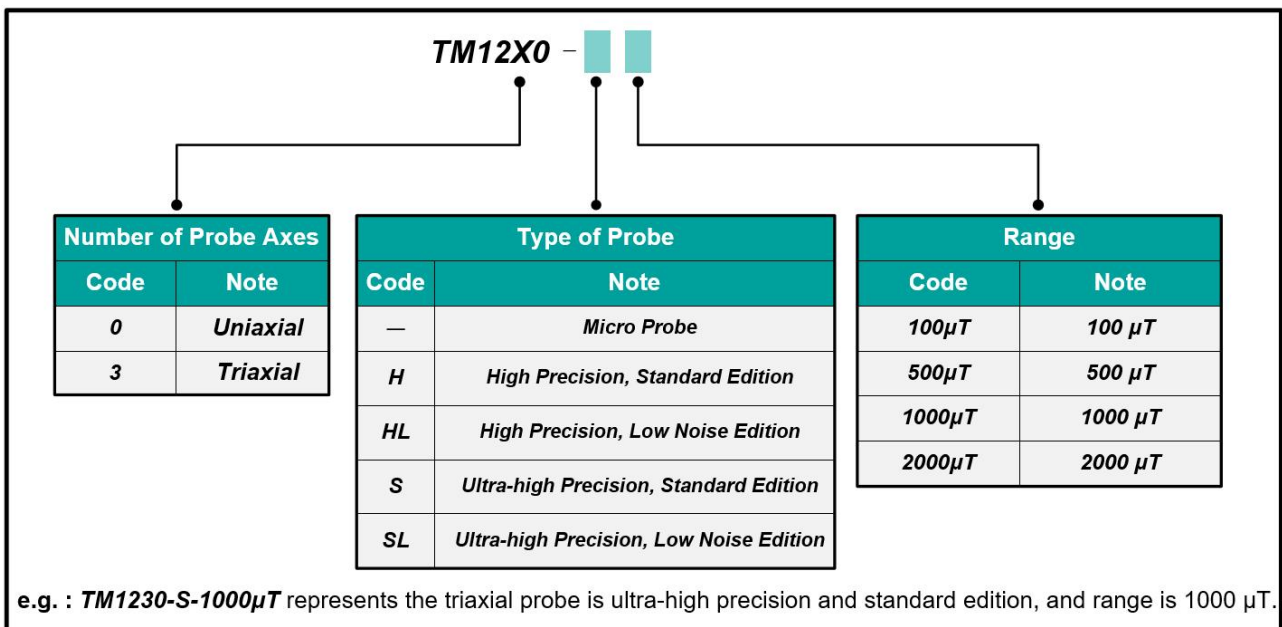


TM1200 / 1230 Fluxgate Probe

1 Summary

- Can be connected with a fluxgate magnetometer to measure the low magnetic field in space.
- TM1200 is a Uni-axial Fluxgate Probe and TM1230 is a Triaxial Fluxgate Probe.
- Types: Micro Probe, High-precision Standard Probe, High-precision Low-noise Probe, Ultra High-precision Standard Probe and Ultra High-precision Low-noise Probe.

2. Ordering Information



3. Specifications

☆ Micro Fluxgate Probe					
Probe Model	Number of Axes	Range	Noise $\sqrt{\text{Hz}} @ 1\text{Hz}$	Linearity	Frequency Response (-3dB)
TM1200-100 μT	uniaxial	100 μT	1.5nTrms	$\leq 0.5 \%$	DC to 400 Hz
TM1200-500 μT	uniaxial	500 μT	1.5nTrms	$\leq 0.5 \%$	DC to 400 Hz
TM1200-1000 μT	uniaxial	1000 μT	1.5nTrms	$\leq 0.5 \%$	DC to 400 Hz
TM1200-2000 μT	uniaxial	2000 μT	1.5nTrms	$\leq 0.5 \%$	DC to 400 Hz
TM1230-100 μT	triaxial	100 μT	1.5nTrms	$\leq 0.5 \%$	DC to 400 Hz
TM1230-500 μT	triaxial	500 μT	1.5nTrms	$\leq 0.5 \%$	DC to 400 Hz
TM1230-1000 μT	triaxial	1000 μT	1.5nTrms	$\leq 0.5 \%$	DC to 400 Hz
TM1230-2000 μT	triaxial	2000 μT	1.5nTrms	$\leq 0.5 \%$	DC to 400 Hz

Note: [1] Uniaxial micro-probe is suitable for TM4100B hand-held uniaxial fluxgate magnetometer.
 [2] Triaxial micro-probe adapts to TM4300B hand-held triaxial fluxgate magnetometer.

☆ High Precision Fluxgate Probe						
Probe Model	Number of Axes	Range	Noise $\sqrt{\text{Hz}} @ 1\text{Hz}$	Linearity	Frequency Response (-3dB)	Orthogonality
TM1200- H -100 μT	uniaxial	100 μT	$\leq 10 \text{ pT}_{\text{rms}}$	$\leq 0.01 \%$	DC to 1kHz	—
TM1200- HL -100 μT	uniaxial	100 μT	$\leq 6 \text{ pT}_{\text{rms}}$	$\leq 0.01 \%$	DC to 1kHz	—
TM1200- HL -500 μT	uniaxial	500 μT	$\leq 30 \text{ pT}_{\text{rms}}$	$\leq 0.02 \%$	DC to 1kHz	—
TM1200- HL -1000 μT	uniaxial	1000 μT	$\leq 50 \text{ pT}_{\text{rms}}$	$\leq 0.02 \%$	DC to 1kHz	—
TM1230- H -100 μT	triaxial	100 μT	$\leq 10 \text{ pT}_{\text{rms}}$	$\leq 0.01 \%$	DC to 1kHz	$\leq \pm 0.2^\circ$
TM1230- HL -100 μT	triaxial	100 μT	$\leq 6 \text{ pT}_{\text{rms}}$	$\leq 0.01 \%$	DC to 1kHz	$\leq \pm 0.2^\circ$
TM1230- HL -500 μT	triaxial	500 μT	$\leq 30 \text{ pT}_{\text{rms}}$	$\leq 0.02 \%$	DC to 1kHz	$\leq \pm 0.2^\circ$
TM1230- HL -1000 μT	triaxial	1000 μT	$\leq 50 \text{ pT}_{\text{rms}}$	$\leq 0.02 \%$	DC to 1kHz	$\leq \pm 0.2^\circ$

Note: [3] High-precision uniaxial/triaxial probes are suitable for TM4300B fluxgate magnetometer.

☆ Ultra-high Precision Fluxgate Probe						
Probe Model	Number of Axes	Range	Noise $\sqrt{\text{Hz}} @ 1\text{Hz}$	Linearity	Frequency Response (-3dB)	Orthogonality
TM1200-S-100 μT	uniaxial	100 μT	10 ~ 20 pT _{rms}	$\leq 0.01\%$	DC to 3kHz	—
TM1200-S-500 μT	uniaxial	500 μT	10 ~ 20 pT _{rms}	$\leq 0.01\%$	DC to 3kHz	—
TM1200-S-1000 μT	uniaxial	1000 μT	10 ~ 20 pT _{rms}	$\leq 0.01\%$	DC to 3kHz	—
TM1230-S-100 μT	triaxial	100 μT	6 ~ 10 pT _{rms}	$< 0.0015\%$	DC to 3kHz	$\leq \pm 0.1^\circ$
TM1230-S-500 μT	triaxial	500 μT	6 ~ 10 pT _{rms}	$< 0.0015\%$	DC to 3kHz	$\leq \pm 0.1^\circ$
TM1230-S-1000 μT	triaxial	1000 μT	6 ~ 10 pT _{rms}	$< 0.0015\%$	DC to 3kHz	$\leq \pm 0.1^\circ$
TM1230-SL-100 μT	triaxial	100 μT	≤ 6 pT _{rms}	$< 0.0015\%$	DC to 3kHz	$\leq \pm 0.1^\circ$

Note: [4] Ultra-high-precision uniaxial/triaxial probes are suitable for TM4300B fluxgate magnetometer.

☆ Probe Dimensions		
Probe Type	Number of Axes	Size (length, width and height)
Micro Fluxgate Probe	uniaxial	20mm 13mm 6.3mm
	triaxial	20mm 14mm 12mm
High Precision Fluxgate Probe	uniaxial	110mm 30mm 30mm
	triaxial	120mm 30mm 30mm
Ultra High Precision Fluxgate Probe	uniaxial	100mm 44mm 30mm
	triaxial	225mm 32mm 32mm