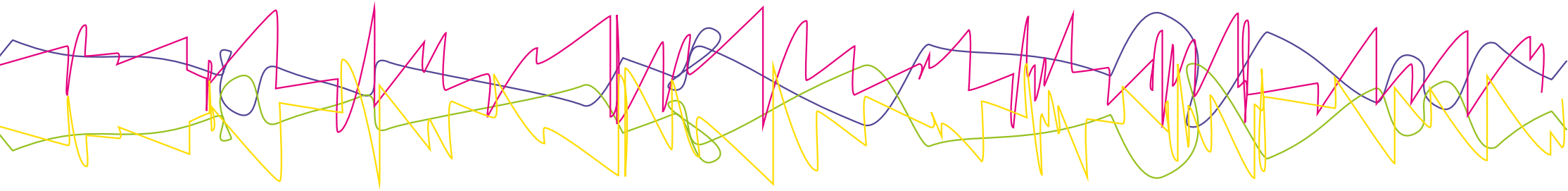


# Specification of the Precision Burden Amplifier

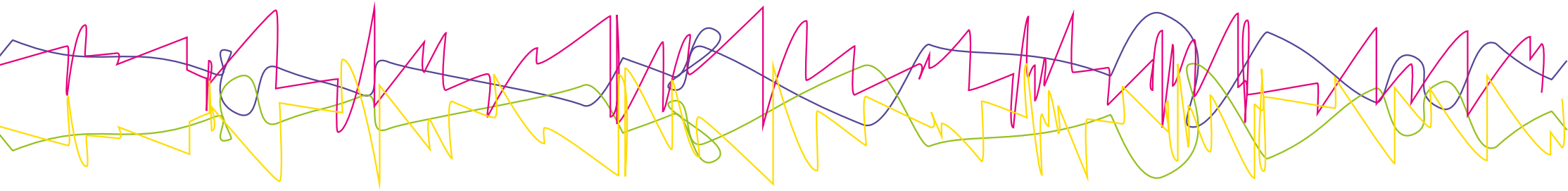
Accuracy makes the difference



Version	RA100	RA200	RA500	RA1000
Rated current ( $I_{PN}$ )	100 mA	200 mA	500 mA	1000 mA
Overload (continuous)	125 mA	250 mA	625 mA	660 mA (or 1000mA 30s each 5 min.)
Overload short time (0.1s)	500 mA	1000 mA	3000 mA	3000 mA
Rated output voltage (at $I_{PN}$ )	10 V	10 V	10 V	10 V
Maximum load-current	5 mA	5 mA	5 mA	5 mA
Slew rate (10-90 %)	> 1.5 V/ $\mu$ s	> 1.5 V/ $\mu$ s	> 1.5 V/ $\mu$ s	> 1.5 V/ $\mu$ s
Bandwidth, small signal (5 %)	DC...250 kHz	DC...250 kHz	DC...250 kHz	DC...250 kHz
Noise BW (0-10 kHz) <sup>1)</sup>	< 8 ppm <sub>p-p</sub>	< 5 ppm <sub>p-p</sub>	< 3 ppm <sub>p-p</sub>	< 2 ppm <sub>p-p</sub>
<sup>1)</sup> Additional noise generated by the voltage output				
Supply voltage	$\pm 14$ V ... $\pm 15.5$ V	$\pm 14$ V ... $\pm 15.5$ V	$\pm 14$ V ... $\pm 15.5$ V	$\pm 14$ V ... $\pm 15.5$ V
<b>Offset errors</b>				
initial (23 °C $\pm$ 1 K) Adjustable to zero	< 10 ppm	< 10 ppm	< 10 ppm	< 10 ppm
drift (TC)	< 3 ppm/K	< 3 ppm/K	< 3 ppm/K	< 3 ppm/K
vs. time	< 3 ppm/month	< 3 ppm/month	< 3 ppm/month	< 3 ppm/month
vs. supply voltage	< 20 ppm/V	< 10 ppm/V	< 4 ppm/V	< 2 ppm/V
<b>Ratio error</b>				
initial (23 °C $\pm$ 1 K) Adjustable to zero	< 50 ppm	< 50 ppm	< 50 ppm	< 50 ppm
drift (TC)	< 5 ppm/K	< 5 ppm/K	< 5 ppm/K	< 5 ppm/K
vs. time	< 5 ppm/month	< 5 ppm/month	< 5 ppm/month	< 5 ppm/month
Linearity error of actual $V_{out}$	< 15 ppm	< 20 ppm	< 25 ppm	< 30 ppm

# Specification of the Precision Burden Amplifier

Accuracy makes the difference



## Housing

Dimensions (l x w x h) without SUB-D	38 x 35 x 18 mm	38 x 35 x 18 mm	38 x 35 x 18 mm	38 x 35 x 18 mm
Material	Cast resin PU 552 FL	Cast resin PU 552 FL	Cast resin PU 552 FL	Cast resin PU 552 FL
Weight	< 45 gram	< 45 gram	< 45 gram	< 45 gram
Ambient operating temperature	0 ... +55 °C	0 ... +55 °C	0 ... +55 °C	0 ... +55 °C
Relative Humidity (Non condensing)	20 ... 80 %	20 ... 80 %	20 ... 80 %	20 ... 80 %
Ambient storage temperature	-40 ... +75 °C	-40 ... +75 °C	-40 ... +75 °C	-40 ... +75 °C
Relative Humidity (Non condensing)	20 ... 80 %	20 ... 80 %	20 ... 80 %	20 ... 80 %
Pollution degree	2	2	2	2

## Safety

Protection Class	III (IEC 60 950-1, Supplied by external SELV power source)	III (IEC 60 950-1, Supplied by external SELV power source)	III (IEC 60 950-1, Supplied by external SELV power source)	III (IEC 60 950-1, Supplied by external SELV power source)
Protection degree				
Terminals	IP00 (Test finger, EN 60 529)	IP00 (Test finger, EN 60 529)	IP00 (Test finger, EN 60 529)	IP00 (Test finger, EN 60 529)
Housing	IP20 (Test finger, EN 60 529)	IP20 (Test finger, EN 60 529)	IP20 (Test finger, EN 60 529)	IP20 (Test finger, EN 60 529)
Flammability class acc. UL94	V-0	V-0	V-0	V-0
CTI (IEC112 / DIN VDE 0303, TI. 1)	CTI 600-0.1 / CTI 600 M-0.1	CTI 600-0.1 / CTI 600 M-0.1	CTI 600-0.1 / CTI 600 M-0.1	CTI 600-0.1 / CTI 600 M-0.1