

Rugged and durable, IP67-sealed, SolarSpec™ DC connectors with simple snap-lock mating and internal locking mechanism for superior safety are designed for direct connection to solar junction boxes, field installations and photovoltaic grid wiring and deliver quality and value to module manufacturers, installers and distributors

Molex expands its range of innovative SolarSpec™ products with the introduction of pin (male) and socket (female) DC connectors. The connectors can be sold individually, as standard or custom cable assemblies, or supplied together with the Molex SolarSpec™ Junction Box for Silicon PV panels.

The in-house design and manufacture of SolarSpec™ DC connectors will enable Molex to deliver a superior quality, reliable and lower-cost solution to the market. Customers will benefit from exclusive Molex design features including molded surface ribs and the lowest contact resistance over competitive connector versions.

Molex can supply a service tool to release the internal safety locking mechanism together with a one-hand ratchet-design crimp tool for easy termination. Molex also manufactures standard and custom length cable assemblies for solar applications. For further information on all Molex SolarSpec™ products visit: www.molex.com/link/solarjunctionbox.html

FEATURES AND BENEFITS

- SolarSpec™ DC connectors are dual-qualified by TÜV and UL
- Reliable, robust connectors for solar applications
- Compliant with most recent stringent quality standards to ensure long life in harsh environments
- Product is globally accepted and marketable
- Simple snap-lock mating
- Quick and easy factory or field assembly
- Polarisation and an audible click ensure successful mating of the connectors
- Internal locking mechanism protected by latch guards; requires a tool to unlock
- Prevents accidental and unauthorised decoupling of connectors
- Ensures reliable connection and safe handling
- Touch-proof safety design
- Protection from electrical current even when connectors are unmated
- IP67-sealing protection against dust and water; resistant to UV and ozone damage
- Rugged, durable connectors for use in solar applications
- Connectors feature exclusive moulded surface ribs
- Allows for secure gripping, especially with work gloves
- Contact resistance <math><0.5\text{m}\Omega</math>
- Lowest contact resistance compared with competitor products for greatest efficiency
- Strain relief
- Ensures strong, secure, enduring cable connections
- Meets NEC 2008 (690.33) and NFPA 70
- US-code compliant; no requirement for added protection sleeve
- Accommodate 2.50mm² and 4.00 to 6.00mm² (14 and 12 to 10 AWG) cable
- Multiple cable options that meet customer requirements

MARKETS, APPLICATIONS AND DESCRIPTIONS OF TYPICAL CUSTOMERS

- Applications for DC connectors:
 - PV power plants
 - PV grid arrays
 - Inverter cable attachments
- DC connectors, terminated to cables, are used to link solar junction boxes and PV panels in a serial grid array (parallel arrangements are also possible)
- Applications for solar silicon photovoltaic (PV) panels:
 - Stadiums
 - Home installations
 - Public buildings
 - Solar farms

SolarSpec™ DC Connectors

- 130244 Pin and Socket DC Connectors
- 130196 Pin Contacts
- 130197 Socket Contacts
- 130203 Contact Service Tool



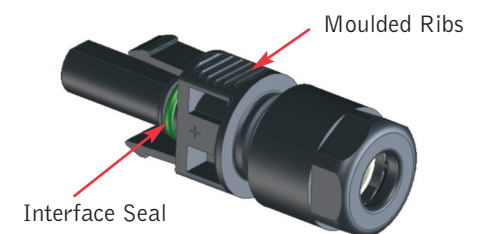
SolarSpec™ Pin (male - left) and Socket (female - right) DC Connectors

ADDITIONAL PRODUCT FEATURES



Internal Locking Only

Mated Pin and Socket DC Connectors



Socket DC Connector

SPECIFICATIONS

Reference Information

Packaging: Bulk
 UL File No.: E341346
 CSA C22.1: cRUus #E341346
 TÜV File No.: 21156060 002
 Use With: Contacts:
 Pin (130196) and socket (130197)
 Designed In: Inches
 RoHS: Yes
 Halogen Free: Yes
 Glow Wire Compliant: Yes

Mechanical

Contact Insertion Force: 30N
 Contact Retention to Housing: 20N
 Mating Force: 50N
 Unmating Force: 5.0N
 Durability (min.): 50 Cycles

Physical

Housing: Unfilled PC - Black
 Contact: Copper Alloy
 Plating:
 Contact Area — Selectively silver-plated
 Underplating — Nickel (Ni)
 Operating Temperature: -40°C to +85°C

SolarSpec™ DC Connectors

130244 Pin and Socket DC Connectors
130196 Pin Contacts
130197 Socket Contacts
130203 Contact Service Tool

Electrical

Voltage (max.): 600V DC
 Current (max.): 30.0A
 Contact Resistance: 5 Milliohms Max.
 Dielectric Withstanding Voltage: 2200V DC
 Insulation Resistance: 1000 Megohms Min.

SPECIFICATIONS

Connectors

Order No.	Pin / Socket Connectors	Packaging Information	Wire Gauge mm ²	Wire Gauge AWG	MOQ	SPQ
130244-0201	Socket (Female)	Bulk Packaging	4.00 to 6.00	10 to 12	600	600
130244-0203			2.50	14		
130244-0202	Pin (Male)	Bulk Packaging	4.00 to 6.00	10 to 12	600	600
130244-0204			2.50	14		

Connectors supplied as kits for servicing requirements

Order No.	Description	Packaging Information	Wire Gauge mm ²	Wire Gauge AWG	MOQ	SPQ
130244-1201	Socket Assembly Kit	Female Housing Assembly with Socket Contact (5 per pack)	4.00 to 6.00	10 to 12	70	70
130244-1203			2.50	14		
130244-1202	Pin Assembly Kit	Male Housing Assembly with Pin Contact (5 per pack)	4.00 to 6.00	10 to 12	70	70
130244-1204			2.50	14		

Contacts

Order No.	Pin / Socket Contact	Packaging Information	Wire Gauge mm ²	Wire Gauge AWG	MOQ	SPQ
130197-0347	Socket	Strip	2.50	14	6000	6000
130197-0346			4.00 to 6.00	10 to 12		
130197-0336		Loose	2.50	14	4000	4000
130197-0325			4.00 to 6.00	10 to 12		
130196-0315	Pin	Strip	2.50	14	6000	6000
130196-0314			4.00 to 6.00	10 to 12		
130196-0313		Loose	2.50	14	4000	4000
130196-0310			4.00 to 6.00	10 to 12		

Tooling

Order No.	Description	Packaging Information	MOQ	SPQ
130203-1250	Service Tool	Bulk	300	300
130203-1290	Service Tool	Bagged (4 per pack)	70	70
63823-6400	Hand Tool	Individual	5	5