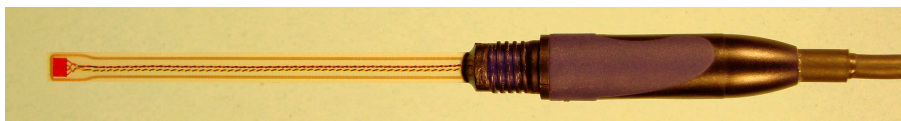


AS-active-probes

- Calibrated probes for nT-, μ T-, mT- and T- range
- High precision
- Analog output: DC – 35 kHz (depending on probe type)
- operation as autonomous transducer
- thin and flexible probes
- factory calibration certificate
- Made in Germany



AS-NTP transverse probe



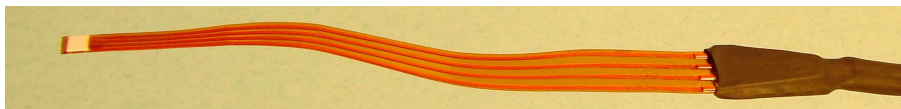
AS-NTM and AS-LTM brass transverse probe for heavy duty



AS-NAP, AS-LAP and AS-HAP axial probe



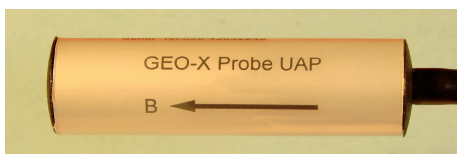
AS-NTP-Hot transverse probe



AS-NTP-Flex transverse probe



AS-NCu-Wire and AS-LCu-Wire transverse probe



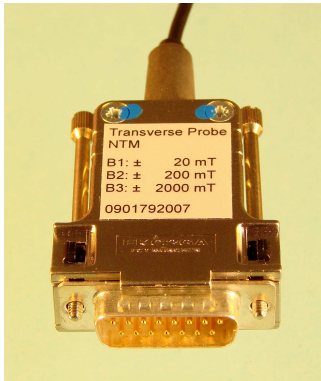
AS-UAP GEO-X probe



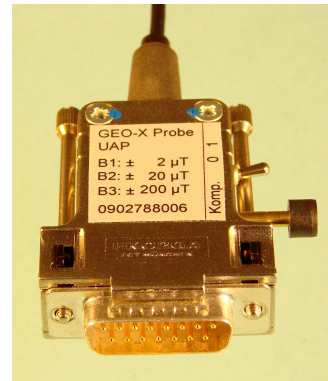
AS-UAP Lot probe

The AS-active-probes are active measuring-probes for measuring magnetic flux density. They have an active electronic to output the calibrated flux density value. These probes are premium transducers for measuring steady and alternating fields.

The probes can be used with the Teslometer FM 205 and FM 302 or as autonomous transducers in data acquisition systems.



probe plug normal



probe plug UAP
± 70 µT compensation
can be additionally activated

General technical data:

Power	± 3 V through Teslometer FM 205 and FM 302 or + 6 V through PLC	
Plug	15 pole Sub D	
Cable length	1.5 m	AS-HAP 2.9 m
Temperature coefficient	max.	0.05 %/K, typ. 0.03 %/K (DC) at 25 °C
	AS-HAP:	0.10 %/K, typ. 0.05 %/K (DC) at 25 °C
Zero drift	max.	0.05 mT/K, typ. 0.03 mT/K (DC)
	AS-HAP max.	0.5 mT/K, typ. 0.3 mT/K (DC)
	AS-UAP max.	10 nT/K
Bandwidth	DC - f_{max}	
Noise	< 0.005 % of max. range	

Included in delivery:

- AS-active-probe
- manual
- factory calibration certificate

Option:

- probe extension cord to 10 m
- zero chamber
- linearity plot on request
test curve with 19 data points at max. three temperatures
- Interface IAS-4 for 4 AS-active-probes



AS-active-probes - overview

	output	range	typ	name	non-linearity	f _{max}	active area	figure	thickness D mm	length L mm	Operation temp. (°C)	application
High:	0.1 V/T	20 T ⁽³⁾ 2 T 200 mT	A	AS-HAP	< 3 %	35 kHz	0,2 mm ²	F	∅ 6.4	180	5 - 50	- impulse-magnetizers - superconductors
			T	AS-NTP	< 0.5 % to 1,5 T	35 kHz	2 mm ²	A	0.9 ± 0.1	70	5 - 50	- air gap, relay
Normal:	1 V/T	2000 mT 200 mT 20 mT	T-Ms	AS-NTM	< 0.2 %	25 kHz	0,2 mm ²	B	1.4 ± 0.1	70	5- 50	- magnets, E-motors, - SmCo, NdFeB, AlNiCo
			A	AS-NAP	< 0.5 %	35 kHz	0,2 mm ²	F	∅ 6.4	180	5 - 50	- air coils
			T	AS-NTP-Hot	< 0.2 %	35 kHz	0.2 mm ²	D	1.5 ± 0.1	70	-40 - 150 ⁽¹⁾	- low and high temperatures
			T	AS-NTP-Flex	< 0.5 % to 1,5 T	0.5 kHz	2 mm ²	C	0.5 ± 0.1	70	5 - 100 ⁽²⁾	- flexible and thin
			T	AS-NCu-Wire	< 0,5 % to 1,5 T	35 kHz	2 mm ²	E	0,6	180	5 -100 ⁽⁴⁾	- very thin
Low:	10 V/T	200 mT 20 mT 2 mT	T-Ms	AS-LTM	< 0.2 %	10 kHz	0.2 mm ²	B	1.4 ± 0.1	70	5 - 50	- residual magnetism - Helmholtz coils
			A	AS-LAP	< 0.5 %	10 kHz	0.2 mm ²	F	∅ 6.4	180	5 - 50	- magnetic sheets - Helmholtz coils
			T	AS-LCu-Wire	< 0,5 % to 1,5 T	35 kHz	2 mm ²	E	0,6	180	5 - 100 ⁽⁴⁾	- very thin
Ultralow:	1 V/100μT	200 μT 20 μT 2 μT	A	AS-UAP GEO-X	< 1 %	0.5 kHz	∅6 mm x 25 mm	G	∅ 18	64	5 - 50	- geomagnetism - weak fields
			A	AS-UAP Lot	< 1 %	500 Hz/ 5Hz	∅ 6 mm x 25 mm	H	∅ 18.8	150	5 - 50	- ± 70 μT compensation - IATA 902

Typ: T transverse probe T–Ms brass transverse probe for heavy duty A axial probe

(1) sensor, handle, cable = -40 - +150 °C; probe plug = 5 – 50 °C

(2) at first 70 mm = 5 - 100 °C; handle, cable and probe plug = 5 – 50 °C

(3) calibrated to 12 T

(4) at first 180 mm = 5 – 100 °C, handle, cable and probe plug = 5 – 50 °C

Figure A

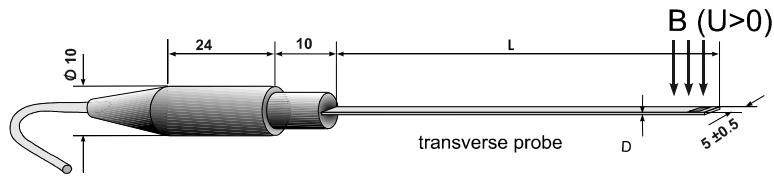


Figure B

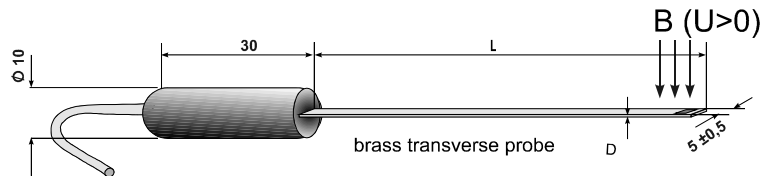


Figure C

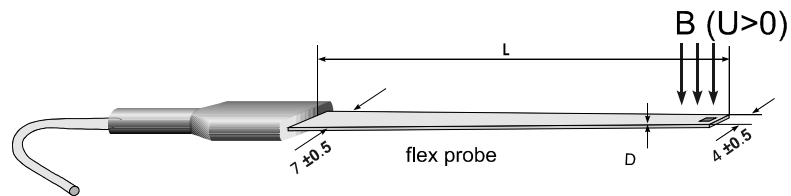


Figure D

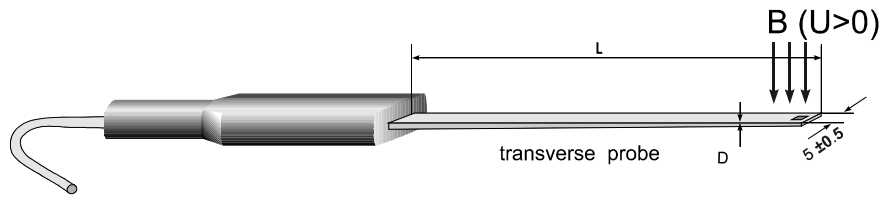


Figure E

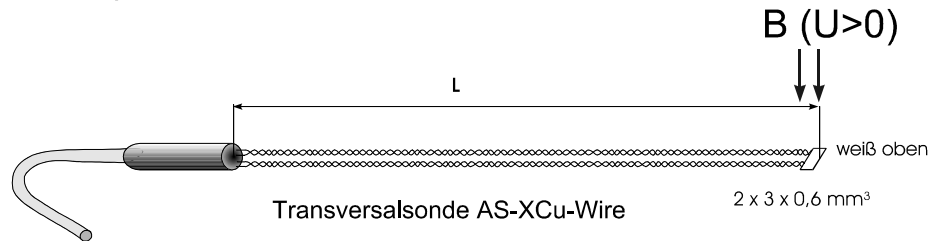


Figure F

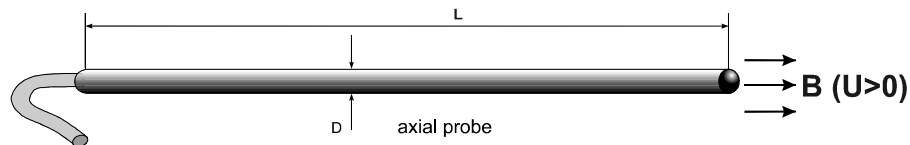


Figure G

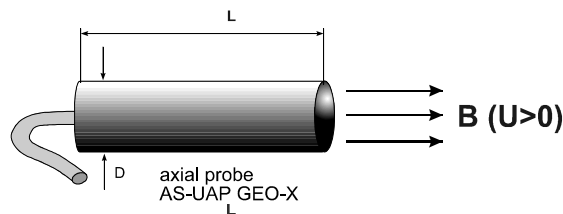
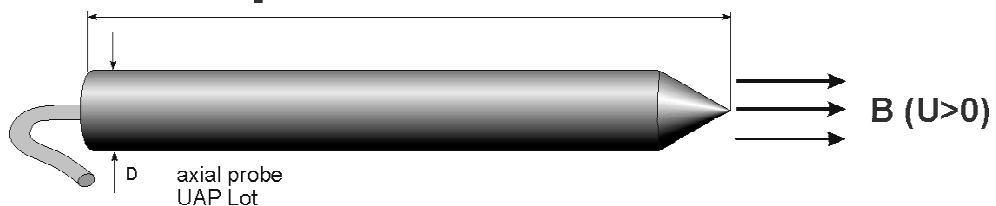


Figure H



Application Notes

On our website (<http://www.projekt-elektronik.com/applikation.php>) under Application you can find many additional documents with information, hints and examples for measuring of magnetic fields.

Operation of the AS-active-probes as transducer:

Our AS-active-probes also can be operated autonomously. Thereto merely they have to be powered externally with $\pm 3\text{ V}$ ($\pm 1\%$) or $+6\text{ V}$ ($\pm 1\%$) at max. 20 mA. Then the analog output signal of the AS-probes can be applied to the gain programmable amplifier input of a PLC.



Consulting and customization

We gladly stand at your disposal for questions about measuring tasks, manufacturing of probes, changing of measurement range, bandwidth or similar via telephone or email.

Your PE - Team