Datasheet
TERMSERIES Interface Adapter (TIA)

NEW

Extensive wiring complexity leads to high throughput times in electrical cabinets. Thanks to our TERMSERIES interface adapter, you benefit from the speed of our plug-and-play solution. Let’s connect.

To reduce wiring times, pre-assembled lines are used between the controller and interface level and are simply connected to the TERMSERIES adapter. This enables electrical cabinet throughput times to be significantly reduced.

Our pre-assembled plug-and-play solution with TERMSERIES interface adapter minimizes wiring complexity. The adapter has a universal fit and offers a genuine space advantage in conjunction with TERMSERIES products with identical contours.

Thanks to its symmetrical structure, the adapter can be connected to both TERMSERIES coil and contact connections. The use of positive (PNP) and negative (NPN) switching logic is also possible for the lower level with the aid of the potential changeover switch.
Reliable and unambiguous wiring
Installation is unambiguous and safe thanks to practical marking of the connections, assignment of the contacts and the option of individual marking using MultiCard.

Fast supply and bridging of the auxiliary voltage
Quick and safe supply of the auxiliary voltage as a result of the TOP connection with "PUSH IN" technology. Simple bridging is also possible thanks to duplication of the connections.

Connection to a variety of controllers
The standardized ribbon cable plug-in connections enable connection of all the interface system’s pre-assembled cable types.

Both types of logic with one device
The potential switch for the lower level allows the adapter for plus and minus switching logic to be used (PNP/NPN).

Connection with our remote I/O system u-remote
Use our perfectly matched cable harness for connecting our u-remote DI/DO sub assemblies and TERMSERIES relays.

TERMSERIES Interface Adapter (TIA)
Applications
The TIA can be used together with TERMSERIES relay and optocoupler products, resulting in substantial space-savings. Its symmetrical design means the TIA can be plugged onto both the TERMSERIES input coil connections and/or output contact connections.

The TIA’s new contact system creates a spring-loaded effect, thus guaranteeing reliable contact at all times – even in vibration applications. It visually and audibly snaps into place, providing the user with valuable feedback to indicate secure connection is made into the relay terminal block.

Connections to the u-remote
TIAs can also be combined with Weidmüller’s new remote I/O system (u-remote), connect the u-remote DI/DO sub-assemblies using form-fit cable sets for the TERMSERIES relay adapter.

Connections with Flying Leads
The TIA can be used with a flying lead cable to give flexibility in wiring the relays or optocouplers to another connector location. The cabling solution is a simple, speedy, configurable and space saving means to wire your electrical cabinet.

Connections for PLC Interfaces
The TIA and cabling solutions can also be used to create simple, easy and accurate connection solutions for many PLC manufacturers’ products. See Catalog 4.5 Interface Units & PLC Solutions for a listing of these solutions.
**TERMSERIES adapters**

- Suitable for input and output logic
- Version for 6.4 mm TERMSERIES base
- Supply connections (PUSH IN) designed double for simple supply voltage bridging
- User-friendly and unique markings
- 10-pole connecting plug according to DIN EN 60603-13

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**Technical data**

<table>
<thead>
<tr>
<th>Supply</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage</td>
<td>24 V DC ± 20%</td>
</tr>
<tr>
<td>Status display</td>
<td>Green LED</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Signals</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage</td>
<td>24 V DC</td>
</tr>
<tr>
<td>Voltage, max.</td>
<td>30 V DC</td>
</tr>
<tr>
<td>Current (per signal path)</td>
<td>100 mA</td>
</tr>
<tr>
<td>Current (per signal path), max.</td>
<td>1 A</td>
</tr>
<tr>
<td>Total current of all signals, max.</td>
<td>1 A</td>
</tr>
<tr>
<td>Number of signal paths</td>
<td>1</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Connection data (supply)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wire connection method</td>
<td>PUSH IN</td>
</tr>
<tr>
<td>Clamping range, rated connection, min.</td>
<td>0.13 mm²</td>
</tr>
<tr>
<td>Clamping range, rated connection, max.</td>
<td>1.5 mm²</td>
</tr>
<tr>
<td>Number of terminals</td>
<td>4 (+,+,-,-)</td>
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</table>

**Connection data (signal)**

<table>
<thead>
<tr>
<th>Plug type</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>10-pole plug according to DIN EN 60603-13, long locking lever</td>
<td></td>
</tr>
</tbody>
</table>

**General data**

| Ambient temperature (operational) | -40°C...+60°C |
| Storage temperature               | -40°C...+85°C |
| Humidity                         | 5...95% (indoor), Tₚ = 40°C, no condensation |
| UL 94 flammability rating        | V-0           |
| cULus Listed, GL, CE             |                |

**Insulation coordination**

| Overvoltage category | III  |
| Protection degree    | IP 20 |
| Dimensions           | 62 / 51 / 43 mm |

**Agency Approvals**

| Dimensions           | 62 / 51 / 43 mm |

**Installation input**

**Installation output**

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**Accessories**

<table>
<thead>
<tr>
<th>Cables</th>
<th>Description</th>
<th>Length</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 pin to flying ferruled leads</td>
<td>SP-CBL-TIAU-10-F 0.5 M</td>
<td>0.5 m</td>
<td>6720000960</td>
</tr>
<tr>
<td>10 pin to flying ferruled leads</td>
<td>SP-CBL-TIAU-10-F 1.0 M</td>
<td>1.0 m</td>
<td>6720000966</td>
</tr>
<tr>
<td>10 pin to flying ferruled leads</td>
<td>SP-CBL-TIAU-10-F 2 M</td>
<td>2.0 m</td>
<td>6720000967</td>
</tr>
<tr>
<td>10 pin to 10 pin connectors</td>
<td>SP-CBL-TIAU-10-10 0.5 M</td>
<td>0.5 m</td>
<td>6720000960</td>
</tr>
<tr>
<td>10 pin to 10 pin connectors</td>
<td>SP-CBL-TIAU-10-10 1 M</td>
<td>1.0 m</td>
<td>6720000961</td>
</tr>
<tr>
<td>10 pin to 10 pin connectors</td>
<td>SP-CBL-TIAU-10-10 2 M</td>
<td>2.0 m</td>
<td>6720000962</td>
</tr>
<tr>
<td>Note</td>
<td>other lengths available upon request and see page 8 for additional cables</td>
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**Technical data**

<table>
<thead>
<tr>
<th>Type</th>
<th>Qty</th>
<th>Part No.</th>
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<tbody>
<tr>
<td>TIA F10</td>
<td>1</td>
<td>1463520000</td>
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</tbody>
</table>

**Suitable for 6.4 mm wide TERMSERIES base**
TERMSERIES adapters

- Suitable for input and output logic
- Version for 12.8 mm TERMSERIES base
- Supply connections (PUSH IN) designed double for simple supply voltage bridging
- User-friendly and unique markings
- 10-pole connecting plug according to DIN EN 60603-13

**Technical data**

**Supply**
- Supply voltage
- Status display

**Signals**
- Rated voltage
- Voltage, max.
- Rated current (per signal path)
- Current (per signal path), max.
- Total current of all signals, max.
- Number of signal paths

**Connection data (supply)**
- Wire connection method
- Clamping range, rated connection, min.
- Clamping range, rated connection, max.
- Number of terminals

**Connection data (signal)**
- Plug type

**General data**
- Ambient temperature (operational)
- Storage temperature
- Humidity
- UL 94 flammability rating
- Agency Approvals
- Insulation coordination
- Pollution degree
- Overvoltage category
- Impulse withstand voltage
- Rated voltage
- Protection degree

**Dimensions**
- Depth x width x height

**Note**

**Ordering data**

**Type**
- TIAL F10

**Qty.**
- 1

**Part No.**
- 1463540000

Suitable for 12.8 mm wide TERMSERIES base

**Accessories**

**Cables**
- 10 pin to flying ferruled leads
- SP-CBL-TIAU-10-F
- Description: 0.5M, Length: 0.5 m, Part No.: 6720000965
- 10 pin to flying ferruled leads
- SP-CBL-TIAU-10-F
- Description: 1M, Length: 1.0 m, Part No.: 6720000966
- 10 pin to 10 pin connectors
- SP-CBL-TIAU-10-F
- Description: 2M, Length: 2.0 m, Part No.: 6720000967
- 10 pin to 10 pin connectors
- SP-CBL-TIAU-10-10.5M
- Description: 0.5 m, Part No.: 6720000960
- 10 pin to 10 pin connectors
- SP-CBL-TIAU-10-10
- Description: 1M, Length: 1.0 m, Part No.: 6720000961
- 10 pin to 10 pin connectors
- SP-CBL-TIAU-10-10
- Description: 2M, Length: 2.0 m, Part No.: 6720000962

**Note**
- other lengths available upon request and see page 8 for additional cables.

**Potential change-over switch**

The potential change-over switch is located between contact rows of the TERMSERIES adapter. It is used to switch the potential of the lower contact row to ‘+’ or ‘-’ potential of the supply voltage.

**Installation input**

**Figure 1a:** Positive-switching logic (PNP): Potential change-over switch to ‘+’, installation on 24 V DC input (A1/A2).
**Figure 1b:** Negative-switching logic (NPN): Potential change-over switch to ‘-’, installation on ONLY 24 V UC units.

**Installation output**

**Figure 2a:** Positive-switching logic (sourced loads): Potential change-over switch to ‘+’, installation on output (11/14).
**Figure 2b:** Negative-switching logic (sunked loads): Potential change-over switch to ‘-’, installation on output (11/14).
**TERMSERIES adapters**

- Suitable for input and output logic
- Version for 6.4 mm TERMSERIES base
- Supply connections (PUSH IN) designed double for simple supply voltage bridging
- User-friendly and unique markings
- 20-pole connecting plug according to DIN EN 60603-13

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### Technical data

#### Supply
- Supply voltage
- Status display

#### Signals
- Rated voltage
- Voltage, max.
- Rated current (per signal path)
- Current (per signal path), max.
- Total current of all signals, max.
- Number of signal paths

### Connection data (supply)
- Wire connection method
- Clamping range, rated connection, min.
- Clamping range, rated connection, max.
- Number of terminals

### Connection data (signal)
- Plug type

#### General data
- Ambient temperature (operational)
- Storage temperature
- Humidity
- UL 94 flammability rating
- Agency Approvals

#### Insulation coordination
- Pollution degree
- Overvoltage category
- Impulse withstand voltage
- Rated voltage
- Protection degree

#### Dimensions
- Depth x width x height mm

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### Ordering data

#### Type
- TIAL F20

#### Qty.
- 1

#### Part No.
- 1463550000

Note

- Suitable for 6.4 mm wide TERMSERIES base

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### Accessories

#### Cables
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<th>Part No.</th>
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<td>20 pin to flying ferruled leads</td>
<td>0.5M</td>
<td>672000950</td>
</tr>
<tr>
<td>20 pin to flying ferruled leads</td>
<td>2M</td>
<td>672000952</td>
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<tr>
<td>20 pin to 20 pin connectors</td>
<td>0.5M</td>
<td>672000946</td>
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<tr>
<td>20 pin to 20 pin connectors</td>
<td>2M</td>
<td>672000947</td>
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</tbody>
</table>

Note

- Other lengths available upon request and see page 8 for additional cables

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**Potential change-over switch**

The potential change-over switch is located between contact rows of the TERMSERIES adapter. It is used to switch the potential of the lower contact row to "+" or "-" potential of the supply voltage.

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**Installation input**

**Installation output**

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**Figure 1a:** Positive-switching logic (PNP): Potential change-over switch to "-", installation on 24 V DC input (A1/A2).

**Figure 1b:** Negative-switching logic (NPN): Potential change-over switch to "+", installation on 24 DC units.

**Figure 2a:** Positive-switching logic (sourced loads): Potential change-over switch to "+", installation on output (11/14).

**Figure 2b:** Negative-switching logic (sunk loads): Potential change-over switch to "-", installation on output (11/14).
**TERMSERIES adapters**

- Suitable for input and output logic
- Version for 6.4 mm TERMSERIES base
- User-friendly and unique markings
- 15-pole sub-D plug according to DIN 41652 / IEC 60807

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**TIA SUBD 15S**

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**Technical data**

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<thead>
<tr>
<th>Supply</th>
<th>Status display</th>
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</thead>
<tbody>
<tr>
<td>Supply voltage</td>
<td>Status display</td>
</tr>
<tr>
<td>Signals</td>
<td>Rated voltage</td>
</tr>
<tr>
<td>Voltage, max.</td>
<td>Voltage, max.</td>
</tr>
<tr>
<td>Rated current (per signal path)</td>
<td>Current (per signal path), max.</td>
</tr>
<tr>
<td>Total current of all signals, max.</td>
<td>Total current of all signals, max.</td>
</tr>
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</table>

**Connection data (supply)**

<table>
<thead>
<tr>
<th>Wire connection method</th>
<th>Clamping range, rated connection, min.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clamping range, rated connection, max.</td>
<td>Number of terminals</td>
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</table>

**Connection data (signal)**

<table>
<thead>
<tr>
<th>Plug type</th>
<th>General data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient temperature (operational)</td>
<td>Storage temperature</td>
</tr>
<tr>
<td>Humidity</td>
<td>UL 94 flammability rating</td>
</tr>
<tr>
<td>Agency Approvals</td>
<td>Insulation coordination</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>Overvoltage category</td>
</tr>
<tr>
<td>Impulse withstand voltage</td>
<td>Rated voltage</td>
</tr>
<tr>
<td>Protection degree</td>
<td>Dimensions</td>
</tr>
<tr>
<td>Depth x width x height (mm)</td>
<td>Note</td>
</tr>
</tbody>
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**Ordering data**

<table>
<thead>
<tr>
<th>Type</th>
<th>Qty</th>
<th>Part No.</th>
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</thead>
<tbody>
<tr>
<td>TIA SUBD 15S</td>
<td>1</td>
<td>1463530000</td>
</tr>
</tbody>
</table>

Note: Suitable for 6.4 mm wide TERMSERIES base

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**Accessories**

<table>
<thead>
<tr>
<th>Cables</th>
<th>Description</th>
<th>Length</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 to flying ferruled leads</td>
<td>PAC-UNIV-D15M-F-1M</td>
<td>1.0 m</td>
<td>1350420010</td>
</tr>
</tbody>
</table>

Note: other lengths available upon request. These cables do not have CSA or UL approval.

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**Potential change-over switch**

The potential change-over switch is located between contact rows of the TERMSERIES adapter. It is used to switch the potential of the lower contact row to “+” or “-“ potential of the supply voltage.

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**Installation input**

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**Installation output**

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**Figure 1a**: Positive-switching logic (PNP): Potential change-over switch to “-“, installation on 24 V DC input (A1/A2).

**Figure 1b**: Negative-switching logic (NPN): Potential change-over switch to “+“, installation on ONLY 24 V UC units.

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**Figure 2a**: Positive-switching logic (sourced loads): Potential change-over switch to “+“, installation on output (11/14).

**Figure 2b**: Negative-switching logic (sinked loads): Potential change-over switch to “-“, installation on output (11/14).

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**15 Pin D Sub to Flying Ferruled Leads**
**CSA/UL Recognized Cables and Connectors**

**Physical Characteristics**

- **Conductor**: #22 AWG 7/30 Tinned Copper, 0.030" nom. diameter
- **Insulation**: 0.010" Wall Semi-Rigid Polyvinyl Chloride, 0.050" nom. diameter
- **Cable**: 20 conductors @ 4.5” LHL with mylar wrap, 0.270" nom. diameter
- **Jacket**: 0.032" Wall Polyvinyl Chloride, 0.334" +/- 0.017” diameter

**Electrical Characteristics**

- **Temperature**: 75°C
- **Suggested Working Voltage (Vrms)**: 300Vrms
- **Conductor D.C. Resistance**: 16.6 Ohms/1000 ft nom
- **Mutual Capacitance**: 24.5 pF/ft @ 1kHz nom

**Approvals**

- National Electrical Code, Article 800
- UL Standard 444, Type CM
- UL Standard 758, AWM Style 2464
- CSA International, Type CMG
- RoHS Compliant, Directive 2002/95/EC

**Color Code**

- 1 Black
- 2 White
- 3 Red
- 4 Lt. Green
- 5 Orange
- 6 Blue
- 7 White/Black
- 8 Red/Black
- 9 Green/Black
- 10 Orange/Black
- 11 Blue/Black
- 12 Black/White
- 13 Red/White
- 14 Green/White
- 15 Blue/White
- 16 Black/Red
- 17 White/Red
- 18 Orange/Red
- 19 Blue/Red
- 20 Red/Green

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**Ordering Data**

<table>
<thead>
<tr>
<th>Description</th>
<th>Length*</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 pin to flying ferruled leads</td>
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</tr>
<tr>
<td>0.5 m SP-CBL-TIAU-10-F 0.5M</td>
<td>6720000985</td>
<td></td>
</tr>
<tr>
<td>1.0 m SP-CBL-TIAU-10-F 1M</td>
<td>6720000986</td>
<td></td>
</tr>
<tr>
<td>2.0 m SP-CBL-TIAU-10-F 2M</td>
<td>6720000987</td>
<td></td>
</tr>
<tr>
<td>3.0 m SP-CBL-TIAU-10-F 3M</td>
<td>6720000988</td>
<td></td>
</tr>
<tr>
<td>5.0 m SP-CBL-TIAU-10-F 5M</td>
<td>6720000989</td>
<td></td>
</tr>
<tr>
<td>10 pin connector to 10 pin connector (1:1)</td>
<td>0.5 m SP-CBL-TIAU-10-10 0.5M</td>
<td>6720000960</td>
</tr>
<tr>
<td></td>
<td>1.0 m SP-CBL-TIAU-10-10 1M</td>
<td>6720000961</td>
</tr>
<tr>
<td></td>
<td>2.0 m SP-CBL-TIAU-10-10 2M</td>
<td>6720000962</td>
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<tr>
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<td>3.0 m SP-CBL-TIAU-10-10 3M</td>
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<td>5.0 m SP-CBL-TIAU-10-10 5M</td>
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<tr>
<td>20 pin to flying ferruled leads</td>
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<td>1.0 m SP-CBL-TIAU-20-F 1M</td>
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<td>2.0 m SP-CBL-TIAU-20-F 2M</td>
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<td>5.0 m SP-CBL-TIAU-20-F 5M</td>
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<td>1.0 m SP-CBL-TIAU-20-20 1M</td>
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<td>5.0 m SP-CBL-TIAU-20-20 5M</td>
<td>6720000949</td>
</tr>
<tr>
<td>20 pin to 2 x 10 pin connectors</td>
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<td>6720000955</td>
</tr>
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<td></td>
<td>1.0 m SP-CBL-TIAU-20-2X10 1M</td>
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<tr>
<td></td>
<td>5.0 m SP-CBL-TIAU-20-2X10 5M</td>
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**Note**

*other lengths available upon request*