

SMART MODULE - PLATFORM

The TS4 universal platform enables plug-and-play functionality for any solar module. The base provides a single interface that can be matched with one of several electronic covers to address a range of functions and budgets. Together they form a new generation of module-level power electronics; the Flex MLPE, flexible, replaceable, and upgradeable, accompanied by a powerful PV 2.0 communication backend.



INTEGRATED MODULAR PLATFORM

TS4-B

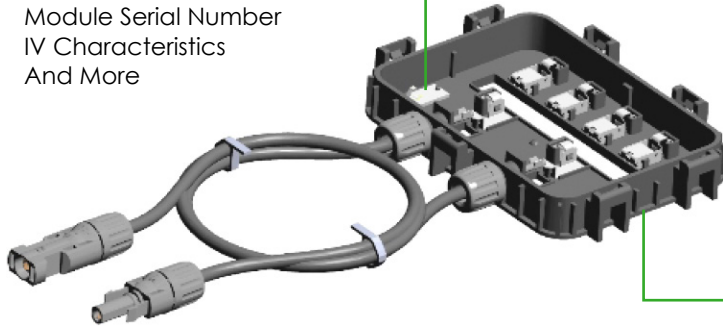
Type: TS4-B (base up to 1500V)

INTEGRATED JUNCTION BOX BASE



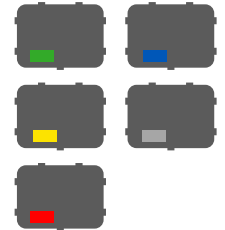
Electronically Readable:

- Module Serial Number
- IV Characteristics
- And More



Choice of Electronic Covers

Removable TS4 covers with Different Levels of Functionality



PV Module Integrated Jbox base

Factory-installed for Smart Ready Solar

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) 152.5mm x 108mm x 25.3mm

Weight (without cover) 270g,

Outdoor Rating IP65/67, NEMA 3R

Cabling

Type PV1-F, PV wire

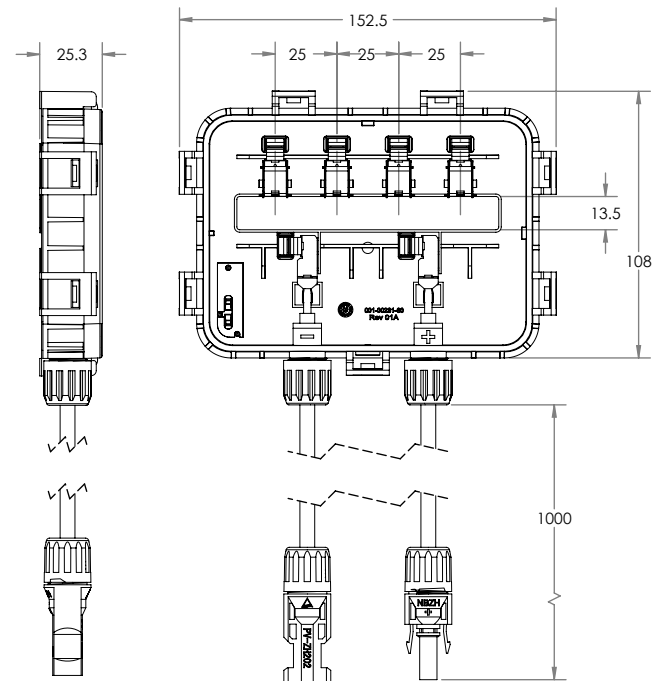
Output Length Standard 1.0m, other lengths on request

Cable Cross-Section 4.0mm² (12AWG)

Cable selection 600V/1000V rated
1500V rated

Connectors MC4, MC4 compatible, Amphenol

Maximum String Voltage 600V UL/1000V IEC, 1000V UL/IEC or
1500V UL/IEC



*All dimensions are in mm

MEET YOUR PROJECTS' NEEDS WITH TS4

Tigo has expanded its smart module platform to provide five levels of customization. With a universal base and a range of covers containing the Flex MLPE, TS4 increases your freedom of choice when selecting features for a particular project and budget. TS4 cover options range from standard diodes all the way to fully optimized performance and safety features.

LONG STRINGS

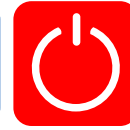
TS4-L



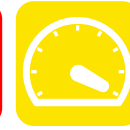
Diodes



Monitoring



Safety



Optimization



Long Strings

- String length increased by up to 30%
- Fewer BOS components
- Faster installation
- Inverter optimization

- Lower wire-losses
- Plus all the benefits of Optimization, Safety, and Monitoring

OPTIMIZATION

TS4-O



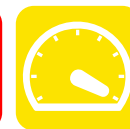
Diodes



Monitoring



Safety



Optimization

- Shade and age tolerance
- Enhanced energy yield
- Greater design flexibility

- Maximized roof usage
- Plus all the benefits of Safety, and Monitoring

SAFETY

TS4-S



Diodes



Monitoring



Safety

- Meet NEC 2014 690.12 rapid shutdown requirement
- Module-level deactivation

- Automatic or manual shutdown
- Plus all the benefits of Monitoring

MONITORING

TS4-M



Diodes



Monitoring

- Reduced O&M costs
- PV-2.0 data synchronization
- Module bar code tracking

- CRM integration
- Warranty tracking
- Fleet management

DIODES

TS4-D



Diodes

- Similar to a standard junction box
- Standardization on basic TS4 baseplate
- Applicable to conventional and smart modules

- Field replaceable and upgradeable
- Heat dissipation away from the module

TS4 COVERS



**DIODES
TS4-D**



**MONITORING
TS4-M**



**SAFETY
TS4-S**



**OPTIMIZATION
TS4-O**



**LONG STRINGS
TS4-L**

ELECTRICAL RATINGS

INPUT @ STC

Rated DC Input Power	375W	375W	375W	375W	375W
Maximum PV Module Open Circuit Voltage(V _{oc})		52V	52V	52V	52V
Maximum Current	12A	12A	12A	10A	10A
PV Module V _{mp} range		16-48V	16-48V	16-48V	16-48V

OUTPUT

Output Power Range		0-375W	0-375W	0-375W	0-375W
Output Voltage Range			0-V _{oc}		
Rapid Shutdown Verified (NEC 2014 690.12)	No	No	Yes	Yes	Yes
Impedance Matching Capability	No	No	No	Yes	Yes
Output Voltage Limit	No	No	No	No	Yes
Maximum System Voltage			600/1000/1500V		
Series Fuse Rating			15A		

ORDERING INFORMATION

	Base	Covers
PV INTEGRATED	TS4-B (600V/1000V)	
Diodes		TS4-D
Monitoring		TS4-M
Safety		TS4-S
Optimization		TS4-O
Long Strings		TS4-L
PV INTEGRATED	TS4-B1500 (1500V)	
Diodes		TS4-D
Monitoring		TS4-M
Safety		TS4-S
Optimization		TS4-O
Long Strings		TS4-L

Covers are available separately. Specify TS4-D, TS4-M, TS4-S, TS4-O, or TS4-L.



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For product info:

Visit www.tigoenergy.com/products

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For additional info and product selection assistance, use Tigo's online design tool at www.tigoenergy.com/design

