

DS 200

A contact free flux gate based current measurement sensor – 200A_{rms}

DS 200 is member of the small housing sensor family. The family includes 200A and 600A versions.

- 200A rms - 300A peak
- Turns ratio 1:500
- Aperture size is 27.6mm
- Operating temperature from -40 to +85 deg celcius
- Available with LEMO, BNC and DSUB output connection

The sensor is a flux gate based sensor and does have an intrinsic measurement error of less than 0.5 ppm of full scale and is build in a ruggedized aluminum housing for optimal shielding against external noise and optimal cooling.



Parameter	Unit	Min	Typ	Max	Comment
Primary current, rms	A			200	
Primary current peak	A			300	
Load resistance	Ω	0		3	Used on the secondary side
Power supply	V	±14.25		±15,75	
Overall accuracy at Nominal current	%		0,01		Primary current DC Temperature -40 to 85 deg celcius
Gain error	%				
- DC to 5kHz				0,01	
- 5kHz to 100kHz				0,5	
- 100kHz to 1MHz				20	
Induced into primary	uVrms	0		5	DC-100kHz
Offset	ppm	0		20	Referred to secondary current
Linearity	ppm			1	
Output noise (DC-10kHz)	ppm			10	

Absolute maximum ratings

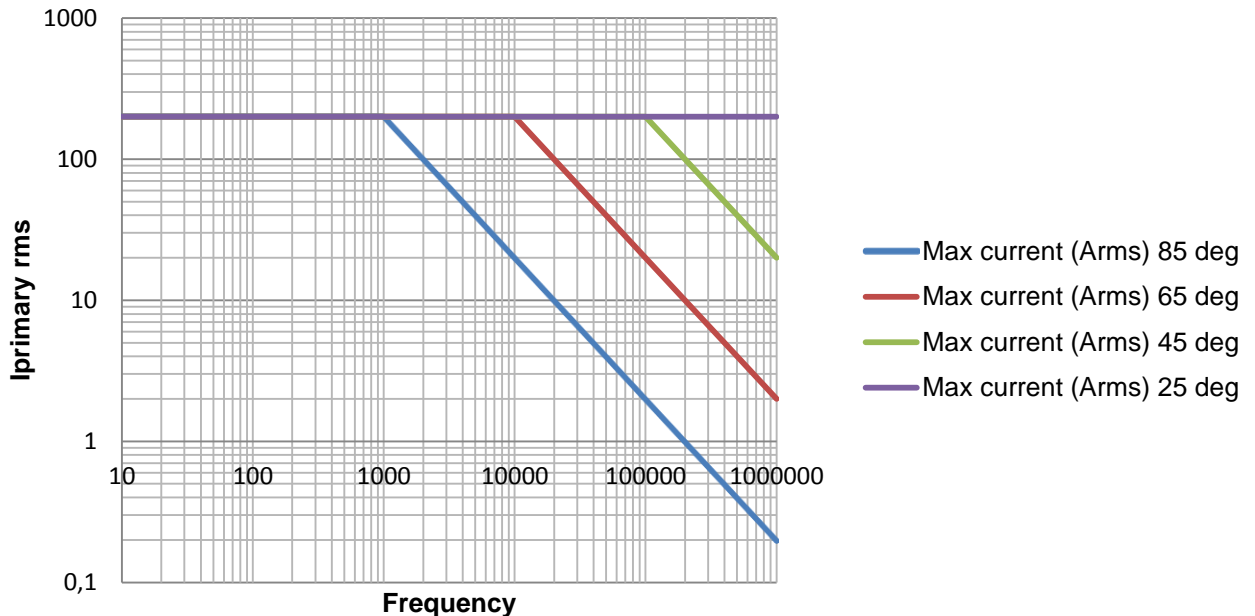
Parameter	Unit	Min	Typ	Max	Comment
Primary	kA			1,5	* Maximum 100ms
Power supply	V			±16,5	
Current in calibration winding	mA			100mA	

Environment and mechanical characteristics

Parameter	Unit	Min	Typ	Max	Comment
Ambient operating temperature	°C	-40		85	
Storage temperature	°C	-40		85	
Mass	Kg		0,6		
Standards		EN 61326 EMC EN 61010 Safety			

Temperature derating with $I_{primary,rms}$, ambient temperature and frequency

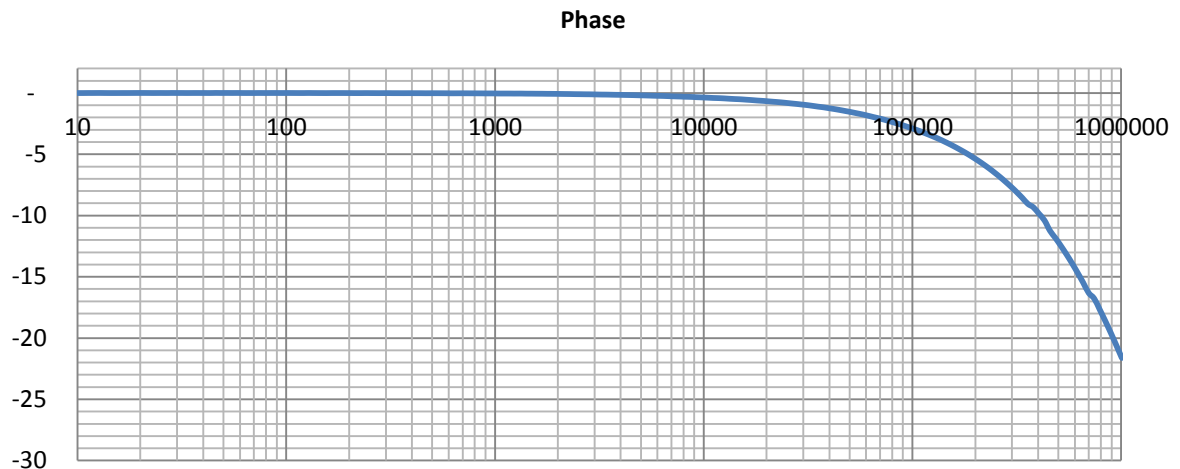
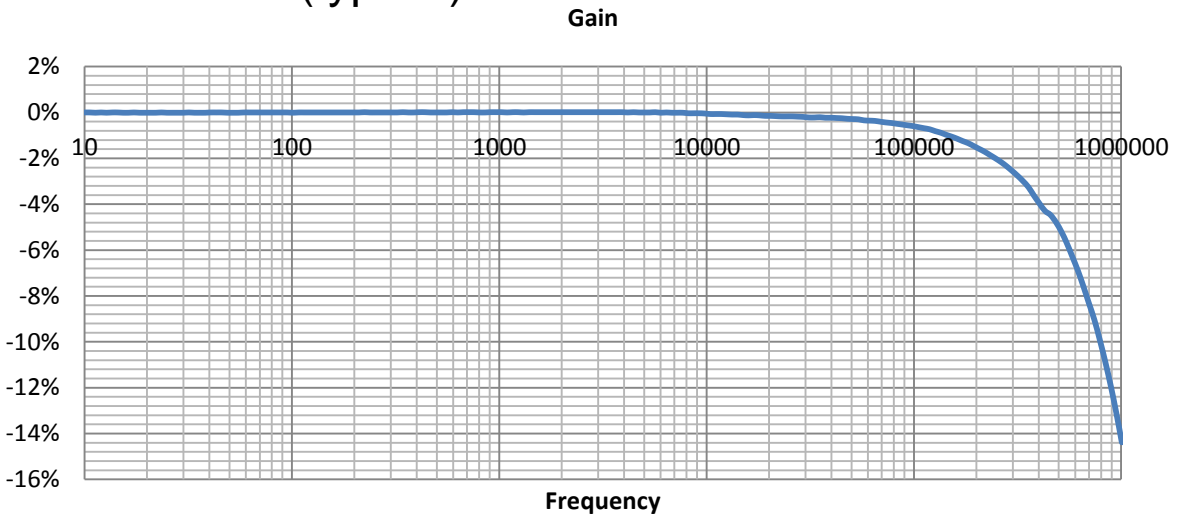
Temperature derating of sensor



Accuracy data

Parameter	Unit	Min	Typ	Max	Comment
Gain error - DC to 5kHz - 5kHz to 100kHz - 100kHz to 1MHz	%			0,01 0,5 20	
Phase error - DC to 5kHz - 5kHz to 100kHz - 100kHz to 1MHz	Degree			0,2 4 30	

Gain / Phase (typical)



Isolation characteristics

Parameter	Unit	Min
Rated isolation voltage rms, reinforced isolation IEC 61010-1 standard and with following conditions - Overvoltage category II - Pollution degree 2	V	500
Rms voltage for AC isolation test, 50/60 Hz, 1 min - Between primary and (secondary and shield) - Between secondary and shield	kV	3,6 0,2
Impulse withstand voltage	kV	9
Creepage distance	mm	10
Comparative Tracking Index	CTI	600

Options and ordering information

Product Description	Part Name
DS 200 with current output in 4-pin LEMO connector	DS0200ILSA
DS 200 with voltage output in BNC connector	DS0200UBSA
DS 200 with calibration winding and current output in 4-pin LEMO	DS0200CLSA
DS 200 with current output in 9-pin DSUB	DS0200IDSA

Part Name

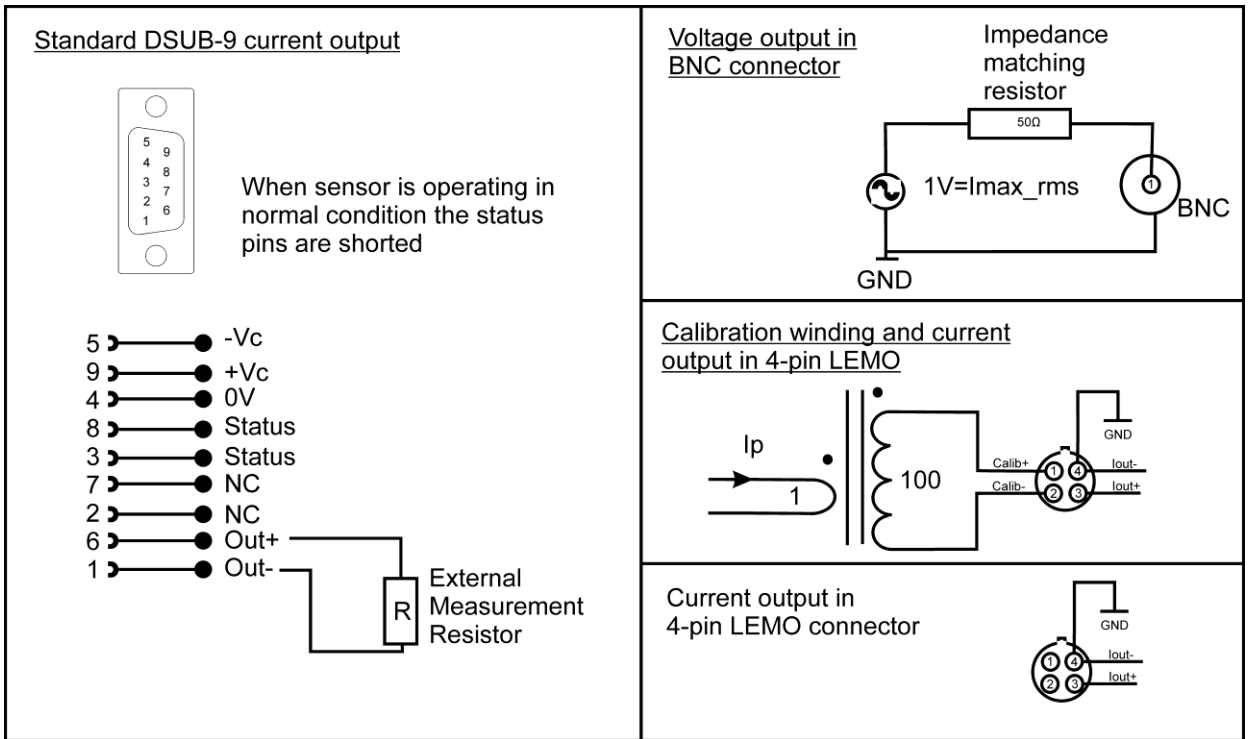
DS XXXX Y Z SA



L = LEMO type
B = BNC
D = 9 pin DSUB

I = current
U = Voltage
C = Calibration & current

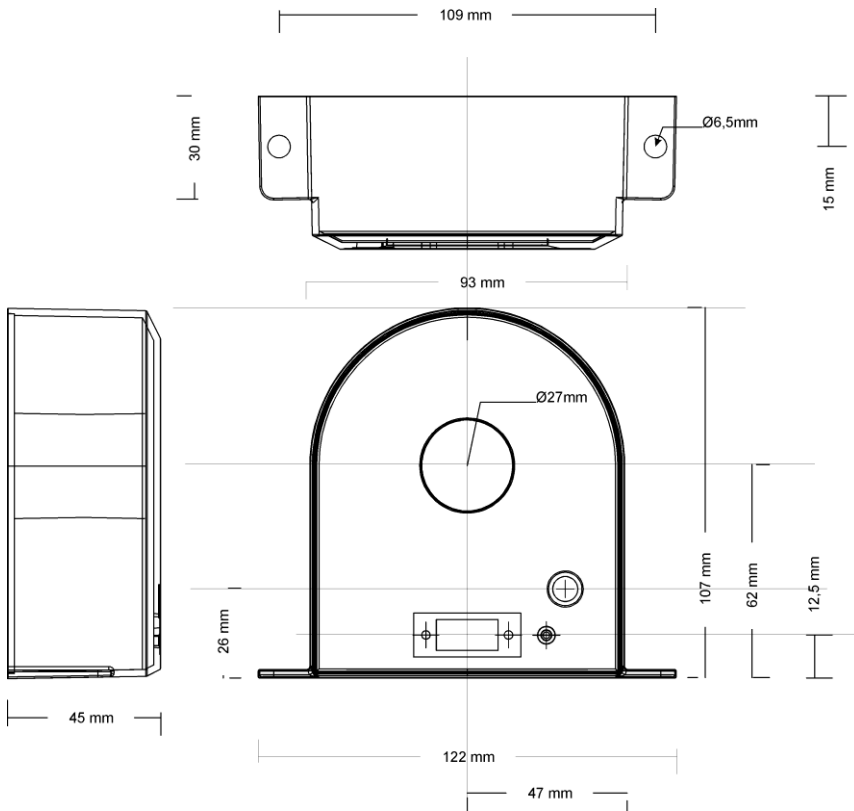
Connection diagram



Package content

- Sensor specific test report with CE certificate of conformance
 - Offset error
 - Gain / Phase analysis 1Hz-1MHz
 - Noise DC-100kHz
- Sensor

Mechanical dimensions



Mounting bushings on the back

