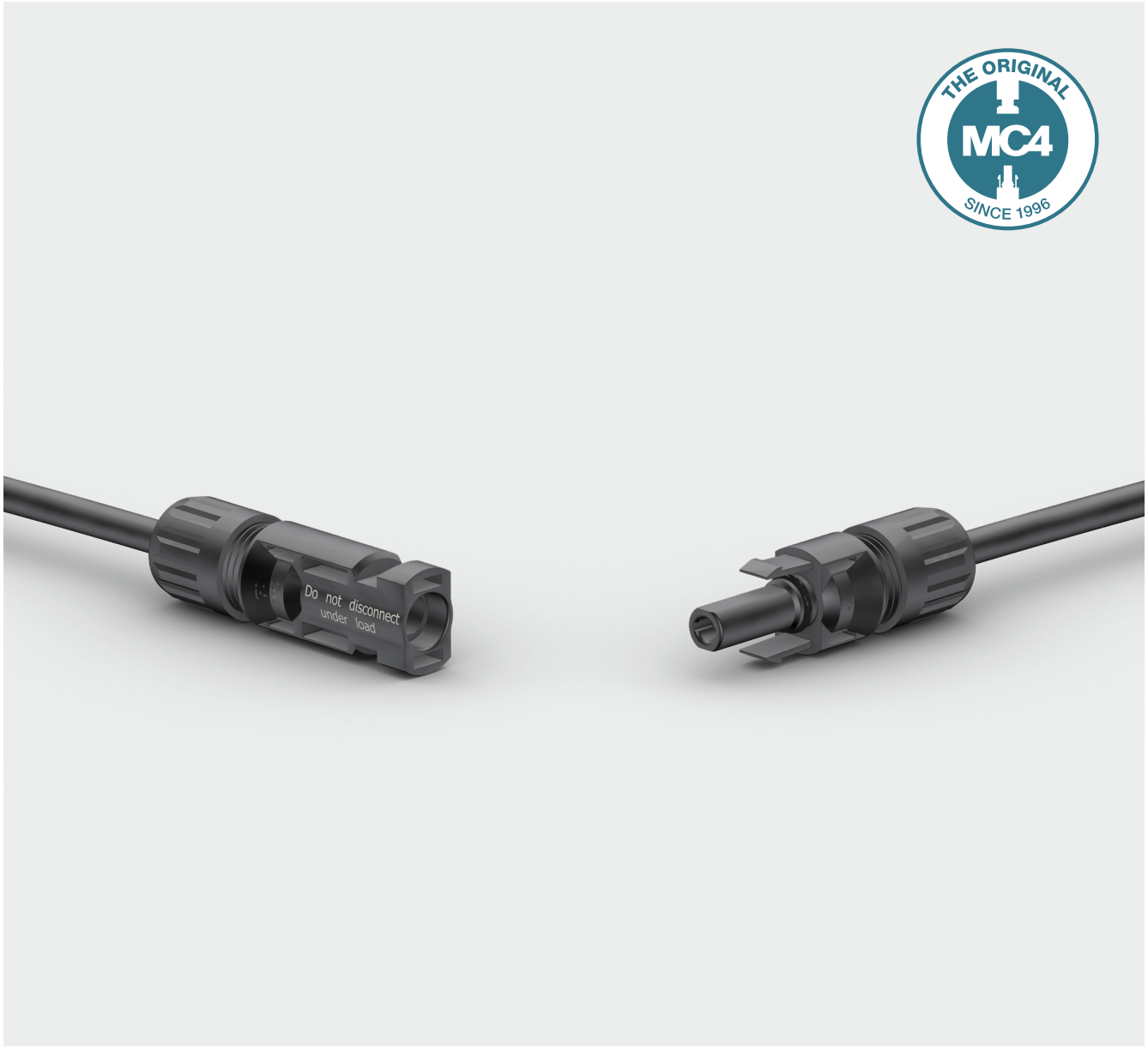
FAST MOVING TECHNOLOGY

# Original MC4

## Renewable Energy | Solar Photovoltaics

EN



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# Female and male cable coupler MC4

## As individual part with open crimp contact (including insulating part)



Female cable coupler PV-KBT4...



Male cable coupler PV-KST4...

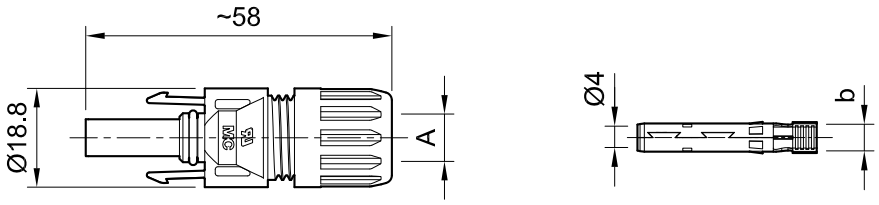
- In accordance with NEC 2023, requires a tool to open.
- Proven MULTILAM technology with high long-term stability, which ensures consistently low performance loss throughout the entire service life of the plug connector.
- Approved for DC 1100 V (IEC)[1)] and DC 1500 V (UL).
- Tried and tested plug connectors, over 25 years of experience in the field.
- Available for assembly with cross-sections up to 10 mm².
- Also available as ready made leads according to customer's specification.
- To be used with suitable mated connectors from the MC4 product family and suitable lead.

## Technical data

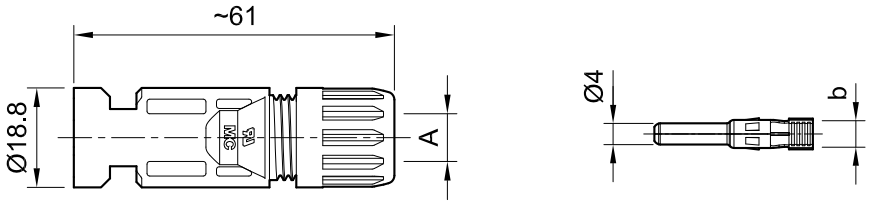
| Technical data | |
|---|---|
| Ambient temperature range | -40 °C...+85 °C (TÜV/UL) |
| Upper limiting temperature | 105 °C |
| Degree of protection, mated | IP65/IP68 (1 m, 1 h) |
| Degree of protection, unmated | IP2X |
| Degree of pollution | 3 |
| Max. contact resistance of the connector | 0.25 mΩ |
| Rated Impulse Voltage | 16 kV |
| Contact system | MULTILAM |
| Type of connection | Crimping |
| Contact material | Copper, tin plated |
| Insulation material | PC/PA |
| Locking system | Locking Type |
| Fire protection class | UL94:V-0 |
| Ammonia resistance (acc. to DLG) | yes |
| Salt mist spray test, degree of severity 6 | yes |
| TÜV Rheinland certifications number | R 60127190 |
| TÜV Rheinland 2 PfG 2330 | R 60087448 |
| UL-File number<br>(UL6703 and CSA C22.2 No. 182.5)<br>(cULus Listed and UL Recognized) | E343181 |
| CQC number of certificate | CQC20024256431 |
| JET number of certificate | B19T0013 |

[1)] The IEC voltage expansion for MC4 cable couplers up to DC 1100 V applies to 2.5 mm², 4.0 mm² and 6.0 mm² cable cross sections used in the end application. However, the 10 mm² cross-section remains at DC 1000 V.

## Dimensional drawings




Female cable coupler PV-KBT4...




Male cable coupler PV-KST4...

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## Ordering information

| Order No. | Type | Socket | Plug | Outer diameter of cable | Width of crimp opening | IEC 62852 | | | UL 6703 | | | Approvals | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | A (mm) | b (mm) | mm² | DC V | A | AWG | DC V | A | TÜV | cULus | UR | CQC | JET |
| **32.0010P0001-UR** | PV-KBT4/2,5I-UR | × | | 5.0 – 6.0 | 4.0 | 2.5 | 1100 | 22.5 | | | | × | × | × | | × |
| | | | | | | | | | 14 | 1500 | 30 | | | | | |
| **32.0011P0001-UR** | PV-KST4/2,5I-UR | | × | 5.0 – 6.0 | 4.0 | 2.5 | 1100 | 22.5 | | | | × | × | × | | × |
| | | | | | | | | | 14 | 1500 | 30 | | | | | |
| **32.0140P0001-UR** | PV-KBT4/2,5X-UR | × | | 5.5 – 7.4 | 4.0 | 2.5 | 1100 | 22.5 | | | | × | × | × | | × |
| | | | | | | | | | 14 | 1500 | 30 | | | | | |
| **32.0141P0001-UR** | PV-KST4/2,5X-UR | | × | 5.5 – 7.4 | 4.0 | 2.5 | 1100 | 22.5 | | | | × | × | × | | × |
| | | | | | | | | | 14 | 1500 | 30 | | | | | |
| **32.0012P0001-UR** | PV-KBT4/2,5II-UR | × | | 7.0 – 8.8 | 4.0 | 2.5 | 1100 | 22.5 | | | | × | × | × | × | × |
| | | | | | | | | | 14 | 1500 | 30 | | | | | |
| **32.0013P0001-UR** | PV-KST4/2,5II-UR | | × | 7.0 – 8.8 | 4.0 | 2.5 | 1100 | 22.5 | | | | × | × | × | × | × |
| | | | | | | | | | 14 | 1500 | 30 | | | | | |
| **32.0014P0001-UR** | PV-KBT4/6I-UR | × | | 5.0 – 6.0 | 5.8 | 4 | 1100 | 39 | | | | × | × | × | | × |
| | | | | | | 6 | 1100 | 39 | | | | | | | | |
| | | | | | | | | | 12 | 1500 | 35 | | | | | |
| | | | | | | | | | 10 | 1500 | 50 | | | | | |
| **32.0015P0001-UR** | PV-KST4/6I-UR | | × | 5.0 – 6.0 | 5.8 | 4 | 1100 | 39 | | | | × | × | × | | × |
| | | | | | | 6 | 1100 | 39 | | | | | | | | |
| | | | | | | | | | 12 | 1500 | 35 | | | | | |
| | | | | | | | | | 10 | 1500 | 50 | | | | | |
| **32.0142P0001-UR** | PV-KBT4/6X-UR | × | | 5.5 – 7.4 | 5.8 | 4 | 1100 | 39 | | | | × | × | × | | × |
| | | | | | | 6 | 1100 | 39 | | | | | | | | |
| | | | | | | | | | 12 | 1500 | 35 | | | | | |
| | | | | | | | | | 10 | 1500 | 50 | | | | | |
| **32.0143P0001-UR** | PV-KST4/6X-UR | | × | 5.5 – 7.4 | 5.8 | 4 | 1100 | 39 | | | | × | × | × | | × |
| | | | | | | 6 | 1100 | 39 | | | | | | | | |
| | | | | | | | | | 12 | 1500 | 35 | | | | | |
| | | | | | | | | | 10 | 1500 | 50 | | | | | |
| **32.0016P0001-UR** | PV-KBT4/6II-UR | × | | 7.0 – 8.8 | 5.8 | 4 | 1100 | 39 | | | | × | × | × | × | × |
| | | | | | | 6 | 1100 | 39 | | | | | | | | |
| | | | | | | | | | 12 | 1500 | 35 | | | | | |
| | | | | | | | | | 10 | 1500 | 50 | | | | | |

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| Order No. | Type | Socket | Plug | Outer diameter of cable | Width of crimp opening | IEC 62852 | | | UL 6703 | | | Approvals | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | A (mm) | b (mm) | mm² | DC V | A | AWG | DC V | A | TÜV | cULus | UR | CQC | JET |
| **32.0017P0001-UR** | PV-KST4/6II-UR | | × | 7.0 – 8.8 | 5.8 | 4 | 1100 | 39 | | | | × | × | × | × | × |
| | | | | | | 6 | 1100 | 39 | | | | | | | | |
| | | | | | | | | | 12 | 1500 | 35 | | | | | |
| | | | | | | | | | 10 | 1500 | 50 | | | | | |
| **32.0034P0001** | PV-KBT4/10II | × | | 7.0 – 8.8 | 6.5 | 10 | 1000 | 45 | | | | × | | | | × |
| **32.0035P0001** | PV-KST4/10II | | × | 7.0 – 8.8 | 6.5 | 10 | 1000 | 45 | | | | × | | | | × |

**Note:**
For more detailed information concerning the suitable cable gland range, please consult corresponding assembly instructions (see “Further information”).

**Note:**
Unmated connectors must be protected from any contamination using Stäubli sealing caps. For ordering information concerning Stäubli sealing caps, please consult corresponding catalog (see “Further information”).

## Further information

**Female and male cable coupler with barrel crimp contacts**
For cable coupler with barrel crimp contacts, please consult:
www.staubli.com/re-downloads.html ➞ English ➞ Catalog ➞ **Cable coupler with barrel crimp contacts**

**Tools and accessories**
For related Stäubli tools and accessories please consult:
www.staubli.com/re-downloads.html ➞ English ➞ Catalog ➞ **Tools and accessories**

**Assembly instructions**
For assembly instructions for “Female and male cable coupler MC4” please consult:
www.staubli.com/re-downloads.html ➞ English ➞ Assembly info ➞ **MA231**

# Female and male cable coupler MC4

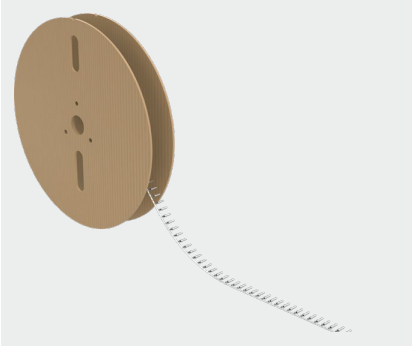
## Open crimp contacts on carrier band (including insulating part)



Female cable coupler PV-KBT4...



Male cable coupler PV-KST4...



Reel with contacts

- In accordance with NEC 2023, requires a tool to open.
- Proven MULTILAM technology with high long-term stability, which ensures consistently low performance loss throughout the entire service life of the plug connector.
- Approved for DC 1100 V (IEC)[1)] and DC 1500 V (UL).
- Tried and tested plug connectors, over 25 years of experience in the field.
- Available for assembly with cross-sections up to 10 mm².
- To be used with suitable mated connectors from the MC4 product family and suitable lead.
- Also available as ready made leads according to customer's specification.

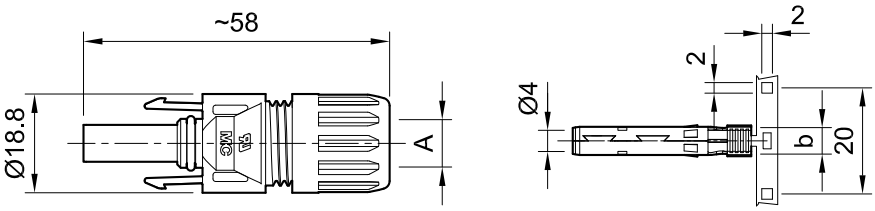
## Technical data

| Technical data | |
|---|---|
| Ambient temperature range | -40 °C...+85 °C (TÜV/UL) |
| Upper limiting temperature | 105 °C |
| Degree of protection, mated | IP65/IP68 (1 m, 1 h) |
| Degree of protection, unmated | IP2X |
| Degree of pollution | 3 |
| Max. contact resistance of the connector | 0.25 mΩ |
| Rated Impulse Voltage | 16 kV |
| Contact system | MULTILAM |

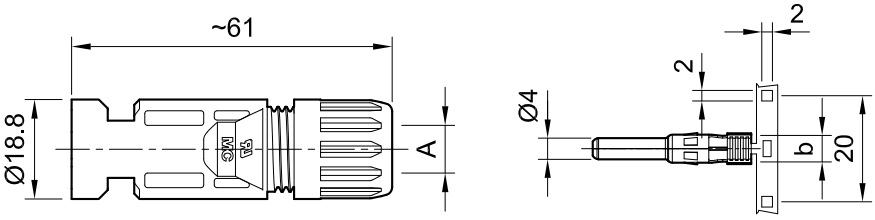
[1)] The IEC voltage expansion for MC4 cable couplers up to DC 1100 V applies to 2.5 mm², 4.0 mm² and 6.0 mm² cable cross sections used in the end application. However, the 10 mm² cross-section remains at DC 1000 V.

| Technical data | |
|---|---|
| Type of connection | Crimping |
| Contact material | Copper, tin plated |
| Insulation material | PC/PA |
| Locking system | Locking Type |
| Fire protection class | UL94:V-0 |
| Ammonia resistance (acc. to DLG) | yes |
| Salt mist spray test, degree of severity 6 | yes |
| TÜV Rheinland certifications number | R 60127190 |
| TÜV Rheinland 2 PfG 2330 | R 60087448 |
| UL-File number<br>(UL6703 and CSA C22.2 No. 182.5)<br>(cULus Listed and UL Recognized) | E343181 |
| CQC number of certificate | CQC20024256431 |
| JET number of certificate | B19T0013 |

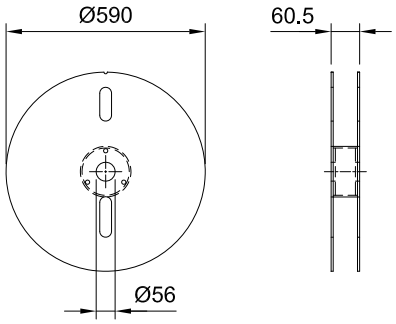
## Dimensional drawings




Female cable coupler PV-KBT4...




Male cable coupler PV-KST4...




Reel with contacts

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## Ordering information

| Order No. | Type | Socket | Plug | Outer diameter of cable | Width of crimp opening | IEC 62852 | | | UL 6703 | | | Contacts per reel | Approvals | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | A (mm) | b (mm) | mm² | DC V | A | AWG | DC V | A | | TÜV | cULus | UR | CQC | JET |
| **32.0010P2000-UR** | PV-KBT4/2,5I-UR | × | | 5.0 – 6.0 | 4.0 | 2.5 | 1100 | 22.5 | 14 | 1500 | 30 | 2000 | × | × | × | | × |
| **32.0011P2000-UR** | PV-KST4/2,5I-UR | | × | 5.0 – 6.0 | 4.0 | 2.5 | 1100 | 22.5 | 14 | 1500 | 30 | 2000 | × | × | × | | × |
| **32.0140P2000-UR** | PV-KBT4/2,5X-UR | × | | 5.5 – 7.4 | 4.0 | 2.5 | 1100 | 22.5 | 14 | 1500 | 30 | 2000 | × | × | × | | × |
| **32.0141P2000-UR** | PV-KST4/2,5X-UR | | × | 5.5 – 7.4 | 4.0 | 2.5 | 1100 | 22.5 | 14 | 1500 | 30 | 2000 | × | × | × | | × |
| **32.0012P2000-UR** | PV-KBT4/2,5II-UR | × | | 7.0 – 8.8 | 4.0 | 2.5 | 1100 | 22.5 | 14 | 1500 | 30 | 2000 | × | × | × | × | × |
| **32.0013P2000-UR** | PV-KST4/2,5II-UR | | × | 7.0 – 8.8 | 4.0 | 2.5 | 1100 | 22.5 | 14 | 1500 | 30 | 2000 | × | × | × | × | × |
| **32.0014P2000-UR** | PV-KBT4/6I-UR | × | | 5.0 – 6.0 | 5.8 | 4<br>6 | 1100<br>1100 | 39<br>39 | 12<br>10 | 1500<br>1500 | 35<br>50 | 2000 | × | × | × | | × |
| **32.0015P2000-UR** | PV-KST4/6I-UR | | × | 5.0 – 6.0 | 5.8 | 4<br>6 | 1100<br>1100 | 39<br>39 | 12<br>10 | 1500<br>1500 | 35<br>50 | 2000 | × | × | × | | × |
| **32.0142P2000-UR** | PV-KBT4/6X-UR | × | | 5.5 – 7.4 | 5.8 | 4<br>6 | 1100<br>1100 | 39<br>39 | 12<br>10 | 1500<br>1500 | 35<br>50 | 2000 | × | × | × | | × |
| **32.0143P2000-UR** | PV-KST4/6X-UR | | × | 5.5 – 7.4 | 5.8 | 4<br>6 | 1100<br>1100 | 39<br>39 | 12<br>10 | 1500<br>1500 | 35<br>50 | 2000 | × | × | × | | × |
| **32.0016P2000-UR** | PV-KBT4/6II-UR | × | | 7.0 – 8.8 | 5.8 | 4<br>6 | 1100<br>1100 | 39<br>39 | 12<br>10 | 1500<br>1500 | 35<br>50 | 2000 | × | × | × | × | × |

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| Order No. | Type | Socket | Plug | Outer diameter of cable | Width of crimp opening | IEC 62852 | | | UL 6703 | | | Contacts per reel | Approvals | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | A (mm) | b (mm) | $mm^2$ | DC V | A | AWG | DC V | A | | TÜV | cULus | UR | CQC | JET |
| **32.0017P2000-UR** | PV-KST4/6II-UR | | × | 7.0 – 8,8 | 5.8 | 4 | 1100 | 39 | | | | 2000 | × | × | × | × | × |
| | | | | | | 6 | 1100 | 39 | | | | | | | | | |
| | | | | | | | | | 12 | 1500 | 35 | | | | | | |
| | | | | | | | | | 10 | 1500 | 50 | | | | | | |
| **32.0034P1500** | PV-KBT4/10II | × | | 7.0 – 8,8 | 6.5 | 10 | 1000 | 45 | | | | 1500 | × | | | | × |
| **32.0035P1500** | PV-KST4/10II | | × | 7.0 – 8,8 | 6.5 | 10 | 1000 | 45 | | | | 1500 | × | | | | × |

**Note:**
For more detailed information concerning the suitable cable gland range, please consult corresponding assembly instructions (see “Further information”).

**Note:**
Unmated connectors must be protected from any contamination using Stäubli sealing caps. For ordering information concerning Stäubli sealing caps, please consult corresponding catalog (see “Further information”).

## Further information

### Tools and accessories
For related Stäubli tools and accessories please consult:
www.staubli.com/re-downloads.html ➞ English ➞ Catalog ➞ **Tools and accessories**

### Assembly instructions
For assembly instructions for “Female and male cable coupler MC4” please consult:
www.staubli.com/re-downloads.html ➞ English ➞ Assembly info ➞ **MA231**

# Female and male panel receptacle MC4

## As individual part (including insulating part)



Female panel receptacle PV-ADBP4-S2...



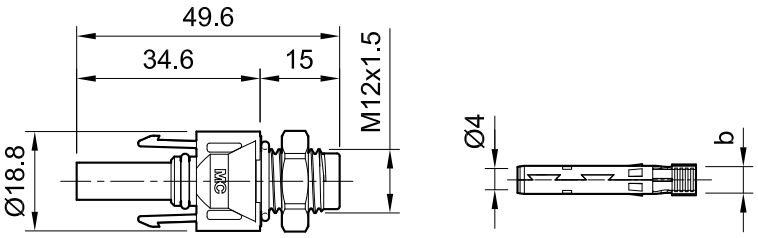

Male panel receptacle PV-ADSP4-S2...

- MC4 panel-receptacle connectors are the interface between an inverter or junction box or junction and a branch cable.
- Mounting directly by means of screw thread or in perforated plate with plastic nut (included in delivery).
- Rapid, precise plugging.
- Protection class (IP65 and IP68) guarantees a high level of tightness.
- To be used with suitable mated connectors from the MC4 product family and suitable lead.
- Includes sealing element for enclosure.

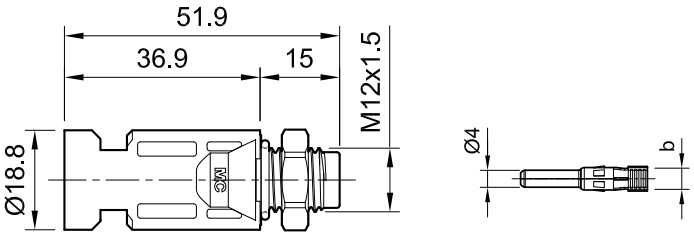
## Technical data

| Technical data | |
|---|---|
| Ambient temperature range | -40 °C...+85 °C (TÜV/UL) |
| Upper limiting temperature | 105 °C |
| Degree of protection, mated | IP65/IP68 (1 m, 1 h) |
| Degree of protection, unmated | IP2X |
| Degree of pollution | 3 |
| Max. contact resistance of the connector | 0.25 mΩ |
| Rated Impulse Voltage | 16 kV |
| Contact system | MULTILAM |
| Type of connection | Crimping |
| Contact material | Copper, tin plated |
| Insulation material | PC/PA |
| Locking system | Locking Type |
| Fire protection class | UL94:V-0 |
| TÜV Rheinland certifications number | R 60127181 |
| UL-File number | E343181 |

## Dimensional drawings




Female panel receptacle PV-ADBP4-S2...




Male panel receptacle PV-ADSP4-S2...

## Ordering information

| Order No. | Type | Socket | Plug | Width of crimp opening | IEC 62852 | | | UL 6703 | | | Approvals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | b (mm) | mm² | DC V | A | AWG | DC V | A | TÜV | UR |
| **32.0076P0001-UR** | PV-ADBP4-S2-UR/2,5 | × | | 4.0 | 1.5 | 1250 | 17.5 | | | | × | × |
| | | | | | 2.5 | 1250 | 22.5 | | | | | |
| | | | | | | | | 14 | 1500 | 30 | | |
| **32.0077P0001-UR** | PV-ADSP4-S2-UR/2,5 | | × | 4.0 | 1.5 | 1250 | 17.5 | | | | × | × |
| | | | | | 2.5 | 1250 | 22.5 | | | | | |
| | | | | | | | | 14 | 1500 | 30 | | |
| **32.0078P0001-UR** | PV-ADBP4-S2-UR/6 | × | | 5.8 | 4 | 1250 | 39 | | | | × | × |
| | | | | | 6 | 1250 | 45 | | | | | |
| | | | | | | | | 12 | 1500 | 35 | | |
| | | | | | | | | 10 | 1500 | 50 | | |
| **32.0079P0001-UR** | PV-ADSP4-S2-UR/6 | | × | 5.8 | 4 | 1250 | 39 | | | | × | × |
| | | | | | 6 | 1250 | 45 | | | | | |
| | | | | | | | | 12 | 1500 | 35 | | |
| | | | | | | | | 10 | 1500 | 50 | | |
| **32.0150P0001** | PV-ADBP4-S2/10 | × | | 6.5 | 10 | 1250 | 51 | | | | × | |
| **32.0151P0001** | PV-ADSP4-S2/10 | | × | 6.5 | 10 | 1250 | 51 | | | | × | |

**Note:**
For more detailed information concerning the suitable cable gland range, please consult corresponding assembly instructions (see “Further information”).

**Note:**
Unmated connectors must be protected from any contamination using Stäubli sealing caps. For ordering information concerning Stäubli sealing caps, please consult corresponding catalog (see “Further information”).

## Further information

**Tools and accessories**
For related Stäubli tools and accessories please consult:
www.staubli.com/re-downloads.html ➞ English ➞ Catalog ➞ **Tools and accessories**

**Assembly instructions**
For assembly instructions for “Female and male panel receptacle MC4” please consult:
www.staubli.com/re-downloads.html ➞ English ➞ Assembly info ➞ **MA275**

# Female and male panel receptacle MC4

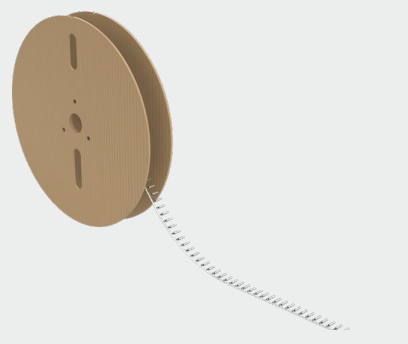
## Open crimp contacts on carrier band (including insulating part)



Female panel receptacle PV-ADBP4-S2...




Male panel receptacle PV-ADSP4-S2...



Reel with contacts

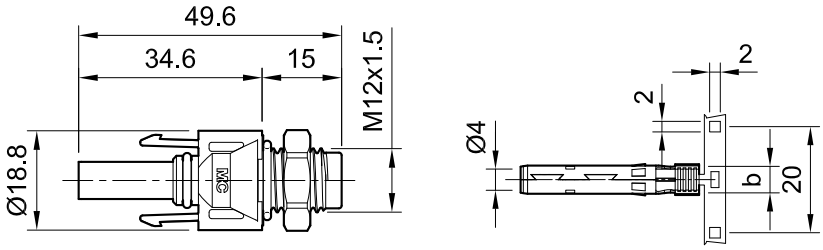
- MC4 panel-receptacle connectors are the interface between an inverter or junction box or junction and a branch cable.
- Mounting directly by means of screw thread or in perforated plate with plastic nut (included in delivery).
- Rapid, precise plugging.
- Protection class (IP65 and IP68) guarantees a high level of tightness.
- To be used with suitable mated connectors from the MC4 product family and suitable lead.
- Includes sealing element for enclosure.

## Technical data

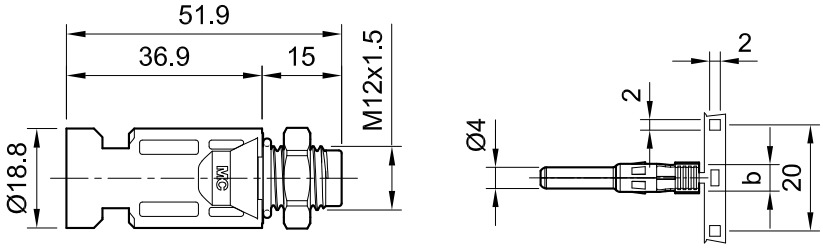
| Technical data | |
|---|---|
| Ambient temperature range | -40 °C...+85 °C |
| Upper limiting temperature | 105 °C |
| Degree of protection, mated | IP65/IP68 (1 m, 1 h) |
| Degree of protection, unmated | IP2X |
| Degree of pollution | 3 |
| Max. contact resistance of the connector | 0.25 mΩ |
| Rated Impulse Voltage | 16 kV |
| Contact system | MULTILAM |
| Type of connection | Crimping |
| Contact material | Copper, tin plated |
| Insulation material | PC/PA |

| Technical data | |
|---|---|
| Locking system | Locking Type |
| Fire protection class | UL94:V-0 |
| TÜV Rheinland certifications number | R 60127181 |
| UL-File number | E343181 |

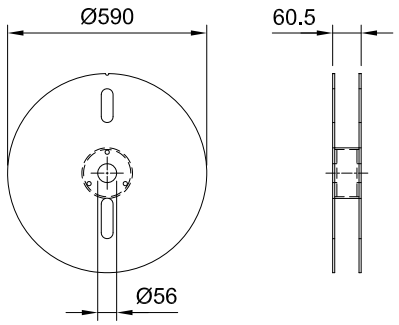
## Dimensional drawings




Female panel receptacle PV-ADBP4-S2...




Male panel receptacle PV-ADSP4-S2...




Reel with contacts

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## Ordering information

| Order No. | Type | Socket | Plug | Width of crimp opening | IEC 62852 | | | UL 6703 | | | Contacts per reel | Approvals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | b (mm) | mm² | DC V | A | AWG | DC V | A | | TÜV | UR |
| **32.0076P2000-UR** | PV-ADBP4-S2-UR/2,5 | × | | 4.0 | 1.5 | 1250 | 17.5 | | | | 2000 | × | × |
| | | | | | 2.5 | 1250 | 22.5 | | | | | | |
| | | | | | | | | 14 | 1500 | 30 | | | |
| **32.0077P2000-UR** | PV-ADSP4-S2-UR/2,5 | | × | 4.0 | 1.5 | 1250 | 17.5 | | | | 2000 | × | × |
| | | | | | 2.5 | 1250 | 22.5 | | | | | | |
| | | | | | | | | 14 | 1500 | 30 | | | |
| **32.0078P2000-UR** | PV-ADBP4-S2-UR/6 | × | | 5.8 | 4 | 1250 | 39 | | | | 2000 | × | × |
| | | | | | 6 | 1250 | 45 | | | | | | |
| | | | | | | | | 12 | 1500 | 35 | | | |
| | | | | | | | | 10 | 1500 | 50 | | | |
| **32.0079P2000-UR** | PV-ADSP4-S2-UR/6 | | × | 5.8 | 4 | 1250 | 39 | | | | 2000 | × | × |
| | | | | | 6 | 1250 | 45 | | | | | | |
| | | | | | | | | 12 | 1500 | 35 | | | |
| | | | | | | | | 10 | 1500 | 50 | | | |
| **32.0150P1500** | PV-ADBP4-S2/10 | × | | 6.5 | 10 | 1250 | 51 | | | | 1500 | × | |
| **32.0151P1500** | PV-ADSP4-S2/10 | | × | 6.5 | 10 | 1250 | 51 | | | | 1500 | × | |

## Further information

### Tools and accessories

For related Stäubli tools and accessories please consult:
www.staubli.com/re-downloads.html ➞ English ➞ Catalog ➞ **Tools and accessories**

### Assembly instructions

For assembly instructions for “Female and male panel receptacle MC4” please consult:
www.staubli.com/re-downloads.html ➞ English ➞ Assembly info ➞ **MA275**

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