1. SPECIFICATION DISTRIBUTION
No restrictions for issue

2. SCOPE
This specification contains the application notes for the 9175, 9176, and 9177 IDC connectors.

3. RELATED DOCUMENTS
- 00-9175-00X-00X-X06 - STANDARD IDC CONNECTOR 26-28AWG
- 00-9176-00X-0XX-X06 - STANDARD IDC CONNECTOR 18-24AWG
- 60/70-9176-001-5XX-XXX - SINGLE CONTACT IDC 18-24AWG
- 60/70-9176-001-4XX-XXX – SINGLE CONTACT IDC 22-28AWG
- 00-9177-00X-0XX-X06 - STANDARD IDC CONNECTOR 14-20AWG

Note: The connectors in the product series are available in standard black colour (white and other colours are special order). The colours used in this document are for illustration purposes only.

4. 9176 SINGLE CONTACT IDC
4.1. 9176 SINGLE CONTACT COMPONENTS
Available as a single contact for 18AWG to 28AWG wires.
- 9176-400 standard cap and tooling for insulation diameters 0.75mm to 1.50mm.
- 9176-500 standard cap and tooling for insulation diameters 1.10mm to 1.60mm and 1.60mm to 2.10mm.
The plastic cap is optional.

4.2. 9176 SINGLE CONTACTS - UL REQUIREMENTS FOR PAD SPACING
UL approval based on 3.2mm gap between pads.
Minimum contact centre spacing 9176-400 contacts 7.1mm.
Minimum contact centre spacing 9176-500 contacts 7.5mm.
For non-UL applications the gap may be reduced at the customers discretion depending on the voltage applied.

4.3. 9176 SINGLE CONTACT IDC METHOD – WITH CAP – NO TOOLS (FLAT ROCK TOOLING)

1. Cut and locate wire to cap slot
2. Push wire into cap slot (slot grips wire)
3. Locate pre-loaded wire/cap to IDC contact
4. Push home cap to be flush with board surface using flat rock tooling in hand/air press

Please note that the PCB should be supported directly under the wires being terminated.
4.4. 9176 SINGLE CONTACT IDC – WITH CAP – WIRE INSERTION ASSIST TOOLS

Universal Handle

Wire/Insertion support tool insert
One tool supports IDC wire insertion block for all sizes of wire
Select tool for –400 or –500 series

4.5. 9176 SINGLE CONTACT IDC METHOD – WITH CAP – WITH TOOL ASSIST

Wire to be flush with or proud of moulding

1. Cut and locate wire to cap slot
2. Push wire into cap slot (slot grips wire)
3. Locate cap/wire sub assy into support tool
4. Align tool/cap to contact
5. Push home cap to be flush with board surface
6. Remove tool

Typical insertion force is approximately 175N per wire for -400 series and 225N per wire for -500 series. This is dependent on the wire gauge, conductor strands and insulation material.

Please note that the PCB should be supported directly under the wires being terminated.

4.6. 9176 SINGLE CONTACT IDC – CONTACT ONLY – WIRE INSERTION TOOLS

Plastic termination tool for low-medium volumes (metal versions available for higher volume)
To suit various insulation diameters up to 2.1mm for 18AWG to 28AWG wires
Select tool for –400 or –500 series

Universal Handle
4.7. 9176 SINGLE CONTACT IDC METHOD – CONTACT ONLY

1. Locate wire to top of contact
2. Locate tool to wire and contact
3. Push home tool
4. Remove tool

Typical insertion force is approximately 175N per wire for -400 series and 225N per wire for -500 series. This is dependent on the wire gauge, conductor strands and insulation material.

Please note that the PCB should be supported directly under the wires being terminated.