VALVE CONNECTORS
MORE MODELS THAN EVER
- Molded construction – resistant to shock and vibration
- Tested to ensure reliability
- IP65 to IP67 Rated

THE CONNECTOR FOR VALVES AND PRESSURE SWITCHES
25 years ago, Murrelektronik developed and produced the first pre-wired and molded valve connector. It was a revolution! Now, more than ever, Murrelektronik’s valve plugs enjoy long-running success as a result of continuous improvement. A captive gasket, integrated LED status indicator and suppression are the top features of Murrelektronik’s MSUD valve plug.

With Open Ended Wires
- Junior Three Valve Connector
  - 2 pole
    - Straight

Connection Cable
- MSUD Double Valve Connector
  - With connection cable
    - Form A
    - Form B
    - Form C
- MS2 male
  - 2 pole
    - Straight

Field Writable
- Sensor Terminals
- SXS Valve Connector
  - Form A
  - Form B

Insulation displacement technology
- MSUG Valve Connector
  - Form C
  - Form D

Page 3.03.02
Page 3.03.04
Page 3.03.06
Page 3.03.08
Page 3.03.10
Page 3.03.12
# VALVE CONNECTORS

## MSUD
- with open ended wire

![MSUD Diagram]

### Approvals
- CE
- UL

## Form A (18 mm)

<table>
<thead>
<tr>
<th>Type</th>
<th>18001</th>
<th>18021</th>
<th>18041</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Cable Length
- 1.5 m
- 3.0 m
- 5.0 m
- 7.5 m
- 10.0 m

### Technical Data
- Operating voltage: 24 VAC/DC, 25 %
- Insulation: MIL and VITRON plugged and screwed down (EM 0853)
- Temp. range: -25...+60°C, depending on cable quality

## Article No.
- The composition of your article number is explained on page 3.61

<table>
<thead>
<tr>
<th>Form</th>
<th>Cable Type</th>
<th>Cable Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>7000</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Notes**
- Other versions on request. Offsetting cable lengths up to 2 m can be ordered in 6.25 m steps, from 2 m in 5.0 m steps.
### VALVE CONNECTORS

#### MSUD
- with open ended wires
- for pressure switches

#### Form A (18 mm)

<table>
<thead>
<tr>
<th>Form</th>
<th>Type</th>
<th>Circuit Diagram</th>
<th>LED and suppression</th>
<th>Contact layout</th>
</tr>
</thead>
<tbody>
<tr>
<td>18061</td>
<td>230 V AC/DC</td>
<td><img src="image1" alt="Circuit Diagram" /></td>
<td><img src="image2" alt="LED and suppression" /></td>
<td><img src="image3" alt="Contact layout" /></td>
</tr>
<tr>
<td>18081</td>
<td>3...380 V AC/DC</td>
<td><img src="image4" alt="Circuit Diagram" /></td>
<td><img src="image5" alt="LED and suppression" /></td>
<td><img src="image6" alt="Contact layout" /></td>
</tr>
</tbody>
</table>

#### Cable Type

<table>
<thead>
<tr>
<th>Wire Diameter 0.75 mm²</th>
<th>0.56</th>
<th>0.66</th>
<th>0.66</th>
<th>0.63</th>
<th>0.66</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC</td>
<td>0.56</td>
<td>0.66</td>
<td>0.66</td>
<td>0.63</td>
<td>0.66</td>
</tr>
<tr>
<td>PUR/TPX</td>
<td>0.56</td>
<td>0.66</td>
<td>0.66</td>
<td>0.63</td>
<td>0.66</td>
</tr>
<tr>
<td>PUR/TPX/USA</td>
<td>0.56</td>
<td>0.66</td>
<td>0.66</td>
<td>0.63</td>
<td>0.66</td>
</tr>
<tr>
<td>PUR/TPX/LSA</td>
<td>0.56</td>
<td>0.66</td>
<td>0.66</td>
<td>0.63</td>
<td>0.66</td>
</tr>
</tbody>
</table>

#### Cable Length

- 1.5 m: 0550
- 5.0 m: 0600
- 7.5 m: 0750
- 10.0 m: 1000

#### Technical Data
- Operating Voltage: 230 V AC/DC ±10 %
- Max. 230 V AC/DC
- Protection: IP65 and IP67 when plugged in screwed down (EN 60529)
- Temperature range: -25...60°C, depending on cable quality

#### Article No.

- The composition of your article number is explained on page 3.31

| 7000 | - | - | - | - | - |

#### Notes
- Other versions on request. Offsetting cable lengths up to 2 m can be ordered in 2 m steps, from 2 m in 0.5 m steps
### VALVE CONNECTORS

**MSUD**
- with open ended wires

#### Form B (10 mm)

<table>
<thead>
<tr>
<th>1</th>
<th>Form</th>
<th>2</th>
<th>Cable Type</th>
<th>3</th>
<th>Cable Length</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td>24 V AC/DC</td>
<td>24 V AC/DC</td>
<td>120 V AC/DC</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Circuit diagram</strong></td>
<td><img src="Diagram1" alt="Diagram" /></td>
<td><img src="Diagram2" alt="Diagram" /></td>
<td><img src="Diagram3" alt="Diagram" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Contact layout</strong></td>
<td><img src="Layout1" alt="Layout" /></td>
<td><img src="Layout2" alt="Layout" /></td>
<td><img src="Layout3" alt="Layout" /></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Jacket Color</strong></td>
<td>yellow</td>
<td>grey</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Jacket Color</strong></td>
<td>grey</td>
<td>yellow</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Jacket Color</strong></td>
<td>black</td>
<td>grey</td>
<td>yellow</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Technical Data</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Article No.</strong></td>
<td>7000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Notes** | Other versions on request. Different cable lengths up to 2 m can be ordered in 2 m steps, from 2 m in 0.5 m steps.

#### Form B (10 mm)

<table>
<thead>
<tr>
<th>1</th>
<th>Form</th>
<th>2</th>
<th>Cable Type</th>
<th>3</th>
<th>Cable Length</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td>0...240 V AC/DC</td>
<td>24 V AC/DC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Circuit diagram</strong></td>
<td><img src="Diagram1" alt="Diagram" /></td>
<td><img src="Diagram2" alt="Diagram" /></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Contact layout</strong></td>
<td><img src="Layout1" alt="Layout" /></td>
<td><img src="Layout2" alt="Layout" /></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Jacket Color</strong></td>
<td>yellow</td>
<td>grey</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Jacket Color</strong></td>
<td>grey</td>
<td>yellow</td>
<td>black</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Jacket Color</strong></td>
<td>black</td>
<td>grey</td>
<td>yellow</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Technical Data</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Article No.</strong></td>
<td>7000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Notes</strong></td>
<td>Other versions on request. Different cable lengths up to 2 m can be ordered in 2 m steps, from 2 m in 0.5 m steps.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## VALVE CONNECTORS

### Form Bi (11 mm)
- Industrial standard

#### MSUD
- with open ended wires

### Approvals

#### 1. Form

<table>
<thead>
<tr>
<th>Type</th>
<th>11001</th>
<th>11021</th>
<th>11041</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 V AC/DC</td>
<td>LCD</td>
<td>LED and suppression</td>
<td>LED and suppression</td>
</tr>
</tbody>
</table>

#### Circuit diagram

- Component: 1
- Component: 2
- Component: 3
- Component: 4

#### Contact layout

#### 2. Cable Type

<table>
<thead>
<tr>
<th>Wire Diameter 0.75 mm²</th>
<th>Jacket Color</th>
<th>Jacket Color</th>
<th>Jacket Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC</td>
<td>yellow</td>
<td>yellow</td>
<td>yellow</td>
</tr>
<tr>
<td>PUR/PVC</td>
<td>grey</td>
<td>black</td>
<td>black</td>
</tr>
<tr>
<td>PUR/PUR/LSA, welding splices</td>
<td>grey</td>
<td>black</td>
<td>black</td>
</tr>
</tbody>
</table>

#### 3. Cable Length

<table>
<thead>
<tr>
<th>Cable Length</th>
<th>1.5 m</th>
<th>3.0 m</th>
<th>5.0 m</th>
<th>10.0 m</th>
<th>15.0 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>0900</td>
<td>0900</td>
<td>0900</td>
<td>0870</td>
<td>0830</td>
</tr>
</tbody>
</table>

### Technical Data

- Operating voltage: 24 V AC/DC, 15 %
- Technical Data: 24 V AC/DC, 20 %
- Temperature range: 55 - 85°C, depending on cable quality

### Article No.

<table>
<thead>
<tr>
<th>Article No.</th>
<th>0800</th>
</tr>
</thead>
</table>

The composition of your article number is explained on page 3.1.

---

### Form Bi (11 mm)
- Industrial standard

#### MSUD
- with open ended wires

### Approvals

#### 1. Form

<table>
<thead>
<tr>
<th>Type</th>
<th>11061</th>
<th>11081</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 200 V AC/DC</td>
<td>LED and suppression</td>
<td>LED and suppression</td>
</tr>
</tbody>
</table>

#### Circuit diagram

- Component: 1
- Component: 2
- Component: 3
- Component: 4

#### Contact figure

#### Contact Layout

#### 2. Cable Type

<table>
<thead>
<tr>
<th>Wire Diameter 0.75 mm²</th>
<th>Jacket Color</th>
<th>Jacket Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC</td>
<td>yellow</td>
<td>yellow</td>
</tr>
<tr>
<td>PUR/PVC</td>
<td>grey</td>
<td>grey</td>
</tr>
<tr>
<td>PUR/PUR/LSA, welding splices</td>
<td>grey</td>
<td>grey</td>
</tr>
</tbody>
</table>

#### 3. Cable Length

<table>
<thead>
<tr>
<th>Cable Length</th>
<th>1.5 m</th>
<th>3.0 m</th>
<th>5.0 m</th>
<th>10.0 m</th>
<th>15.0 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>0900</td>
<td>0900</td>
<td>0900</td>
<td>0870</td>
<td>0830</td>
</tr>
</tbody>
</table>

### Technical Data

- Operating voltage: 230 V AC/DC, 15 %
- Technical Data: 24 V AC/DC, 20 %
- Temperature range: 55 - 85°C, depending on cable quality

### Article No.

<table>
<thead>
<tr>
<th>Article No.</th>
<th>0800</th>
</tr>
</thead>
</table>

The composition of your article number is explained on page 3.1.

---

### Notes

- Other versions on request: Owing to the cable length of 2 m can be ordered in 2 m steps, from 2 m in 0.5 m steps.
### Valve Connectors

**Form C (8 mm)**

**MSUD**
- with open ended wires

#### Cable Dimensions (Ø mm²)

<table>
<thead>
<tr>
<th>Type</th>
<th>0.75</th>
<th>1.00</th>
<th>1.50</th>
<th>2.50</th>
<th>4.00</th>
<th>6.00</th>
<th>10.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC</td>
<td>0.75</td>
<td>1.00</td>
<td>1.50</td>
<td>2.50</td>
<td>4.00</td>
<td>6.00</td>
<td>10.00</td>
</tr>
<tr>
<td>PUR/PUR-LSA</td>
<td>0.75</td>
<td>1.00</td>
<td>1.50</td>
<td>2.50</td>
<td>4.00</td>
<td>6.00</td>
<td>10.00</td>
</tr>
<tr>
<td>PUR/PUR-LSA welding sleeves</td>
<td>0.75</td>
<td>1.00</td>
<td>1.50</td>
<td>2.50</td>
<td>4.00</td>
<td>6.00</td>
<td>10.00</td>
</tr>
</tbody>
</table>

#### Technical Data

- **Operating voltage**: 24 V AC/DC, 50 Hz
- **Temperature range**: -25°C to +85°C, depending on cable quality

#### Notes
- Other versions on request. Different cable lengths up to 2 m can be ordered in 2 m steps, from 2 m in 0.5 m steps.
### Valve Connectors

**MSUD**
- with open ended wires

#### Approvals:
- [CE] [UL] [CSA]

#### Form C (9.4 mm)

Industrial standard

#### Circuit Diagram

- [Image of circuit diagram]

#### Contact Layout

- [Image of contact layout]

#### Cable Type

<table>
<thead>
<tr>
<th>Wire diameter (0.75 mm²)</th>
<th>PVC</th>
<th>PUR/PVC</th>
<th>PUR/UL</th>
<th>PUR/UL/SLA, welding splices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter</td>
<td>0.56</td>
<td>0.56</td>
<td>0.56</td>
<td>0.56</td>
</tr>
<tr>
<td>Length</td>
<td>256</td>
<td>256</td>
<td>256</td>
<td>256</td>
</tr>
<tr>
<td>Diameter</td>
<td>0.64</td>
<td>0.64</td>
<td>0.64</td>
<td>0.64</td>
</tr>
<tr>
<td>Length</td>
<td>256</td>
<td>256</td>
<td>256</td>
<td>256</td>
</tr>
<tr>
<td>Diameter</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
</tr>
<tr>
<td>Length</td>
<td>256</td>
<td>256</td>
<td>256</td>
<td>256</td>
</tr>
<tr>
<td>Diameter</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
<td>0.80</td>
</tr>
<tr>
<td>Length</td>
<td>256</td>
<td>256</td>
<td>256</td>
<td>256</td>
</tr>
<tr>
<td>Diameter</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Length</td>
<td>256</td>
<td>256</td>
<td>256</td>
<td>256</td>
</tr>
</tbody>
</table>

#### Technical Data

- **Operating voltage**: 24 V AC/DC, 10 %
- **Temperature range**: 25...+60 °C, depending on cable quality

#### Article No.

| 7000 | 0160 | 0160 | 0160 | 0160 |
| 2301 | 2301 | 2301 | 2301 | 2301 |
| 3500 | 3500 | 3500 | 3500 | 3500 |
| 0600 | 0600 | 0600 | 0600 | 0600 |
| 0675 | 0675 | 0675 | 0675 | 0675 |
| 1000 | 1000 | 1000 | 1000 | 1000 |

**Notes:**
- Other versions on request. Differring cable lengths up to 2 m can be ordered in 2 m steps, from 2 m in 0.5 m steps.
**Valve Connectors**

---

**Form 1**

- **Type**: 70001
  - 0...20 V AC/DC

- **Circuit Diagram**:

  - [Diagram image]

- **Contact Layout**:

  - [Diagram image]

- **Cable Type**:
  - [Diagram image]

- **Jacket Color**:
  - [Diagram image]

- **Cable Length**:
  - [Diagram image]

---

**Form 2**

- **Type**: 70021
  - 10...30 V AC/DC

- **Circuit Diagram**:

  - [Diagram image]

- **Contact Layout**:

  - [Diagram image]

- **Cable Type**:
  - [Diagram image]

- **Jacket Color**:
  - [Diagram image]

- **Cable Length**:
  - [Diagram image]

---

**Valve Connectors**

---

**Form A (38 mm)**

- **Type**: 58001
  - 24 V AC/DC

- **Circuit Diagram**:

  - [Diagram image]

- **Contact Layout**:

  - [Diagram image]

- **Cable Type**:
  - [Diagram image]

- **Jacket Color**:
  - [Diagram image]

- **Cable Length**:
  - [Diagram image]

---

**Form B (22 mm)**

- **Type**: 58021
  - 24 V AC/DC

- **Circuit Diagram**:

  - [Diagram image]

- **Contact Layout**:

  - [Diagram image]

- **Cable Type**:
  - [Diagram image]

- **Jacket Color**:
  - [Diagram image]

- **Cable Length**:
  - [Diagram image]
## VALVE CONNECTORS

### MSJU-M12
- Connection cables

<table>
<thead>
<tr>
<th>Form A (18 mm)</th>
<th>Male M12 straight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Approvals
- EC

### 1 Form
- Type: 40881
- 24 V AC/DC, M12 (5-pole)

### Circuit Diagram
- LED and suppression

### female Male

### 2 Cable Type
- Jacket Color
  - Wire diameter: 0.75 mm²
  - PVC: yellow, grey, black
  - PUR/TPU: yellow, grey, black
  - PUR/UL/CIA: yellow, grey, black

### Cable Length
- 0.5 m: 0030
- 1 m: 0060
- 1.5 m: 0100
- 2 m: 0150
- 3 m: 0200

### Technical Data
- Operating voltage: 24 V AC/DC ±15 %
- Protection: IP65 and IP66 when plugged in (screw-down/EN60529)
- Temperature range: -25 to +85 °C, depending on cable quality

### Article No.
- The composition of your article number is explained on page 3.81

### Notes
- Other versions on request: Different cable lengths up to 2 m can be ordered in 0.5 m steps, from 2 m in 0.5 m steps.

### 3 Cable Length
- 0.5 m: 0030
- 1 m: 0060
- 1.5 m: 0100
- 2 m: 0150
- 3 m: 0200

### Technical Data
- Operating voltage: 24 V DC ±15 %
- Protection: IP65 and IP66 when plugged in (screw-down/EN60529)
- Temperature range: -25 to +85 °C, depending on cable quality

### Article No.
- The composition of your article number is explained on page 3.81

### Notes
- Other versions on request: Different cable lengths up to 2 m can be ordered in 0.5 m steps, from 2 m in 0.5 m steps.
## VALVE CONNECTORS

### MSUD - M12
- **Connection cables**

<table>
<thead>
<tr>
<th>Form A (10 mm)</th>
<th>Male M12</th>
<th>Male M12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>24 V AC/DC, M12 (3-pole)</td>
<td>24 V AC/DC, M12 (3-pole)</td>
</tr>
<tr>
<td>Circuit diagram</td>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
</tr>
<tr>
<td>Contact layout</td>
<td><img src="image3" alt="Diagram" /></td>
<td><img src="image4" alt="Diagram" /></td>
</tr>
<tr>
<td>Cable Type</td>
<td>Jacket Color</td>
<td>Jacket Color</td>
</tr>
<tr>
<td>PVC</td>
<td>016</td>
<td>026</td>
</tr>
<tr>
<td>PTFE</td>
<td>016</td>
<td>026</td>
</tr>
<tr>
<td>PTFE/LCP</td>
<td>016</td>
<td>026</td>
</tr>
<tr>
<td>PTFE/LCP, welding splicing</td>
<td>016</td>
<td>026</td>
</tr>
<tr>
<td>Cable Length</td>
<td>0.5 m</td>
<td>0.6 m</td>
</tr>
<tr>
<td>Technical Data</td>
<td>Operating voltage</td>
<td>24 V AC, ±10 % / DC, ±25 %</td>
</tr>
<tr>
<td></td>
<td>Temperature range</td>
<td>25°C to 85°C, depending on cable quality</td>
</tr>
</tbody>
</table>

### MSUD - M12
- **Connection cables**

<table>
<thead>
<tr>
<th>Form A (8 mm)</th>
<th>Male M12</th>
<th>Male M12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>24 V AC/DC, M12 (3-pole)</td>
<td>24 V AC/DC, M12 (3-pole)</td>
</tr>
<tr>
<td>Circuit diagram</td>
<td><img src="image5" alt="Diagram" /></td>
<td><img src="image6" alt="Diagram" /></td>
</tr>
<tr>
<td>Contact layout</td>
<td><img src="image7" alt="Diagram" /></td>
<td><img src="image8" alt="Diagram" /></td>
</tr>
<tr>
<td>Cable Type</td>
<td>Jacket Color</td>
<td>Jacket Color</td>
</tr>
<tr>
<td>PVC</td>
<td>016</td>
<td>026</td>
</tr>
<tr>
<td>PTFE</td>
<td>016</td>
<td>026</td>
</tr>
<tr>
<td>PTFE/LCP</td>
<td>016</td>
<td>026</td>
</tr>
<tr>
<td>PTFE/LCP, welding splicing</td>
<td>016</td>
<td>026</td>
</tr>
<tr>
<td>Cable Length</td>
<td>0.5 m</td>
<td>0.6 m</td>
</tr>
<tr>
<td>Technical Data</td>
<td>Operating voltage</td>
<td>24 V AC, ±10 % / DC, ±25 %</td>
</tr>
<tr>
<td></td>
<td>Temperature range</td>
<td>25°C to 85°C, depending on cable quality</td>
</tr>
</tbody>
</table>

### Notes
- Other versions on request, differing cable lengths up to 2 m can be ordered in 0.2 m steps, from 2 m in 0.5 m steps.
### VALVE CONNECTORS

<table>
<thead>
<tr>
<th>MSUD - M12</th>
<th>Form A (18 mm)</th>
<th>Form A (18 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>- Adapter</strong></td>
<td><strong>Top connection</strong></td>
<td><strong>Rear connection</strong></td>
</tr>
</tbody>
</table>

#### Form 41301, 41421

- **Type:** M12 (8-pole)
- **Circuit diagram:** LED and suppression
- **Temperature range:** -25°C to +60°C
- **Protection:** IP67 when plugged and screwed down (EN 60529)

#### Form 41321, 41441

- **Type:** M12 (8-pole)
- **Circuit diagram:** for pressure switcher
- **Temperature range:** -25°C to +60°C
- **Protection:** IP67 when plugged and screwed down (EN 60529)

#### Technical Data

- **Operating voltage:** 24V AC ±20% / DC ±25%
- **Operating current per contact:** max. 4.4A
- **Switching load:** max. 55V
- **Switching capacity:** max. 60V, 5A
- **Protection:** IP67 when plugged and screwed down (EN 60529)

#### Notes

- Other versions on request.

#### Article No.

- 7000 _ _ _ _ _ _ _ _ 00000

---

**Contact layout**

- Female
- Male
## VALVE CONNECTORS

**MSJD - M12**
- Adapter

### Form B (10 mm)
- Top connection

**Form B (10 mm)**
- Rear connection

### Valves

#### Technical Data
- Operating voltage: 24 V AC ±10% / DC ±10%
- Ratings, current per contact: max. 4 A
- Switch off max.: max. 55 V
- Locking of ports: M2 (recommended torque 0.4 Nm)
- Protection: IP67 (plugged and screwed down) (EN 60529)
- Temperature range: -25°C to +60°C

#### Article No.
- 41901
- 41961

#### Contact Layout
- Female
- Male

---

## VALVE CONNECTORS

**MSJD - M12**
- Adapter

### Form B (11 mm)
- Industrial standard
- Top connection

**Form B (11 mm)**
- Rear connection

### Valves

#### Technical Data
- Operating voltage: 24 V AC ±10% / DC ±10%
- Ratings, current per contact: max. 4 A
- Switch off max.: max. 55 V
- Locking of ports: M2 (recommended torque 0.4 Nm)
- Protection: IP67 (plugged and screwed down) (EN 60529)
- Temperature range: -25°C to +60°C

#### Article No.
- 42021
- 42081

#### Contact Layout
- Female
- Male

---

Notes: Other versions on request.

---

The composition of your article number is explained on page 3.1.
### VALVE CONNECTORS

**SVS**
- Fieldwirable
- Convenient connection screw terminals
- For pressure switches

**Approvals**

<table>
<thead>
<tr>
<th>Form</th>
<th>Technical Data</th>
<th>Contact layout</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form A (18 mm):</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td>24...230 V A/DC</td>
<td></td>
</tr>
<tr>
<td><strong>Operating voltage</strong></td>
<td>24...230 V A/DC</td>
<td></td>
</tr>
<tr>
<td><strong>Operating current per contact</strong></td>
<td>4 A</td>
<td></td>
</tr>
<tr>
<td><strong>Contacting elements</strong></td>
<td>2 x red, 1 x green, 1 x yellow</td>
<td></td>
</tr>
<tr>
<td><strong>Contacting elements (cable diameter)</strong></td>
<td>5, 6.8 mm</td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>28 x 45 x 30 mm</td>
<td></td>
</tr>
<tr>
<td><strong>Temperature range</strong></td>
<td>-20...+60°C</td>
<td></td>
</tr>
</tbody>
</table>

**Circuit diagram**

**Contact layout**

---

### VALVE CONNECTORS

**SVS**
- Fieldwirable
- Convenient connection screw terminals
- For pressure switches

**Approvals**

<table>
<thead>
<tr>
<th>Form</th>
<th>Technical Data</th>
<th>Contact layout</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form A (18 mm):</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td>24...230 V A/DC</td>
<td></td>
</tr>
<tr>
<td><strong>Operating voltage</strong></td>
<td>24...230 V A/DC</td>
<td></td>
</tr>
<tr>
<td><strong>Operating current per contact</strong></td>
<td>4 A</td>
<td></td>
</tr>
<tr>
<td><strong>Contacting elements</strong></td>
<td>2 x red, 1 x green, 1 x yellow</td>
<td></td>
</tr>
<tr>
<td><strong>Contacting elements (cable diameter)</strong></td>
<td>5, 6.8 mm</td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td>28 x 45 x 30 mm</td>
<td></td>
</tr>
<tr>
<td><strong>Temperature range</strong></td>
<td>-20...+60°C</td>
<td></td>
</tr>
</tbody>
</table>

**Circuit diagram**

**Contact layout**

---

**Notes**
- Other sections on request.
### VALVE CONNECTORS

**SVS**
- Fieldwirable
- Convenient connection, screw terminals

#### Form A (18 mm)

<table>
<thead>
<tr>
<th>1 Form</th>
<th>29161</th>
<th>29181</th>
<th>29121</th>
<th>29141</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>230 V AC/DC</td>
<td>230 V AC/DC</td>
<td>120 V AC/DC and 230 V AC/DC</td>
<td>120 V AC/DC and 230 V AC/DC</td>
</tr>
<tr>
<td>LED and t Sri</td>
<td>250 A</td>
<td>250 A</td>
<td>250 A</td>
<td>250 A</td>
</tr>
<tr>
<td>wntermination</td>
<td>NC 5</td>
<td>NC 5</td>
<td>NC 5</td>
<td>NC 5</td>
</tr>
</tbody>
</table>

![Circuit diagram for Form A (18 mm)](image)

### Technical Data

- **Operating voltage**: 230 V AC/DC ±10 %
- **Switching current per contact**: max. 5 A
- **Max. switching power**: max. 150 VA
- **Max. switching voltage**: max. 500 V DC
- **Max. switching frequency**: max. 100 Hz

#### Contact layout

![Contact layout for Form A (18 mm)](image)

**Section**
- Glass insulating and tinned (EN 60873 WR), with glass temperature range: -20...+60°C

### Notes

- Other versions on request.

---

### VALVE CONNECTORS

**SVS**
- Fieldwirable
- Convenient connection, screw terminals

#### Form A (18 mm)

<table>
<thead>
<tr>
<th>1 Form</th>
<th>29481</th>
<th>29501</th>
<th>29521</th>
<th>29541</th>
</tr>
</thead>
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<tr>
<td>Type</td>
<td>24 V DC</td>
<td>24 V DC</td>
<td>24 V DC</td>
<td>24 V DC</td>
</tr>
<tr>
<td>LED and switching amplification</td>
<td>120 V AC/DC and 230 V AC/DC</td>
<td>120 V AC/DC and 230 V AC/DC</td>
<td>120 V AC/DC and 230 V AC/DC</td>
<td>120 V AC/DC and 230 V AC/DC</td>
</tr>
<tr>
<td>wntermination</td>
<td>NC 5</td>
<td>NC 5</td>
<td>NC 5</td>
<td>NC 5</td>
</tr>
</tbody>
</table>

![Circuit diagram for Form A (18 mm)](image)

### Technical Data

- **Operating voltage**: 24 V DC ±10 %
- **Switching current per contact**: max. 2 A
- **Max. switching power**: max. 5 W
- **Max. switching frequency**: max. 100 Hz

#### Contact layout

![Contact layout for Form A (18 mm)](image)

**Section**
- Glass insulating and tinned (EN 60873 WR), with glass temperature range: -20...+60°C

### Notes

- Other versions on request.
### VALVE CONNECTORS

**Form B (10 mm)**
- Fieldwirable
- Convenient connection screw terminals

**Form B1 (11 mm)**
- Industrial standard

#### Technical Data

<table>
<thead>
<tr>
<th>Value Connector</th>
<th>Type</th>
<th>Operating voltage</th>
<th>Operating current per contact</th>
<th>Switch off part</th>
<th>Max. power</th>
<th>Connection cross section</th>
<th>Sealing cap (cable diameter)</th>
<th>Number of pins</th>
<th>Connection plate</th>
<th>Temperature range</th>
<th>Article No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVS</td>
<td>29561</td>
<td>24 V AC/DC</td>
<td>max. 4 A</td>
<td>max. 2.5 A</td>
<td>50 W</td>
<td>6 mm</td>
<td>4.5 mm</td>
<td>5</td>
<td>AWG 16/15</td>
<td>20...-60°C</td>
<td>7000 - 000 0000</td>
</tr>
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</table>

#### Notes
- Other options on request.
VALVE CONNECTORS

MOSA
- Fieldwireable
- DC terminals

<table>
<thead>
<tr>
<th>Approvals</th>
<th>Form C (8 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>80081</td>
</tr>
</tbody>
</table>

Form C (9.4 mm)

Industrial handlern

<table>
<thead>
<tr>
<th>Approved</th>
<th>Form A (18 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>94081</td>
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</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>24 V AC/DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuit diagram</td>
<td>LED and suppression</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>24 V AC/DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuit diagram</td>
<td>LED and suppression</td>
</tr>
</tbody>
</table>

Technical Data
Operating voltage: 24 V AC/DC ±10 %
Rated current: 3 A
Rated voltage: max. 5 A
Connection bus section: 0.5 mm² connection cable (max. 0.5 mm²)
Outer wire diameter: 1.3 + 0.4 mm
Contact figure: Cable outlet can be turned in 90° steps
Protection: IP65 and IN67 when plugged and screwed down (EN 60529)
Temperature range: -25...+65°C

Contact figures: Cable outlet can be turned in 90° steps

Valve Connectors

SVS Eco
- Fieldwireable
- Screw terminals
- without components

<table>
<thead>
<tr>
<th>Form A (18 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>29245</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>0...230 V AC/DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuit diagram</td>
<td>without components</td>
</tr>
</tbody>
</table>

Technical Data
Operating voltage: 0...230 V AC/DC
Rated current: max. 10 A
Connection bus section: 0.1...1.5 mm²
Screwing torque (cable diameter): 4...8 Nm
Contact figure: Cable outlet can be turned in 90° steps
Compression plain: 6 x 0.5 mm²
Protection: IP65 and IN67 when plugged and screwed down (EN 60529)
Temperature range: -40...+80°C

Contact figures: Cable outlet can be turned in 90° steps

Valve Connectors

Form A (18 mm)

<table>
<thead>
<tr>
<th>Form A (18 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>29405</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>0...230 V AC/DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circuit diagram</td>
<td>without components</td>
</tr>
</tbody>
</table>

Technical Data
Operating voltage: 0...230 V AC/DC
Rated current: max. 10 A
Connection bus section: 0.1...1.5 mm²
Screwing torque (cable diameter): 4...8 Nm
Contact figure: Cable outlet can be turned in 90° steps
Compression plain: 6 x 0.5 mm²
Protection: IP65 and IN67 when plugged and screwed down (EN 60529)
Temperature range: -40...+80°C

Contact figures: Cable outlet can be turned in 90° steps

Notes: Other versions on request.
### Valve Connectors

#### SVS ECO
- Fieldwirable
- Screw terminals
- Without components

#### Form B (10 mm)
- **Type**: 29765
- Voltage: 0.230 V AC/DC
  - without components

#### Form D (11 mm)
- **Type**: 30005
- Voltage: 0.230 V AC/DC
  - without components

### Technical Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>29765</th>
<th>30005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage</td>
<td>0.230 V AC/DC</td>
<td>0.230 V AC/DC</td>
</tr>
<tr>
<td>Operating current per contact</td>
<td>max. 1 A</td>
<td>max. 1 A</td>
</tr>
<tr>
<td>Connection box socket</td>
<td>10.5 - 11 mm</td>
<td>10.5 - 11 mm</td>
</tr>
<tr>
<td>Sealing range (cable diameter)</td>
<td>6 - 8 mm</td>
<td>6 - 8 mm</td>
</tr>
<tr>
<td>Packing of parts</td>
<td>M3 (recommended torque: 0.4 Nm)</td>
<td>M3 (recommended torque: 0.4 Nm)</td>
</tr>
<tr>
<td>Contact figure</td>
<td>Cable outlet can be turned in 90° steps</td>
<td>Cable outlet can be turned in 90° steps</td>
</tr>
<tr>
<td>Connection plate</td>
<td>M4 x 1.5 mm</td>
<td>M3 x 1.5 mm</td>
</tr>
<tr>
<td>Protection</td>
<td>IP65, dustproof and lighttight</td>
<td>IP65, dustproof and lighttight</td>
</tr>
<tr>
<td>Temperature range</td>
<td>-40...60°C</td>
<td>-40...60°C</td>
</tr>
</tbody>
</table>

### Article No.

- **Article No.**: 7000 0000 0000 0000

### Notes

- Other versions on request.
### VALVE CONNECTORS

**Form A (28 mm)**

**Specifications**
- SVS Eco, LED
- Fieldwirable
- Screw terminals

<table>
<thead>
<tr>
<th>Form</th>
<th>29005</th>
<th>29085</th>
<th>29165</th>
</tr>
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<tbody>
<tr>
<td>Type</td>
<td>24 V AC/DC</td>
<td>110 V AC/DC</td>
<td>230 V AC/DC</td>
</tr>
<tr>
<td>Circuit diagram</td>
<td>[Diagram]</td>
<td>[Diagram]</td>
<td>[Diagram]</td>
</tr>
<tr>
<td>Contact figure</td>
<td>[Diagram]</td>
<td>[Diagram]</td>
<td>[Diagram]</td>
</tr>
<tr>
<td>Contact layout</td>
<td>[Diagram]</td>
<td>[Diagram]</td>
<td>[Diagram]</td>
</tr>
</tbody>
</table>

**Technical Data**
- Operating voltage: 24 V AC/DC ±10 %
- Operating current per contact: max. 1.5 A
- Operating current per contact: max. 3.5 A
- Contacting distance: 1.5...2.5 mm
- Contacting distance: 5...6 mm
- Contacting distance: 10...13 mm
- Contacting distance: 4...8 mm
- Contacting distance: 10...13 mm
- Contacting distance: 4...8 mm
- Compression: M5 x 15 mm
- Compression: M5 x 15 mm
- Compression: M5 x 15 mm
- Compression: M5 x 15 mm
- Compression: M5 x 15 mm
- Temperature range: -40...+60°C
- Temperature range: -40...+60°C

**Article No.**
- 7000 - 0000 0000

**Notes**
- Other versions on request.

---

**Form B (30 mm)**

<table>
<thead>
<tr>
<th>Form</th>
<th>29565</th>
<th>29645</th>
<th>29685</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>24 V AC/DC</td>
<td>110 V AC/DC</td>
<td>230 V AC/DC</td>
</tr>
<tr>
<td>Circuit diagram</td>
<td>[Diagram]</td>
<td>[Diagram]</td>
<td>[Diagram]</td>
</tr>
<tr>
<td>Contact figure</td>
<td>[Diagram]</td>
<td>[Diagram]</td>
<td>[Diagram]</td>
</tr>
<tr>
<td>Contact layout</td>
<td>[Diagram]</td>
<td>[Diagram]</td>
<td>[Diagram]</td>
</tr>
</tbody>
</table>

**Technical Data**
- Operating voltage: 24 V AC/DC ±10 %
- Operating current per contact: max. 3.5 A
- Operating current per contact: max. 3.5 A
- Contacting distance: 10...13 mm
- Contacting distance: 10...13 mm
- Contacting distance: 4...8 mm
- Contacting distance: 4...8 mm
- Compression: M5 x 15 mm
- Compression: M5 x 15 mm
- Compression: M5 x 15 mm
- Compression: M5 x 15 mm
- Temperature range: -40...+60°C
- Temperature range: -40...+60°C

**Article No.**
- 7000 - 0000 0000

**Notes**
- Other versions on request.
## VALVE CONNECTORS

**SVS Eco, LED**
- Fieldwirable
- Screw terminals

### Form B (11 mm)

**Approvals**

<table>
<thead>
<tr>
<th>Form</th>
<th>29805</th>
<th>29885</th>
<th>29925</th>
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<tbody>
<tr>
<td>Type</td>
<td>24 V AC/DC</td>
<td>110 V AC/DC</td>
<td>240 V AC/DC</td>
</tr>
<tr>
<td></td>
<td>LED and VOH</td>
<td>LED and VOH</td>
<td>LED and VOH</td>
</tr>
</tbody>
</table>

**Circuit diagram**

- Contact figure: Cable outlet can be turned in 90° steps
- Contact layout

### Technical Data

- Operating voltage: 24 V AC/DC ±10%
- Operating current per contact: max. 1.5 A
- Connection screw size: 4.5 mm
- Screw size: M3 x 4.5 mm
- Package: 30 mm x 30 mm
- Protection: IP67 (enipped and tigtewed)
- Temperature range: -40...+70°C

### Article No.
The composition of your article number is explained on page 3.3:

| Form | 7000 | 0000 | 0000 |

### Notes
- Other versions on request

---

## VALVE CONNECTORS

**SVS Eco, LED**
- Fieldwirable
- Screw terminals

### Form C (8 mm)

**Approvals**

<table>
<thead>
<tr>
<th>Form</th>
<th>30105</th>
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<th>30125</th>
</tr>
</thead>
<tbody>
<tr>
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<td>110 V AC/DC</td>
<td>240 V AC/DC</td>
</tr>
<tr>
<td></td>
<td>LED and VOH</td>
<td>LED and VOH</td>
<td>LED and VOH</td>
</tr>
</tbody>
</table>

**Circuit diagram**

- Contact figure: Cable outlet can be turned in 90° steps
- Contact layout

### Technical Data

- Operating voltage: 24 V AC/DC ±10%
- Operating current per contact: max. 1.5 A
- Connection screw size: 4.5 mm
- Screw size: M3 x 4.5 mm
- Package: 30 mm x 30 mm
- Protection: IP67 (enipped and tigtewed)
- Temperature range: -40...+70°C

### Article No.
The composition of your article number is explained on page 3.3:

| Form | 7000 | 0000 | 0000 |

### Notes
- Other versions on request
**VALVE CONNECTORS**

**Form C (9.4 mm)**

### Specifications
- **Form**: 30205, 30215
- **Temperature range**: -40°C to 60°C
- **Contacts per contact**: 5 to 10

### Technical Data
- **Supply voltage**: 24V AC/DC ±10%
- **Contacts per contact**: 5 to 10
- **Contact area (cable diameter)**: 4.4 to 6.4 mm
- **Contact material**: Cu/Br (recommended for use with 0.4 mm cables)
- **Contact surface**: 0.5 m²
- **Space for cables**: 33.3 x 17.5 mm
- **Cable outlet**: Can be turned in 90° steps
- **Protection**: IP67

### Article No.
- Article number: 7000
- Other sections: as request