<td>35.9</td>
<td>100</td>
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<td></td>
<td>FSE-14P-220-2</td>
<td>2/2</td>
<td>φ 12.0</td>
<td>φ 0.9</td>
<td>FRP</td>
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<td></td>
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<tr>
<td>20</td>
<td>FSE-20P-80-1</td>
<td>8/0</td>
<td>φ 10.0</td>
<td>φ 0.9</td>
<td>Steel wire</td>
<td>40.6</td>
<td>110</td>
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<tr>
<td></td>
<td>FSE-20P-230-5</td>
<td>2/3</td>
<td>φ 13.0</td>
<td>φ 0.9</td>
<td>FRP</td>
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<td></td>
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</tbody>
</table>

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Receptacle

Shell Size
14: 14 Size
20: 20 Size

Connector Style
R: Receptacle

No. of Fibers
0 ~ 8

No. of Electric
0 ~ 8

Shape of flange style

Circular

Rectangular

Bulk Head

Optical fiber cord
1: φ 0.9
2: φ 2.0

Flange Style
1: Rectangular
2: Circular
3: Bulk head (# 14 Correspondence)

Cap
1: Rubber Cap
2: Metal Cap

Electric wire size
0: AWG16
(AWG16 min Please talk.)

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