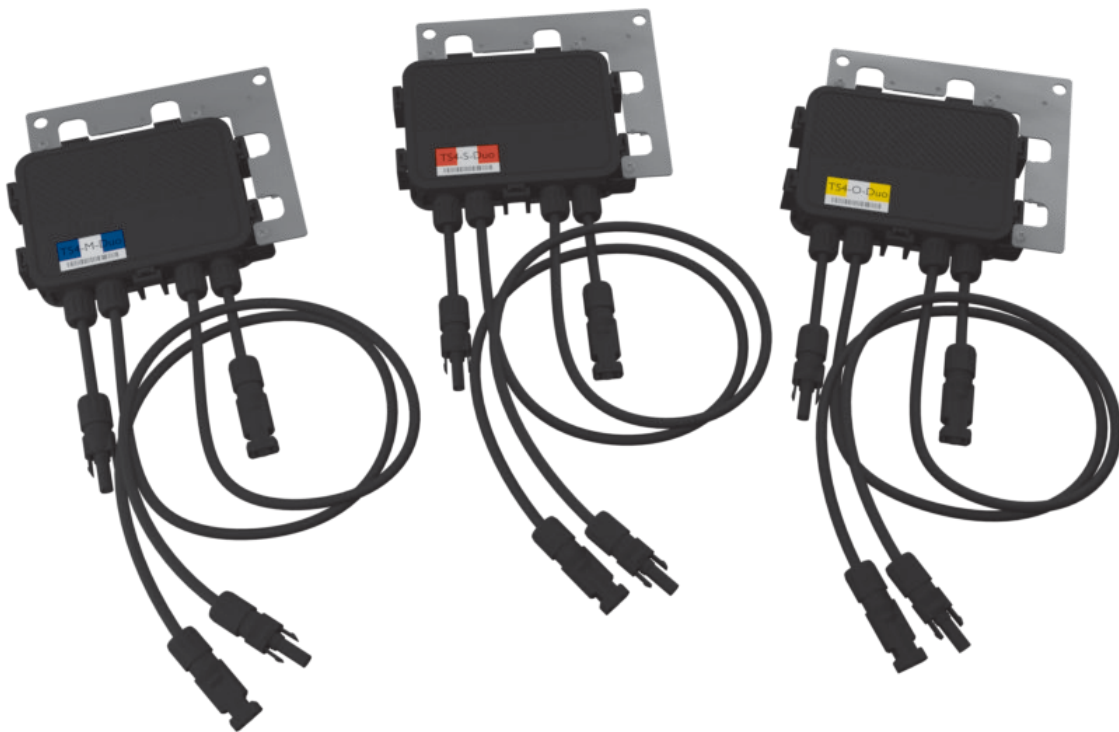


### TS4 PLATFORM

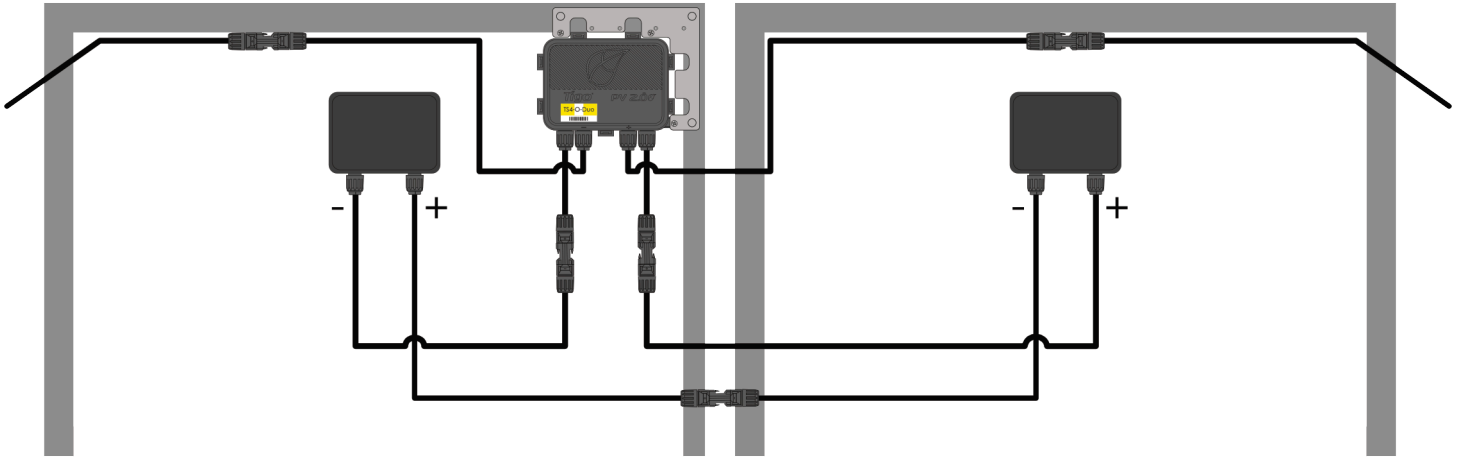
The TS4-R-X-Duo is an add-on or retrofit solution that brings smart module functionality to standard PV modules, adds smart features to new PV installations, or upgrades underperforming systems. The Duo cover with UHD-Core technology and expanded specifications supports two PV modules connected in series with a combined power of up to 700W.



# ADD-ON / RETROFIT MODULAR PLATFORM

## TS4-R-X-DUO

Type: TS4-R (base up to 1500V)



Installation example: Serial connection of two PV modules to a TS4-R-O-DUO

## MECHANICAL SPECIFICATIONS

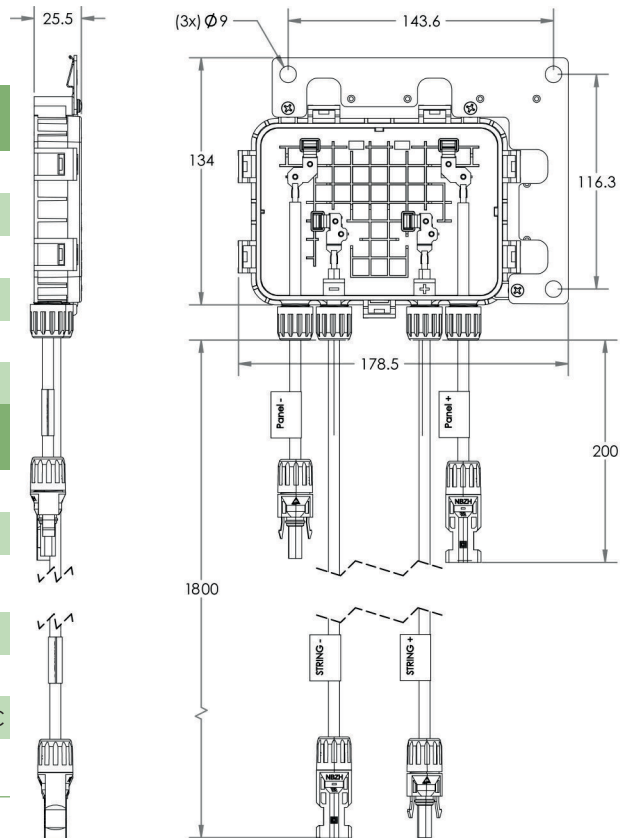
### Mechanical

Operating Temperature Range	-40°C to +75°C (-40°F to +167°F)
Storage Temperature Range	-40°C to +75°C (-40°F to +167°F)
Cooling Method	Natural Convection
Dimensions (with cover)	178.5mm x 134mm x 25.5mm
Weight per unit	710g (M-Duo or S-Duo), 770g (O-Duo)
Outdoor Rating	IP68, NEMA 3R

### Cabling

Type	H1Z2Z2-K
Output Cable Length	1.8m
Cable & Connector Options	1000V rated 1500V rated
Cable Cross-Section	6.4 ± 0.2mm
Connectors	MC4, EVO2, UTX, MC4 Compatible
UV Resistance	500hr with UV light between 300-400nm @65°C
Maximum String Voltage	1500V UL/IEC <sup>1</sup>

<sup>1</sup> All TS4 covers are 1500V compatible. Specify max system voltage when ordering TS4-R bases for appropriate cables & connectors.



# ENHANCE YOUR PV SYSTEMS WITH TS4-R-X-DUO

Tigo has expanded its retrofit platform to provide three more levels of customization. With a universal base and a range of covers containing the Flex MLPE, TS4-R-X-Duo increases your freedom of choice when selecting features for a particular project and budget.

## OPTIMIZATION

### TS4-R-O-DUO



Monitoring Safety Optimization

- Shade and mismatch tolerance
- Enhanced energy yield
- Greater design flexibility
- Maximized roof usage
- Plus all the benefits of Safety and Monitoring when deployed with communication (optional)

## SAFETY

### TS4-R-S-DUO



Monitoring Safety

- NEC 690.12 rapid shutdown compliant
- Module-level deactivation
- Automatic or manual shutdown
- Plus all the benefits of Monitoring when deployed with communication (optional)

## MONITORING

### TS4-R-M-DUO



Monitoring

- Reduced O&M costs
- PV-2.0 data synchronization
- CRM integration
- Fleet management

# ELECTRICAL RATINGS



**MONITORING**  
TS4-R-M-DUO



**SAFETY**  
TS4-R-S-DUO



**OPTIMIZATION**  
TS4-R-O-DUO

<b>INPUT</b>			
Maximum DC Input Power	700W	700W	700W
Maximum Input Voltage	90V	90V	90V
Maximum Continuous Input Current (I <sub>MAX</sub> )	12A	12A	12A
<b>OUTPUT</b>			
Output Power Range	0 - 700W	0 - 700W	0 - 700W
Output Voltage Range	0 - V <sub>IN</sub>	0 - V <sub>IN</sub>	0 - V <sub>IN</sub>
Communication Type	802.15.4 2.4GHz	802.15.4 2.4GHz	802.15.4 2.4GHz
Rapid Shutdown UL Listed (NEC 2014 & 2017 690.12)	No	Yes	Yes
Impedance Matching Capability	No	No	Yes
Output Voltage Limit	No	No	No
Maximum System Voltage	1000V / 1500V	1000V / 1500V	1000V / 1500V
Recommended Fuse Rating	15A	15A	15A

## ORDERING INFORMATION

Add-on / Retrofit Unit	1000V TÜV / UL, MC4, 1.8m cable
TS4-R-M-Duo	Monitoring
TS4-R-S-Duo	Safety
TS4-R-O-Duo	Optimization
Options	
<input type="checkbox"/>	1500V TÜV / UL

All TS4 covers are 1500V compatible. Specify max system voltage when ordering TS4-R bases for appropriate cables & connectors.

### For sales info:

sales@tigoenergy.com or 1.408.402.0802

### For product info:

Visit [www.tigoenergy.com/products](http://www.tigoenergy.com/products)

### For TS4-R add-on / retrofit units:

Contact your local distributor or sales@tigoenergy.com

### For technical info:

<http://support.tigoenergy.com>

For additional info and product selection assistance, use Tigo's online design tool at [www.tigoenergy.com/design](http://www.tigoenergy.com/design)

