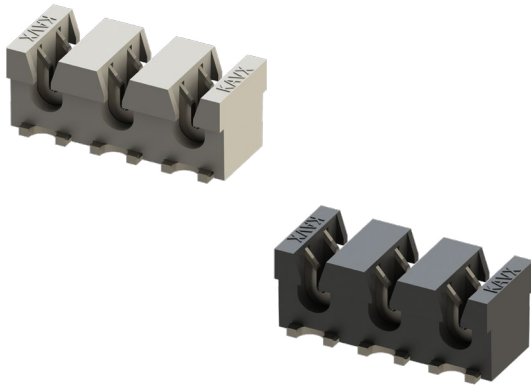


# STANDARD IDC 18-24 AWG: 9176-000



## General Information



The 917X Series Surface Mount Insulation Displacement Connector (IDC) is designed for the harsh automotive and industrial markets to connect individual wires directly to a PCB from 14 AWG to 28 AWG. This industry proven contact system has been tested to automotive levels of shock, vibration and temperature cycling to prove its reliability and ruggedness. The simplicity of inserting a wire into the connector with a small tool allows a wide range of devices to be connected to the PCB without soldering. In SSL applications in particular, these connectors are used to bring power and signal to the PCB or to daisy-chain multiple boards into a long string. While the IDC contact provides a gas-tight connection to the conductor of the wire, the housing is designed to grip the insulation of the wire to provide positive strain relief even under the harshest conditions. In the event of a repair, the wires can be removed and replaced up to three times.

The 9176 Series accepts 18 AWG to 24 AWG wires with insulation diameters ranging from 1.1 mm to 2.1 mm. These dual contact connectors support a 10 amp current rating with two large SMT solder tails per wire for maximum PCB stability. Available in 1p-3p configurations, these connectors can be end-stacked for higher pin counts. The 9176 series is also available with optional locking strain relief caps that act as a termination tool in high vibration applications.

### APPLICATIONS

- Connecting discrete wire components directly to the PCB
- Bringing power and signals onto a PCB
- Daisy chaining PCB's together to create a continuous string of boards
- Application Notes: Refer to 201-01-124
- Product Specification: Refer to 201-01-106

### FEATURES AND BENEFITS

- IDC contact provides a gas-tight connection to the PCB for long term reliability
- Connector housing captures the wire insulation for positive strain relief
- Tested to various levels on shock, vibration and temperature cycling for reliability
- Low and high volume assembly tools to match production volumes
- Reduced total applied cost versus solder or crimp processes
- Optional thru and end caps lock in place to provide maximum strain relief
- High temperature insulator capable to 260°C reflow soldering processes

### ELECTRICAL

- Current Rating: 10 Amp / Contact
- Voltage Rating: 300 VAC (RMS) or DC Equivalent

### ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40C to +70C

### MECHANICAL

- Insulator Material: Nylon 46: UL94V0
- Contact Material: Phosphor Bronze
- Plating: Tin over Nickel
- Durability: 3 Cycles

### HOW TO ORDER

**00** Prefix  
**9176** Series  
**00X** Number of Ways  
 001 = 1  
 002 = 2  
 003 = 3

**OXX** Wire Gauge Size

Code	Accepted Wire Gauge	Wire Insulation	Cap Code Pages 21-22
001	18 Gauge Stranded	Ø 1.6-2.1	021
011	20 Gauge Solid or Stranded	Ø 1.6-2.1	021
022	22 Gauge Solid or Stranded	Ø 1.1-1.6	016
032	24 Gauge Solid or Stranded	Ø 1.1-1.6	016

**X** Insulator Color  
 All Sizes  
 9 = UL White (Standard)  
 8 = UL Black (Special Order)

One Way Only (Special Order)  
 2 = UL Brown  
 3 = UL Blue  
 4 = UL Yellow  
 5 = UL Red  
 6 = UL Green  
 7 = UL Orange

**06** Plating Option  
 6 = Pure Tin all over



**SALES DRAWINGS**  
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Safety Standards: UL 1977-File #E90723, CSA C22.2 NO. 182.3

# STANDARD IDC 18-24 AWG: 9176-000



## General Information

### CONNECTOR/TOOLING PART NUMBER MATRIX

SERIES 9176 IDC					HAND INSERTION TOOLING*			ACCESSORY CAPS	
AWG	Wire Insulation	Positions	Color	Part Number	Plastic (medium volume)	Metal (high volume)	Mass Termination	Though Wire	Wire Stop
18	Ø 1.6 - 2.1	1p	Black	009176001001806	069176701601000	069176701701000	069176701701001	609176001021000	609176001021099
18	Ø 1.6 - 2.1	1p	White	009176001001906	069176701601000	069176701701000	069176701701001	609176001021100	609176001021199
18	Ø 1.6 - 2.1	2p	Black	009176002001806	069176701601000	069176701701000	069176701701002	609176002021000	609176002021099
18	Ø 1.6 - 2.1	2p	White	009176002001906	069176701601000	069176701701000	069176701701002	609176002021100	609176002021199
18	Ø 1.6 - 2.1	3p	Black	009176003001806	069176701601000	069176701701000	069176701701003	609176003021000	609176003021099
18	Ø 1.6 - 2.1	3p	White	009176003001906	069176701601000	069176701701000	069176701701003	609176003021100	609176003021199
20	Ø 1.6 - 2.1	1p	Black	009176001011806	069176701601000	069176701701000	069176701701001	609176001021000	609176001021099
20	Ø 1.6 - 2.1	1p	White	009176001011906	069176701601000	069176701701000	069176701701001	609176001021100	609176001021199
20	Ø 1.6 - 2.1	2p	Black	009176002011806	069176701601000	069176701701000	069176701701002	609176002021000	609176002021099
20	Ø 1.6 - 2.1	2p	White	009176002011906	069176701601000	069176701701000	069176701701002	609176002021100	609176002021199
20	Ø 1.6 - 2.1	3p	Black	009176003011806	069176701601000	069176701701000	069176701701003	609176003021000	609176003021099
20	Ø 1.6 - 2.1	3p	White	009176003011906	069176701601000	069176701701000	069176701701003	609176003021100	609176003021199
22	Ø 1.1 - 1.6	1p	Black	009176001022806	069176701602000	069176701702000	069176701701001	609176001016000	609176001016099
22	Ø 1.1 - 1.6	1p	White	009176001022906	069176701602000	069176701702000	069176701701001	609176001016100	609176001016199
22	Ø 1.1 - 1.6	2p	Black	009176002022806	069176701602000	069176701702000	069176701702002	609176002016000	609176002016099
22	Ø 1.1 - 1.6	2p	White	009176002022906	069176701602000	069176701702000	069176701702002	609176002016100	609176002016199
22	Ø 1.1 - 1.6	3p	Black	009176003022806	069176701602000	069176701702000	069176701702003	609176003016000	609176003016099
22	Ø 1.1 - 1.6	3p	White	009176003022906	069176701602000	069176701702000	069176701702003	609176003016100	609176003016199
24	Ø 1.1 - 1.6	1p	Black	009176001032806	069176701602000	069176701702000	069176701701001	609176001016000	609176001016099
24	Ø 1.1 - 1.6	1p	White	009176001032906	069176701602000	069176701702000	069176701701001	609176001016100	609176001016199
24	Ø 1.1 - 1.6	2p	Black	009176002032806	069176701602000	069176701702000	069176701702002	609176002016000	609176002016099
24	Ø 1.1 - 1.6	2p	White	009176002032906	069176701602000	069176701702000	069176701702002	609176002016100	609176002016199
24	Ø 1.1 - 1.6	3p	Black	009176003032806	069176701602000	069176701702000	069176701702003	609176003016000	609176003016099
24	Ø 1.1 - 1.6	3p	White	009176003032906	069176701602000	069176701702000	069176701702003	609176003016100	609176003016199

\* Hand Insertion Tooling - Universal Hand Tool 067000773001000; Consult Application Notes 201-01-124