

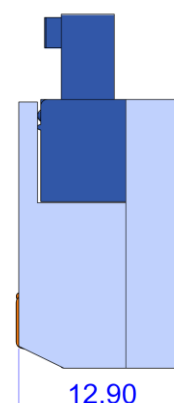
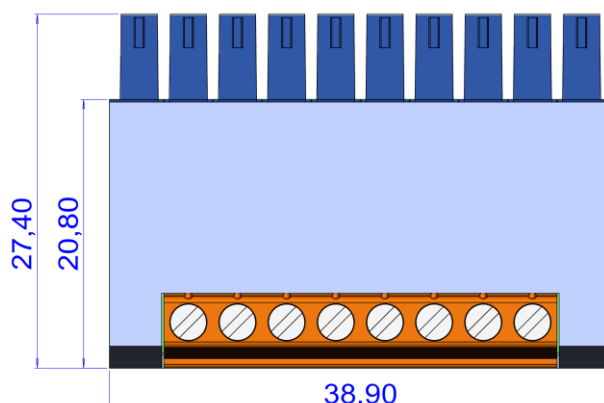
# Q.bloxx Terminal Overview

## Connection terminals for measurements modules

The connection terminals are suitable for supplementing and expanding certain functions of the measuring modules. The active and passive components are built into a robust and thermally highly conductive aluminum housing. On the module side (terminal output), the terminals always have a 10-pin connector. The input side depending on the terminal has either an 8-pin screw terminal or a 10-pin screw terminal.

### Different types of terminals:

- **Cold junction compensation terminal:**  
For measurements with thermocouples, it is necessary to compensate the temperature at the terminal points.
- **Strain gage Wheatstone bridges comp. terminals**  
If a module is suitable for measuring full and / or half bridges a supplement with precision resistor is required when measuring with single strain gages (quarter bridge).
- **Shunt resistor terminal for measuring current**  
A shunt resistor is required for current measurement with a module with a voltage input. A precise shunt resistor ensures a voltage drop at the module input.
- **RS-422 / TTL terminal**  
Used in order to be able to measure the RS-422 level at the digital TTL inputs.
- **Push-Pull terminal for stepper motors**  
Motor control left and right rotation and breaking.
- **Pull-Up terminal for PNP inputs**  
Enables the connection of NPN sensors to PNP inputs  
Attention: the inverting character of the typical NPN input is not given here.



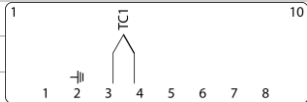
# Q.bloxx Terminal Overview

Connection terminals for measurements modules

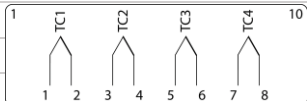
## Specification Terminal Connector

|                          |                                              |
|--------------------------|----------------------------------------------|
| Wire cross-section       | 0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> |
| ... with wire end sleeve | 0.25 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> |
| Tightening torque        | 0.22 Nm ... 0.25 Nm                          |

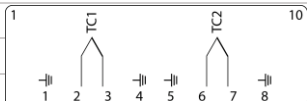
## Q.bloxx Terminal CJC-A101 Cold Junction Terminal for the module [A101](#)

|                         |        |                                                                                     |
|-------------------------|--------|-------------------------------------------------------------------------------------|
| Article number          | 890787 |  |
| Thermal probe           | Pt1000 |                                                                                     |
| Measurement uncertainty | 0.3 °C |                                                                                     |

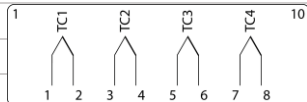
## Q.bloxx Terminal CJC-A104 Cold Junction Terminal for the module [A104](#)

|                         |        |                                                                                     |
|-------------------------|--------|-------------------------------------------------------------------------------------|
| Article number          | 791080 |  |
| Thermal probe           | Pt1000 |                                                                                     |
| Measurement uncertainty | 0.3 °C |                                                                                     |

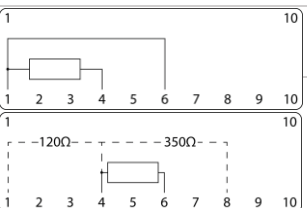
## Q.bloxx Terminal CJC-A107 Cold Junction Terminal for the module [A107](#)

|                         |        |                                                                                       |
|-------------------------|--------|---------------------------------------------------------------------------------------|
| Article number          | 893790 |  |
| Thermal probe           | Pt1000 |                                                                                       |
| Measurement uncertainty | 0.3 °C |                                                                                       |

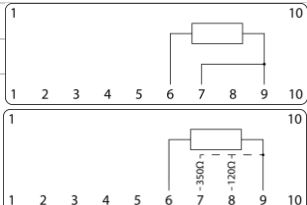
## Q.bloxx Terminal CJC-A192 Cold Junction Terminal for the module [A192](#)

|                         |        |                                                                                       |
|-------------------------|--------|---------------------------------------------------------------------------------------|
| Article number          | 647631 |  |
| Thermal probe           | Pt1000 |                                                                                       |
| Measurement uncertainty | 0.3 °C |                                                                                       |

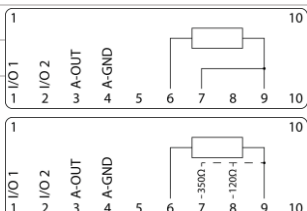
## Q.bloxx Terminal B4/xxx – A101 Comp. terminal for quarter-bridge 120 Ω and/or 350 Ω for the module [A101](#)

|                       |           |        |                 |                                                                                       |
|-----------------------|-----------|--------|-----------------|---------------------------------------------------------------------------------------|
| Article number        | 897895    | 897996 | 846889          |  |
| Thermal probe         | 120 Ω     | 350 Ω  | 120 Ω and 350 Ω |                                                                                       |
| Temperature stability | 0.1 ppm/K |        |                 |                                                                                       |

## Q.bloxx Terminal B4/xxx – A102 Comp. terminal for quarter-bridge 120 Ω and/or 350 Ω for the module [A102](#)

|                       |           |        |                 |                                                                                       |
|-----------------------|-----------|--------|-----------------|---------------------------------------------------------------------------------------|
| Article number        | 894185    | 894286 | 635325          |  |
| Thermal probe         | 120 Ω     | 350 Ω  | 120 Ω and 350 Ω |                                                                                       |
| Temperature stability | 0.1 ppm/K |        |                 |                                                                                       |

## Q.bloxx Terminal B4/xxx – A106 Comp. terminal for quarter-bridge 120 Ω and/or 350 Ω for the module [A106](#)

|                       |           |        |                 |                                                                                       |
|-----------------------|-----------|--------|-----------------|---------------------------------------------------------------------------------------|
| Article number        | 894387    | 894488 | 635426          |  |
| Thermal probe         | 120 Ω     | 350 Ω  | 120 Ω and 350 Ω |                                                                                       |
| Temperature stability | 0.1 ppm/K |        |                 |                                                                                       |

# Q.bloxx Terminal Overview

Connection terminals for measurements modules

## Q.bloxx Terminal B4/xxx – A107 Comp. terminal for quarter-bridge 120 Ω and/or 350 Ω for the module [A107](#)

|                       |           |        |                                                                                     |
|-----------------------|-----------|--------|-------------------------------------------------------------------------------------|
| Article number        | 894589    | 894690 |  |
| Thermal probe         | 120 Ω     | 350 Ω  |                                                                                     |
| Temperature stability | 0.1 ppm/K |        |                                                                                     |

## Q.bloxx Terminal B4/xxx – A156 Comp. terminal for quarter-bridge 120 Ω and 350 Ω for the module [A156](#)

|                       |                 |                                                                                     |
|-----------------------|-----------------|-------------------------------------------------------------------------------------|
| Article number        | 704019          |  |
| Thermal probe         | 120 Ω and 350 Ω |                                                                                     |
| Temperature stability | 0.1 ppm/K       |                                                                                     |

## Q.bloxx Terminal B4/xxx – A192 Comp. terminal for quarter-bridge 120 Ω and 350 Ω for the module [A192](#)

|                       |                 |                                                                                     |
|-----------------------|-----------------|-------------------------------------------------------------------------------------|
| Article number        | 643021          |  |
| Thermal probe         | 120 Ω and 350 Ω |                                                                                     |
| Temperature stability | 0.1 ppm/K       |                                                                                     |

## Q.bloxx Terminal SR Shunt-terminal for measuring current with the module [A103](#) and [A108](#)

|                       |         |        |                                                                                      |
|-----------------------|---------|--------|--------------------------------------------------------------------------------------|
| Article number        | 791989  | 623120 |  |
| Internal resistor     | 100 Ω   | 250 Ω  |                                                                                      |
| Tolerance             | 0.1 %   |        |                                                                                      |
| Temperature stability | 5 ppm/K |        |                                                                                      |

## Q.bloxx Terminal SR-A111 Shunt-terminal for measuring current with the module [A111](#)

|                        |          |                                                                                       |
|------------------------|----------|---------------------------------------------------------------------------------------|
| Article number         | 487936   |  |
| Internal resistor      | 5 Ω      |                                                                                       |
| Max. allowable current | 160 mA   |                                                                                       |
| Tolerance              | 0.1 %    |                                                                                       |
| Temperature stability  | 10 ppm/K |                                                                                       |

## Q.bloxx Terminal RS-422 TTL Level converter for RS-422 signals at the TTL inputs of the modules [A109](#) and [D101](#)

|                       |         |                                                                                       |
|-----------------------|---------|---------------------------------------------------------------------------------------|
| Article number        | 405324  |  |
| Internal resistor     | 100 Ω   |                                                                                       |
| Tolerance             | 0.1 %   |                                                                                       |
| Temperature stability | 5 ppm/K |                                                                                       |

## Q.bloxx Terminal D104 NPN Conversion terminal from PNP to NPN for the module [D104](#)

|                  |                                       |  |                                                                                       |  |  |  |  |  |  |  |  |  |
|------------------|---------------------------------------|--|---------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|
| Article number   | 405324                                |  |  |  |  |  |  |  |  |  |  |  |
| High / Low level | Low → High (2.8 V)                    |  | High → Low (1.7 V)                                                                    |  |  |  |  |  |  |  |  |  |
| Supply Voltage   | Pin 1 Logical High (+5 up tp +30 VDC) |  | Pin 10 Logical Low (0 V)                                                              |  |  |  |  |  |  |  |  |  |
| Attention        | D104 has to be configured to TTL      |  |                                                                                       |  |  |  |  |  |  |  |  |  |

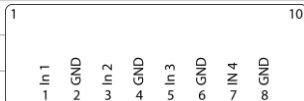
## Q.bloxx Terminal D105 NPN Conversion terminal from PNP to NPN for the module [D105](#)

|                  |                                  |                          |                                                                                       |
|------------------|----------------------------------|--------------------------|---------------------------------------------------------------------------------------|
| Article number   | 448832                           |                          |  |
| High / Low level | Low → High (2.8 V)               | High → Low (1.7 V)       |                                                                                       |
| Supply Voltage   | Pin 1 +24 V                      | Pin 10 Logical Low (0 V) |                                                                                       |
| Attention        | D105 has to be configured to TTL |                          |                                                                                       |

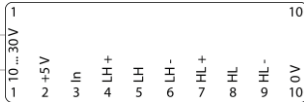
# Q.bloxx Terminal Overview

Connection terminals for measurements modules

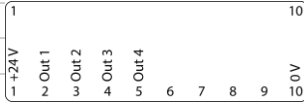
## Q.bloxx Terminal ST 100 mV Schmitt Trigger Terminal with threshold at 100mV for [D101](#)

|                |                                                        |                                                                                     |
|----------------|--------------------------------------------------------|-------------------------------------------------------------------------------------|
| Article number | 931682                                                 |  |
| Attention      | Threshold changes with rising frequency                |                                                                                     |
|                | e.g.: @100 kHz 120mV threshold, @500kHz 1.5V threshold |                                                                                     |

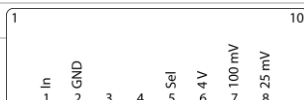
## Q.bloxx Terminal ST Prog Schmitt Trigger Terminal with Variable thresholds for the [D101](#)

|                |                                                         |              |                                                                                     |
|----------------|---------------------------------------------------------|--------------|-------------------------------------------------------------------------------------|
| Article number | 448832                                                  |              |  |
| Supply Voltage | Pin 1 (+10 up to +30 V)                                 | Pin 10 (0 V) |                                                                                     |
| Attention      | D101 has to be configured to TTL                        |              |                                                                                     |
|                | The thresholds can be adjusted using two potentiometers |              |                                                                                     |

## Q.bloxx Terminal PP D105 Connection Terminal for stepper motors to the module [D105](#)

|                         |                 |                                                                                     |
|-------------------------|-----------------|-------------------------------------------------------------------------------------|
| Article number          | 448832          |  |
| Voltage Levels          | 10 up to 30 VDC |                                                                                     |
| Max. continuous current | 1 A             |                                                                                     |
| Max Frequency           | 1 kHz           |                                                                                     |

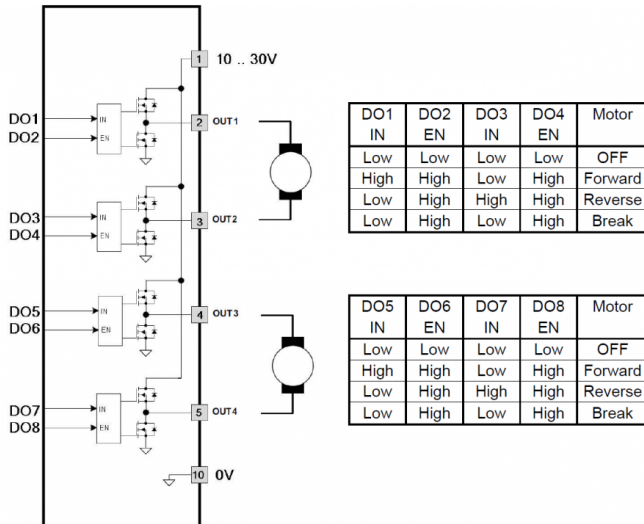
## Q.bloxx Terminal PP D107 Schmitt Trigger Terminal for the module [D107](#)

|                |        |                                                                                      |
|----------------|--------|--------------------------------------------------------------------------------------|
| Article number | 466428 |  |
| Max Frequency  | 35 kHz |                                                                                      |

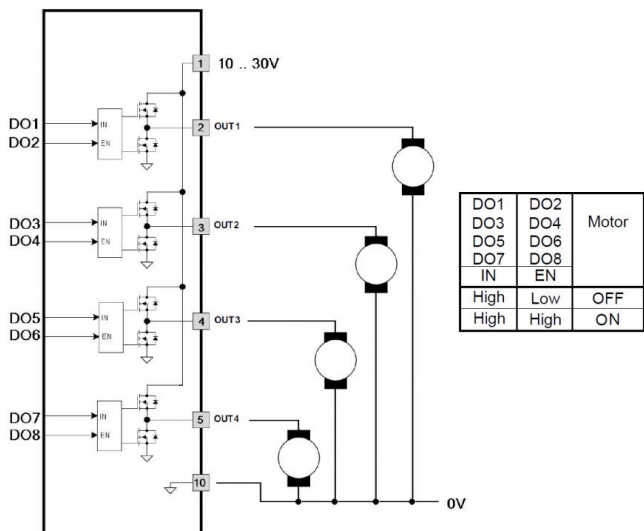
# Q.bloxx Terminal Overview

Connection terminals for measurements modules

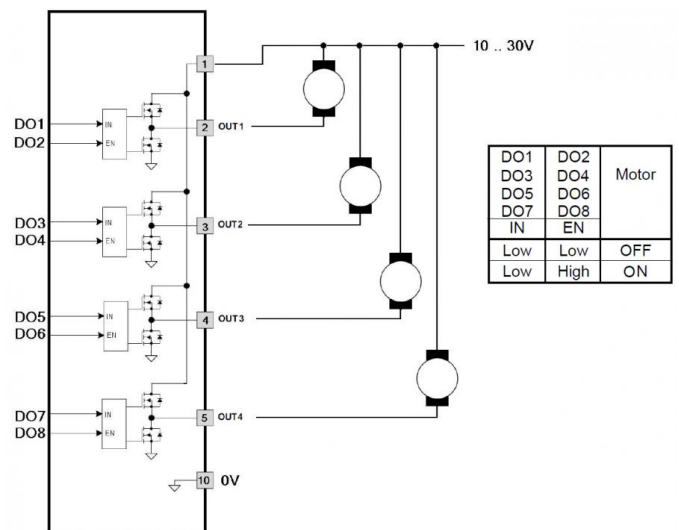
## Additional Information Q.bloxx Terminal PP D105



Motorsteuerung Rechts- Linkslauf und Bremse



Motorsteuerung Ein-Aus mit gemeinsamen Null-Anschluss



Motorsteuerung Ein-Aus mit gemeinsamen 10 bis 30 V Anschluss