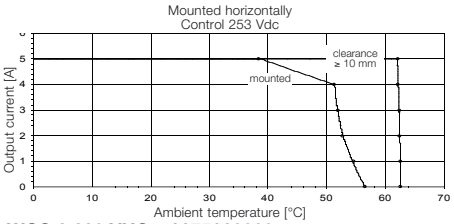
# Opto-coupler in component housing WAVESERIES

## Opto-couplers WAVESERIES

with power output
(short-circuit proof and overload proof)



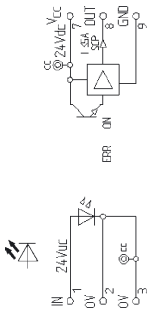

**WOS 2 230 VUC • 8275220000**

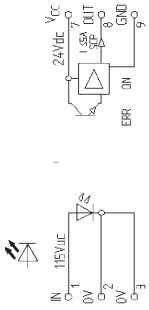
### WOS 2 24 VUC

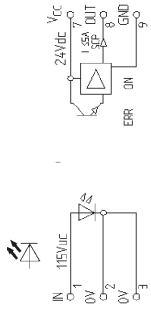
### WOS 2 115 VUC

### WOS 2 230 VUC

**Schematic circuit diagram**




| **Ordering data** | Type | Cat. No. | Type | Cat. No. | Type | Cat. No. |
|---|---|---|---|---|---|---|
| Screw connection | WOS 2 24 Vuc | **8275190000** | WOS 2 115 Vuc | **8296250000** | WOS 2 230 Vuc | **8275220000** |
| Tension clamp connection | WOZ 2 | **8430080000** | WOZ 2 | **8429980000** | WOZ 2 | **8430060000** |
| **Input** | | | | | | |
| Input voltage | 21.6 V...**24 V**...26.4 V | | 115 V, max. 130 Vuc | | 230 V, max. 250 Vuc | |
| Input current | 16.3 mA **ac** at 24 V | | 3.1 mA **ac** at 115 V | | 12.0 mA **ac** at 230 V | |
| | 13.5 mA **dc** at 24 V | | 2.8 mA **dc** at 115 V | | 1.8 mA **dc** at 230 V | |
| Making threshold | ca.16 V | | ca.70 V | | ca.140 V | ca.100 V |
| Breaking threshold | ca.11 V | | ca.55 V | | ca.100 V | ca.120 V |
| Switch-on delay | 8 ms **ac** 7 ms **dc** | | 10 ms **ac** 15 ms **dc** | | 10 ms **ac** 15 ms **dc** | |
| Switch-off delay | 25 ms **ac** 25 ms **dc** | | 30 ms **ac** 30 ms **dc** | | 30 ms **ac** 30 ms **dc** | |
| Status indicator normal operation | LED green in output | | LED green in output | | LED green in output | |
| Status indicator short-circuit, underload, overload | LED red in output*¹⁾ | | LED red in output*¹⁾ | | LED red in output*¹⁾ | |
| Underload | min. 2 mA...max. 1.5 A at Tb 25 °C...150 °C<br>min. 2 mA...max. 1.9 A at Tb -40 °C...25 °C<br>Tb: temperature in module direct at output driver BTS442 | | min. 2 mA...max. 1.5 A at Tb 25 °C...150 °C<br>min. 2 mA...max. 1.9 A at Tb -40 °C...25 °C<br>Tb: temperature in module direct at output driver BTS442 | | min. 2 mA...max. 1.5 A at Tb 25 °C...150 °C<br>min. 2 mA...max. 1.9 A at Tb -40 °C...25 °C<br>Tb: temperature in module direct at output driver BTS442 | |
| **Output** | **short-circuit protection** | | **short-circuit protection** | | **short-circuit protection** | |
| Output current | 5 Adc* | | 5 Adc* | | 5 Adc* | |
| Closed supply-circuit current (output not switched) | approx.15 mA at 28.8 V | | approx.15 mA at 28.8 V | | approx.15 mA at 28.8 V | |
| Voltage supply | 19.2 Vdc...**24 Vdc**...28.8 Vdc | | 19.2 Vdc...**24 Vdc**...28.8 Vdc | | 19.2 Vdc...**24 Vdc**...28.8 Vdc | |
| Residual voltage | max. 400 mV | | max. 400 mV | | max. 400 mV | |
| Protection circuit | Polarity protection, varistor | | Polarity protection, varistor | | Polarity protection, varistor | |
| Short-circuit in output | yes / max. 96 h | | yes / max. 96 h | | yes / max. 96 h | |
| **Temperature** | | | | | | |
| Operating temperature** | -25 °C...+50 °C rowed | | -25 °C...+50 °C rowed | | -25 °C...+50 °C rowed | |
| Storage temperature | -40 °C...+85 °C | | -40 °C...+85 °C | | -40 °C...+85 °C | |
| **Mechanical data** | | | | | | |
| Overall width | 22.5 mm | | 22.5 mm | | 22.5 mm | |
| Housing material | Polyamide PA 66 | | Polyamide PA 66 | | Polyamide PA 66 | |
| Approvals | UL/CSA | | UL/CSA | | UL/CSA | |
| **Reliable separation according to EN 50 178** | | | | | | |
| **Coordination of insulation according to EN 50 178** | | | | | | |
| **Opto-coupler according to VDE 0884** | | | | | | |
| Rated voltage | 300 V | | 300 V | | 300 V | |
| Rated impulse voltage | 4 kV | | 4 kV | | 4 kV | |
| Overvoltage category | III | | III | | III | |
| Pollution severity | 2 | | 2 | | 2 | |
| Clearance/creepage path | ≥ 5.5 mm | | ≥ 5.5 mm | | ≥ 5.5 mm | |
| Accessories, dimensions and connection data see | Page 298 + 308 | | Page 298 + 308 | | Page 298 + 308 | |

* at ambient temperature 20 °C/horizontal installation

*¹⁾ **LED red**:
hard short-circuit,
LED permanently lit.
The output is switched off and does **not** reset itself. To reset, the output or input must be temporarily disconnected from the supply voltage or input signal.
**Overload:** LED cycles,
Rate: approx. 2 sec. on, approx. 30 sec. off.
Module resets itself after the overload is removed.
**Underload:** LED permanently lit.
When an underload recognised, both LEDs are lit.
The output is switched through