



# Solar Array Interconnect System

## Moltec's Flexible Plug & Play Solution



**SOLAR****EZ**CONNECT

Version 2, Edition 1, May 2012

# Solar Array Interconnect System



## Moltec's Flexible Plug & Play Solution



### Advantages for the Installer

- Plug & play layout design
- Simple time saving installation
- Pre-engineered, pre-fabricated, pre-tested
- No hand wiring required
- No wasted or scrap materials
- Installation instructions provided
- Factory installation support

### Conduit's Features

- Highly flexible non-metallic conduit
- Very low smoke and toxic gas generation
- Self-extinguishing, free from halogens & cadmium
- Continuous operating temperature: -40°C(-40°F) to 105°C(221°F)
- Sizes range from: 16 mm(3/8") to 50 mm (1-1/2")
- Extremely high compression strength
- Excellent UV resistance
- Rodent resistant

### Specific Fittings

- Protection degree IP66 / IP68 / IP69k
- Metric, NPT and PG, metal and plastic threads
- Compatible with most widely used PV panel connectors
- Available with strain relief elements
- Custom fittings and assemblies available
- Design and manufacturing capabilities for specialty fittings





# Solar Array Interconnect System



## Moltec's Flexible Plug & Play Solution




EZ Connect Solar Array Interconnect System was developed through direct efforts with developers and installation contractors. The EZ Connect system substantially reduces the high costs of materials installation associated with hand assembly and routing of wiring of multiple strings of multi-panel arrays to the combiner boxes. Certified labour is not required.

EZ Connect is designed and manufactured by Moltec using its specialized wire protection products, providing flexible, durable and watertight construction with high resistance to UV exposure and damage from rodents. The system utilizes industry standard solar cable connectors for interconnection to the mating input/output cable connectors from each multi panel string.

There is no limit to the size and configuration of EZ Connect as each system is designed to meet the exact layout for any project, utilizing the system's standard components and materials.

The pre-engineered EZ Connect solution is simply laid out along the entire length of each row of panels and is quickly and simply mounted using only hand tools to secure the provided brackets. The brackets are available for any number of frame or flat surface configurations commonly used in array support structures. Once mounted, the input and output connectors of the EZ Connect are mated to the string connectors and the job is done.

The EZ Connect design produces a very clean and trim installation, providing time savings of as much as 80% when compared to traditional "Build-in-Place" methods. With the Moltec system, the procurement of a large list of materials, handling and processing of wire, installing connectors, cutting and bending conduits, j-box installations, installation of fittings, and mounting with a number of various brackets and related hardware is not necessary.

EZ Connect Solar Array Interconnect System is constructed with  **UL** us Listed,  **R** us Recognized &  **SP** us Certified electrical components. Every system is electrically and mechanically tested in the company's **ISO 9001/2008** certified factory to assure the highest level of quality, installation success, and operational performance available. Wiring errors in the field and the high cost of associated re-work and project start-up delays are virtually eliminated.

## SOLAR EZ CONNECT



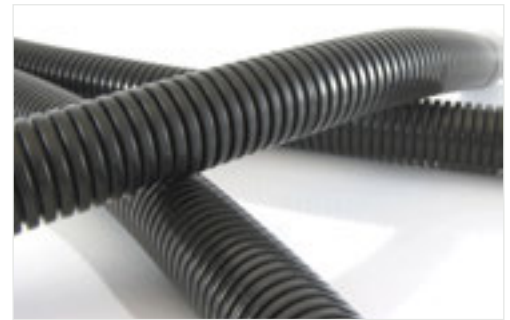
# Solar Array Interconnect System



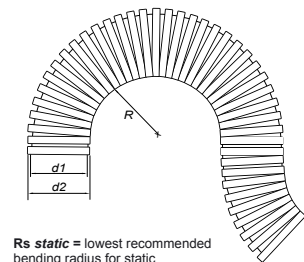
## Moltec's Flexible Plug & Play Solution

### Very Flexible, Medium Duty Conduit

- High-grade, specially formulated polyamide 6
- Rodent resistant
- Halogens and cadmium free
- Good weather and UV resistance
- Good mechanical strength (compression / impact)
- Self-extinguishing
- Good temperature resistance
- Temperature range: -40°C(-40°F) to 105°C(221°F)
- Short-term to 160°C(320°F)



Conduit Size	Trade Size		d1		d2		Rs Static		PU	
NW	mm	in	mm	in	mm	in	mm	in	m	ft
12	16	3/8	12.0	0.47	15.8	0.62	30.0	1.18	50	164.0
17	20	1/2	16.2	0.64	21.2	0.83	40.0	1.57	50	164.0
23	25	3/4	22.6	0.89	28.5	1.12	45.0	1.77	50	164.0
29	32	1	29.0	1.14	34.5	1.36	55.0	2.17	50	164.0
36	40	1-1/4	36.5	1.44	42.5	1.67	60.0	2.36	30	98.4
48	50	1-1/2	48.5	1.91	54.5	2.15	70.0	2.76	30	98.4



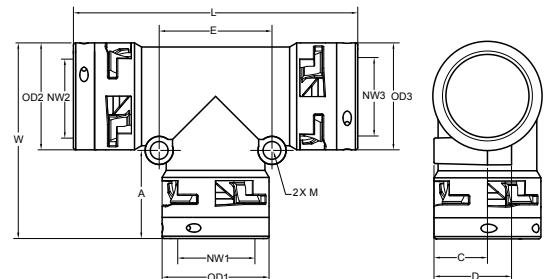
Rs static = lowest recommended bending radius for static (fixed) installation.

### T type Connectors



- Locking device system provides a quick and secure push-in connection of corrugated conduits
- High-grade formulated polyamide
- Rodent resistant
- Self-extinguishing, free from halogens and cadmium
- Excellent impact strength
- Temperature range: -40°C(-40°F) to 105°C(221°F)

Fits to Conduit	A		C		D		E		W		L		M	OD1 / OD2 / OD3	
NW1-NW2-NW3	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	mm	in
12 - 12 - 12	27.0	1.06	12.0	0.47	18	0.71	26.0	1.02	51.7	2.03	79.3	3.12	4	24.0	0.94
17 - 17 - 17	28.0	1.10	15.0	0.59	22	0.87	32.0	1.26	58.4	2.30	86.7	3.41	5	30.0	1.18
23 - 23 - 23	36.0	1.42	19.0	0.75	26	1.02	40.0	1.57	75.0	3.97	112.0	4.41	6	38.0	1.50
29 - 29 - 29	37.5	1.48	22.8	0.90	33	1.30	48.0	1.89	83.3	3.28	121.0	4.76	6	45.5	1.79
36 - 36 - 36	44.5	1.75	28.5	1.12	38	1.50	58.0	2.28	100.8	3.97	144.5	5.69	6	57.0	2.24
48 - 48 - 48	52.0	2.05	34.0	1.34	47	1.85	70.0	2.76	118.8	4.68	169.5	6.67	6	68.0	2.68

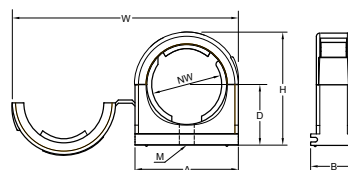


### One-piece System Support

- High-grade formulated polyamide
- Self-extinguishing, free from halogens and cadmium
- Rodent resistant
- Excellent impact strength
- Temperature range: -40°C(-40°F) to 105°C(221°F)
- One-piece tube clamp with integrated safety clip



Fits to Conduit	A		B		D		H		W		M
NW	mm	in	mm	in	mm	in	mm	in	mm	in	mm
12	16	3/8	24.0	0.94	20.0	0.79	16.4	0.65	28.6	1.13	54.0
17	20	1/2	30.0	1.18	20.0	0.79	19.7	0.78	34.9	1.37	68.0
23	25	3/4	38.0	1.50	20.0	0.79	23.3	0.92	42.5	1.67	84.0
29	32	1	45.0	1.77	20.0	0.79	26.4	1.04	49.0	1.93	98.0
36	40	1-1/4	55.0	2.17	20.0	0.79	30.2	1.19	58.0	2.28	118.0
48	50	1-1/2	67.5	2.66	20.0	0.79	36.3	1.43	70.3	2.77	143.0

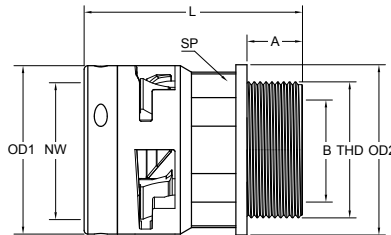


# Solar Array Interconnect System

## Moltec's Flexible Plug & Play Solution

### Straight Fittings

- Locking device system provides a quick and secure push-in connection of corrugated conduits
- High-grade formulated polyamide
- Rodent resistant
- Self-extinguishing, free from halogens and cadmium
- Excellent impact strength
- Temperature range: -40°C(-40°F) to 105°C(221°F)



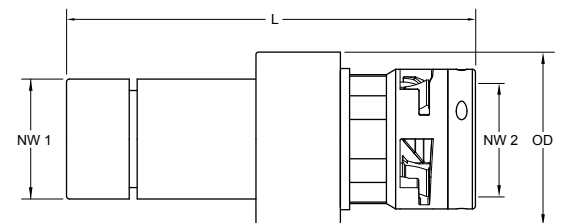
THD	Fits to Conduit			A		B		L		OD1		OD2		SP	
Metric	NW	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
M20x1.5	12	16	3/8	12.0	0.47	13.0	0.51	44.7	1.76	24.0	0.94	26.0	1.02	20.0	0.79
M25x1.5	17	20	1/2	13.0	0.51	18.5	0.73	46.9	1.84	30.0	1.18	30.0	1.18	26.0	1.02
M32x1.5	23	25	3/4	14.0	0.55	27.0	1.06	57.0	2.24	38.0	1.50	40.0	1.57	32.0	1.26
M40x1.5	29	32	1	15.0	0.59	33.5	1.32	59.0	2.32	45.5	1.79	46.0	1.81	40.0	1.57
M50x1.5	36	40	1-1/4	17.0	0.67	40.0	1.57	69.0	2.72	57.0	2.24	58.0	2.28	50.0	1.97
M63x1.5	48	50	1-1/2	17.0	0.67	49.0	1.93	75.5	2.97	68.0	2.68	70.0	2.76	64.0	2.52

### Conduit Reducers



- Locking device system provides a quick and secure push-in connection of corrugated conduits
- High-grade formulated polyamide
- Rodent resistant
- Self-extinguishing, free from halogens and cadmium
- Excellent impact strength
- Temperature range: -40°C(-40°F) to 105°C(221°F)

Fits to Conduit		L		OD	
NW 1	NW 2	mm	in	mm	in
17	12	77.5	3.05	30.0	1.18
23	12	87.5	3.44	38.0	1.50
23	17	89.0	3.50	38.0	1.50
29	12	89.5	3.52	45.5	1.79
29	17	91.0	3.58	45.5	1.79
29	23	100.0	3.94	45.5	1.79
36	29	110.0	4.33	57.0	2.24
48	36	126.5	4.98	68.0	2.68



**Compatible with all solar connectors in the market**





# Solar Array Interconnect System



## Moltec's Flexible Plug & Play Solution



# Solar Array Interconnect System



Moltec's Flexible Plug & Play Solution





# SOLAR EZ CONNECT

