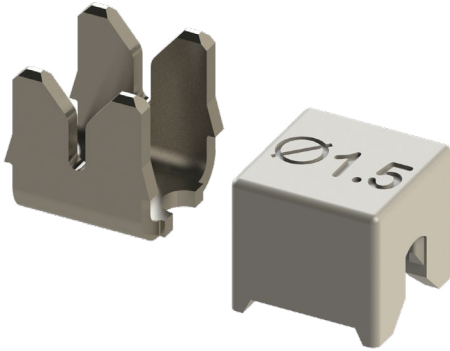


SINGLE IDC CONTACT 22-30 AWG: 9176-400



General Information



The 917X series of surface mount Insulation Displacement Connectors (IDC) were developed to meet the harsh requirements of automotive and industrial applications. This industry proven series of connectors provides a robust, reliable, and efficient method to connect individual wires ranging from 12 AWG to 30 AWG directly to a PCB. The single contact design can function as a standalone component. It provides our designers access to IDC technology in an easy to use form-factor allowing them to bring power and signal to a PCB in a wide range of applications. These connectors have been tested to various levels of shock, vibration, and temperature cycling to prove their reliability and robustness. The simplicity of inserting a wire into an SMT contact with a small tool or optional retention / termination cap allows a wide range of devices to be connected to the PCB without soldering. The IDC contact provides a gas-tight connection to the wire and the optional cap provides a positive strain relief even in the harshest conditions. In case of repair, the wires can be removed and replaced up to three times.

The single 9176-400 series contact accepts 22 AWG to 30 AWG wires. Various sizes of termination tool are available based on the wire insulation diameter. The optional cap functions as a termination tool and a strain relief for severe vibration applications. The current tools and caps are designed to accept insulation diameters ranging from 0.75mm to 1.5mm. The dual beam contact design supports up to a 6 amp current rating with a large SMT solder base to provide maximum stability on the PCB. The optional cap acts as the termination tool as well as a strain relief for severe 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 201-01-126

FEATURES AND BENEFITS

- IDC is the best choice for potting or over-moulding
- IDC contact provides a gas-tight connection to the PCB for long term reliability
- Optional termination cap provides additional strain relief for severe environments
- Tested to various levels on shock, vibration and temperature cycling for reliability
- Reduced total applied cost versus solder or crimp processes
- Individual contacts can be located anywhere on the PCB based on specific application
- IDC contact is supplied in T&R pockets for standard SMT placement

ELECTRICAL

- Current Rating: 6A: 22 to 28 AWG
3A: 30 AWG
- Voltage Rating: Dependant on component proximity

ENVIRONMENTAL

- Operating Temperature: -40°C to +130°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Contact Material: Phosphor Bronze
- Plating: Tin over Nickel
- Durability: 3 Cycles
- Cap Insulator Material: Nylon 46: UL94V-0

HOW TO ORDER – CONTACT OPTIONS

70	9176	001
Prefix	Series	Number of Ways
70 = Contact		001 = 1

4XX		Wire Gauge Size
Code	Accepted Wire Gauge	
422	22 Gauge Solid or Stranded	
432	24 Gauge Solid or Stranded	
442	26 Gauge Solid or Stranded	
443	28 Gauge Solid or Stranded	
444	30 Gauge Solid or Stranded	

006	Plating Option
006 =	Pure Tin all over



HOW TO ORDER – CAP OPTIONS

60	9176	001
Prefix	Series	Number of Ways
60 = Cap		001 = 1

415		Wire Gauge Size
Code	Wire Insulation	
415	Ø 0.75-1.5	

X00		Insulator Color
Code	Color	Application
000	Black	Industrial
100	White	Lighting



CONNECTOR/TOOLING PART NUMBER MATRIX

SERIES 9176-400 IDC				HAND INSERTION TOOLING*			ACCESSORY CAPS		
AWG	Wire Insulation	Positions	Part Number	Plastic (medium volume)	Metal (high volume)		Cap Application Tool	White	Black
					Part Num.	Wire D (mm)			
22-30	Ø 0.75 - 1.5	1p	7091760014XX006	069176702201000	069176702101000	1.0-1.5	Metal: 069176702401000 Plastic: 069176702301000	609176001415100	609176001415000
					069176702102000	<1.0			

Additional tools available.

069176702103000: Wire diameters up to 1.6 mm.

069176702104000: uninsulated wire and magnet wire up to 0.7 mm diameter.

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

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