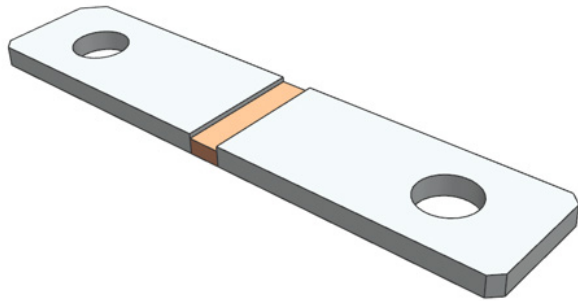


# Wieland-Shunt

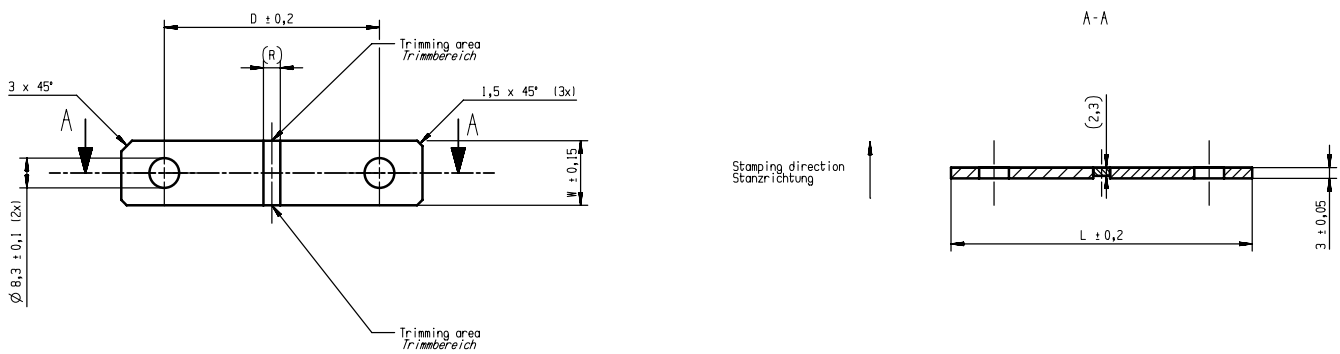
W6918 | W8518 | W8420



## Features

- E-Beam welded shunt
- Material combination Wieland-K14 and Wieland-FX7
- Nickel-Tinned contact material
- Up to 36 W permanent power
- AEC-Q200 and RoHS compliant
- Customized shunts and further dimensions available on request

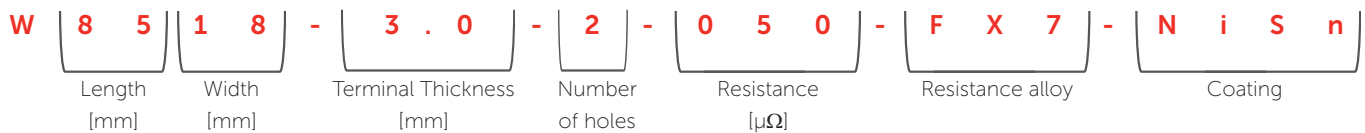
## Dimensions [mm]



## Available Sizes

| Part No. | L-Length | W-Width | D-Distance between holes | R-Resistance material width |
|----------|----------|---------|--------------------------|-----------------------------|
| W6918    | 69       | 18      | 52                       | 4.7 mm for 50 $\mu\Omega$   |
| W8518    | 85       | 18      | 60                       | 9.4 mm for 100 $\mu\Omega$  |
| W8420    | 84       | 20      | 60                       |                             |

## Request and Ordering Code



Example: Wieland-Shunt 85 x 18 x 3 mm with 2 holes, resistance 50  $\mu\Omega$ , resistance alloy Wieland-FX7, Nickel-Tin coated terminals

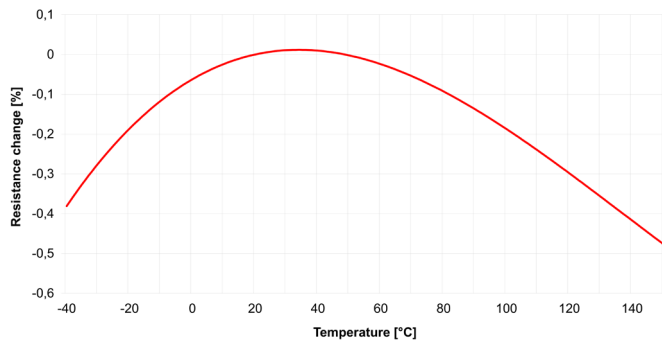
# Wieland-Shunt

W6918 | W8518 | W8420

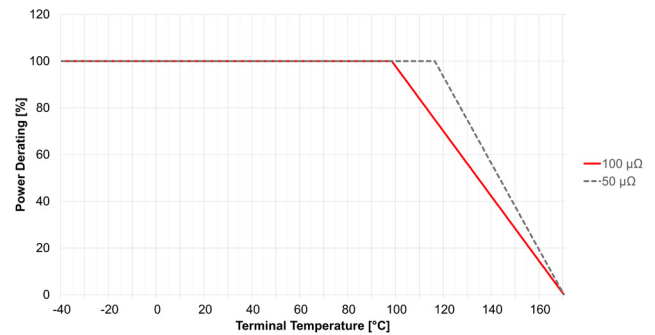
## Electrical Characteristics

|   |   |
|---|---|
| Nominal resistance [ $\mu\Omega$ ]            | 50, 100   |
| Resistance tolerance [%]                      | $\pm 5$   |
| Power rating [W]                              | 36  |
| Operating temperature range [°C]              | -40 to +170                                     |
| TCR of resistance material (20–60 °C) [ppm/K] | < 50  |
| Thermal EMF [ $\mu\text{V/K}$ ]               | < 0.8   |
| Internal heat resistance [K/W]                | 1.5 (50 $\mu\Omega$ )<br>2.0 (100 $\mu\Omega$ ) |

## TCR Curve of Wieland-FX7



## Power Derating Curve



## Environmental Characteristics

| Test                         | Test Conditions                                     | Limits        |
|------------------------------|---|---------------|
| Thermal shock                | -55 to +150 °C / 1000 cycles                        | $\pm 0.5$ %   |
| Resistance to soldering heat | +260 °C / 10 sec.                                   | $\pm 0.25$ %  |
| High temperature exposure    | +170 °C / 2000 h                                    | $\pm 1.0$ %   |
| Low temperature storage      | -65 °C / 24 h                                       | $\pm 0.25$ %  |
| Biased humidity test         | +85 °C, 85 % RH, 10 % bias, 1000 h                  | $\pm 0.25$ %  |
| Moisture resistance          | 10 days with cold shock, no load                    | $\pm 0.25$ %  |
| Mechanical shock             | 100 g, 6 milliseconds, 5 pulses                     | $\pm 0.25$ %  |
| Vibration                    | 10-2000 Hz in 1 minute, 3 directions, 12 h          | $\pm 0.25$ %  |
| Solderability                | J-STD-002   | 95 % coverage |
| Short time overload          | 5 times rated power for 5 sec.                      | $\pm 0.25$ %  |
| Operational life simulated   | +125 °C / 1000 h (1.5 h „on“, 0.5 h „off“), Cond. D | $\pm 1.0$ %   |

## Packaging Information

- Tray pack (48 shunts per tray)
- Sample quantities available on request

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