SINGLE TINE IDC
THRU-HOLE & SMT 12-24 AWG
201-01-142

1. SPECIFICATION DISTRIBUTION

No restrictions for issue

2. SCOPE

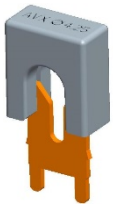
This specification contains the application notes for the 9176-600, 9176-650 and 9177-600 series IDC connectors.

3. PRODUCTS

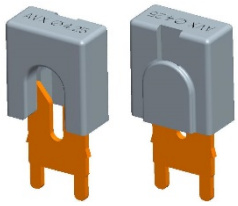
00-9176-01_600S – IDC connector 18-24AWG – PTH mount _ see section 7
00-9176-01_650S – IDC connector 18-24AWG – SMT mount _ see section 8
00-9177-01_600S - IDC connector 12-18AWG – PTH mount - see section 4
70-9177-001-6XX-006 – IDC contact 12-18AWG – PTH mount - see section 5
60-9177-001-6XX-XXX – IDC cap – up to 4.25mm diameter insulation – see section 6

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

4. 00-9177-001-6XX-XX6 CONNECTOR



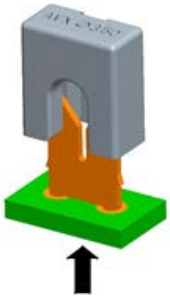
Through Wire



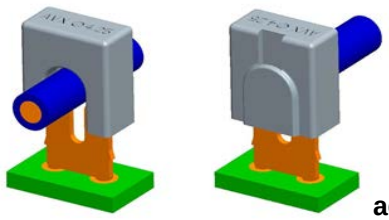
Wire Stop

Connector available as a single part in 4 sizes for 12AWG, 14AWG, 16AWG and 18AWG wires. Through wire allows complete flexibility to position the connector anywhere on a wire. Wire stop caps form a stop face for the wire end and protect the wire end after assembly

4.1. WIRE ASSEMBLY PROCESS – CONNECTOR

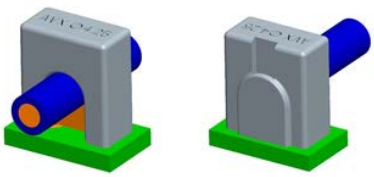


1. It is important to support the underside of the PCB during the assembly procedure.

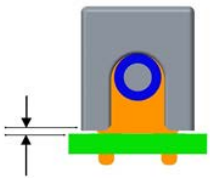


Wire against stop

2. The wire is pushed through the gap between the cap and contact. On wire stop style connectors check that the wire is against the internal stop face.



Max gap 0.30mm



3. The cap is then pushed down to the PCB. It is recommended to use a hand press with a flat bottomed (flat rock) tool. Typical insertion forces are between 200N to 400N depending on wire type and size.

5. 70-9177-001-6XX-006 – CONTACT

Contact available as a single part in 4 sizes for 12AWG, 14AWG, 16AWG and 18AWG wires.

5.1. WIRE INSERTION TOOL

06-9177-7021-01-000
3.50 to 4.75 insulation

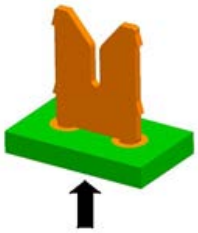
06-9177-7021-02-000
2.75 to 3.50 insulation

06-9177-7021-03-000
2.75 max insulation

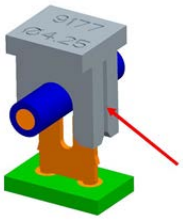
The tools are required when no cap is used for the wire termination.

Three tools available depending on wire insulation diameter, use of the correct size will ensure the correct position of the wire in the contact after assembly.

5.2. WIRE ASSEMBLY PROCESS – CONTACT

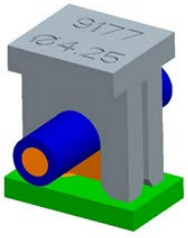


1. It is important to support the underside of the PCB during the assembly procedure.



Tool slot fits contact freely

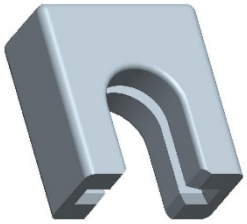
2. The wire is placed over the slot and the tool loaded onto the contact, the tool slots should run freely over the contact.



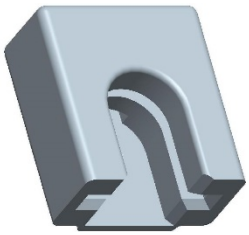
3. The tool is then pushed down to the PCB. It is recommended to use a press with a flat bottomed (flat rock) tool. Typical insertion forces are 250N to 350N. Typical insertion forces are between 200N to 400N depending on wire type and size.

Remove tool and check wire is fully inserted.

6. 60-9177-001-6XX-XXX – CAP



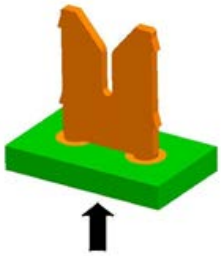
60-9177-001-6XX-X00
Through wire cap



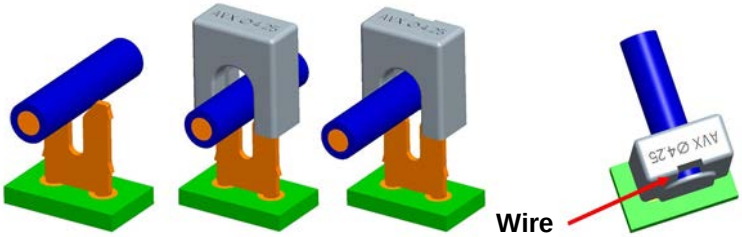
60-9177-001-6XX-X99
Wire stop cap

Three cap sizes are available depending on wire insulation diameter, use of the correct size will ensure the correct position of the wire in the contact after assembly. Caps also available in through wire and wire stop styles.

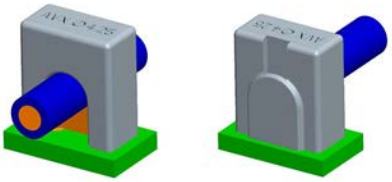
6.1. WIRE ASSEMBLY USING LOOSE CAP



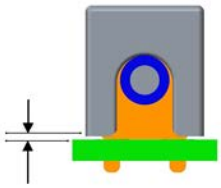
1. It is important to support the underside of the PCB during the assembly procedure.



2. The wire is placed over the slot and the cap loaded onto the contact. On wire stop style caps check that the wire is against the internal stop face.

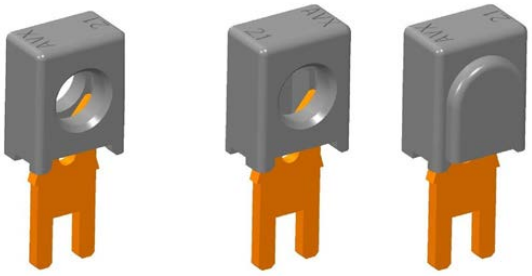


Max gap 0.30mm



3. The cap is then pushed down to the PCB. It is recommended to use a press with a flat bottomed (flat rock) tool. Typical insertion forces are between 200N to 400N depending on wire type and size.

7. 00-9176-001-60X-XX6 PTH CONNECTOR

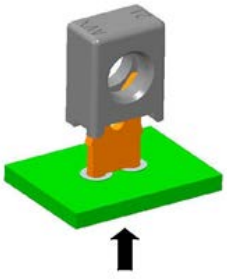


Through Wire Wire Stop

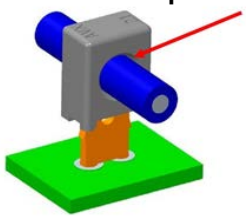
Connector available as a single part in 4 sizes for 18AWG, 20AWG, 22AWG and 24AWG wires. Through wire allows complete flexibility to position the connector anywhere on a wire. Wire stop caps form a stop face for the wire end and protect the wire end after assembly.

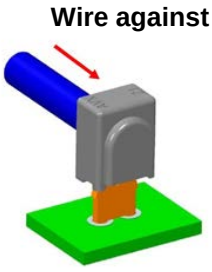
9176-600 connectors are not designed to be re-worked in normal use.

7.1. WIRE ASSEMBLY PROCESS – CONNECTOR

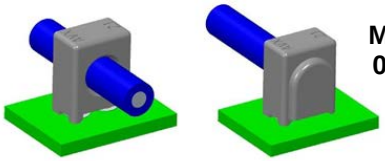


1. It is important to support the underside of the PCB during the assembly procedure.

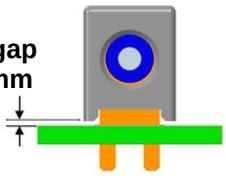




2. The wire is pushed through the gap between the cap and contact. On wire stop style connectors check that the wire is against the internal stop face.

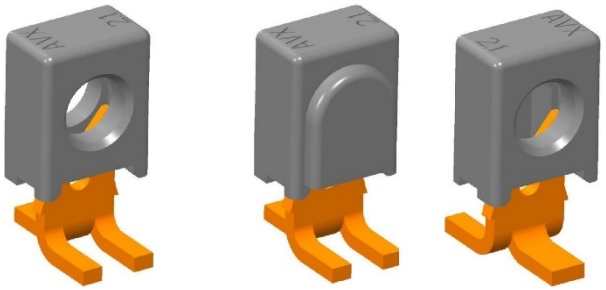


Max gap 0.15mm



3. The cap is then pushed down to the PCB. It is recommended to use a hand press with a flat bottomed (flat rock) tool. Typical insertion forces are between 200N to 300N depending on wire type and size.

8. 00-9176-001-65X-XX6 SMT CONNECTOR

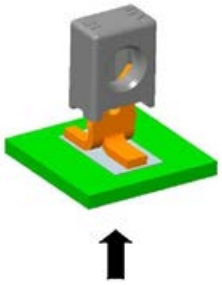


Through Wire Wire Stop

Connector available as a single part in 4 sizes for 18AWG, 20AWG, 22AWG and 24AWG wires. Through wire allows complete flexibility to position the connector anywhere on a wire. Wire stop caps form a stop face for the wire end and protect the wire end after assembly.

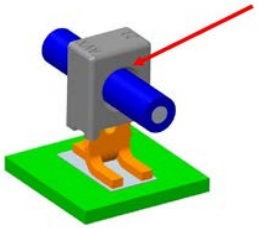
9176-600 connectors are not designed to be re-worked in normal use.

8.1. WIRE ASSEMBLY PROCESS – CONNECTOR

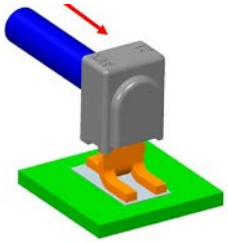


1. It is important to support the underside of the PCB during the assembly procedure.

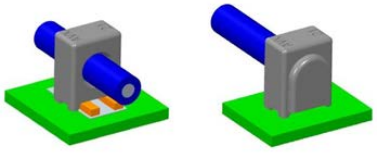
Wire to be flush with or proud of moulding



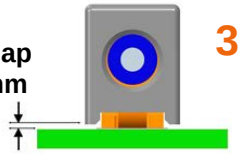
Wire against stop



2. The wire is pushed through the gap between the cap and contact. On wire stop style connectors check that the wire is against the internal stop face.

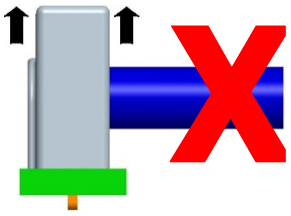


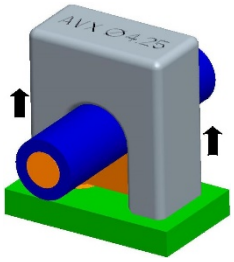
Max gap 0.15mm



3. The cap is then pushed down to the PCB. It is recommended to use a hand press with a flat bottomed (flat rock) tool. Typical insertion forces are between 200N to 300N depending on wire type and size.

9. CAP/WIRE REMOVAL





- To remove cap ease the cap upwards using pliers or suitable grip tools.
- Do not allow cap to rock, this may damage the contact termination
  .
- Do not pull off the cap using the wire, this could damage the contact.

Note that the cap cannot be re-used due to damage to the retention features, a new cap should be used for re-termination.