

**Electrical data**

 At  $T_A = 25\text{ °C}$ ,  $\pm U_C = \pm 15\text{ V}$ , unless otherwise noted.

 Lines with a \* in the comment column apply over the  $-40 \dots 85\text{ °C}$  ambient temperature range.

Parameter	Symbol	Unit	Min	Typ	Max	Comment
Primary continuous direct current	$I_{PNDC}$	A	-600		600	*
Primary nominal rms current	$I_{PN}$	A			600	*
Primary current, measuring range	$I_{PM}$	A	-849		849	* Peak limit
Measuring resistance over supply voltage range	$R_M$	$\Omega$	0		5	See graph page 4
Secondary current	$I_S$	mA	-566		566	* Peak limit
Secondary nominal rms current	$I_{SN}$	mA			400	*
Conversion ratio	$K_N$			1:1500		*
Resistance of secondary winding	$R_S$	$\Omega$		11		
Overload capability <sup>1)</sup>	$\hat{I}_P$	A	-3000		3000	@ pulse of 100 ms
Supply voltage DC	$U_C$	V	$\pm 14.25$	$\pm 15$	$\pm 15.75$	*
Current consumption	$I_C$	mA		122	128	Add $I_S$ for total current consumption
				131	139	
Output rms noise current 0 ... 10 Hz <sup>2)</sup>	$I_{no}$	ppm			0.05	
Output rms noise current 0 ... 100 Hz <sup>2)</sup>					0.5	
Output rms noise current 0 ... 1 kHz <sup>2)</sup>					1	
Output rms noise current 0 ... 10 kHz <sup>2)</sup>					3	
Output rms noise current 0 ... 50 kHz <sup>2)</sup>					6	
Re-injected rms noise on primary bus bar		$\mu\text{V}$			5	0 ... 50 kHz
Electrical offset current + self magnetization + effect of earth magnetic field <sup>2)</sup>	$I_{OE}$	ppm		$\pm 25$	$\pm 32$	
				$\pm 28$	$\pm 36$	
Offset stability <sup>2)</sup>		ppm/month			1	
Linearity error <sup>2)</sup>	$\epsilon_L$	ppm		$\pm 3$	$\pm 7$	@ $\pm I_{PNDC}$ range
				$\pm 4$	$\pm 8$	
Step response time to 90 % of $I_{PNDC}$	$t_r$	$\mu\text{s}$			1	$di/dt$ of 100 A/ $\mu\text{s}$
$di/dt$ accurately followed	$di/dt$	A/ $\mu\text{s}$		100		
Frequency bandwidth ( $\pm 1\text{ dB}$ )	$BW$	kHz		200		Small-signal bandwidth, 0.5 % of $I_{PNDC}$
Frequency bandwidth ( $\pm 3\text{ dB}$ )	$BW$	kHz		300		Small-signal bandwidth, 0.5 % of $I_{PNDC}$

**Notes:** <sup>1)</sup> Single pulse only, not AC. The transducer may require a few seconds to return to normal operation when autoreset system is running

<sup>2)</sup> All ppm figures refer to full-scale which corresponds to a secondary nominal rms current ( $I_{SN}$ ) of 400 mA.

### Overload protection - Electrical specification - Status

The overload occurs when the primary current  $I_p$  exceeds a trip level such that the fluxgate detector becomes completely saturated and, consequently, the transducer will switch from normal operation to overload mode.

This trip level is guaranteed to be greater than 110 % of  $I_{PM}$  and its actual value depends on operating conditions such as temperature and measuring resistance.

When this happens, the transducer will automatically begin to sweep in order to lock on the primary current again and the measuring can resume when the primary current returns in the measuring range between  $-I_{PM}$  and  $+I_{PM}$ .

In overload mode, the secondary current  $I_s$  generated is a low frequency signal between  $-0.566$  A and  $0.566$  A.

The overload conditions will be:

- The potential-free contact (normal operation status) between pin 3 and 8 (of the D-sub connector) switches off, this contact becomes open.
- The green LED indicator (normal operation status) turns off.

Max voltage pin 3 and pin 8, off-State	100 V
Max current pin 3 and pin 8, on-State	1000 mA
On-State resistance pin 3 and pin 8:	30 mΩ (max)

### Maximum measuring resistor versus primary current and temperature

