

DX Series



Data Sheet **DX-Mag**

CONTENT

System Overview

Highlights

Technical Data

Illustrations and Figures





System Overview

The analogue to digital converter series of type „DX“ are specially designed for a large dynamic range and high stability, which makes them suitable for almost all applications.

These ADC's have internal digital calibrations resulting in highly significant signal output. Due to this digital signal processing, all signals have the identical transfer function which allows for high precise post-processing of the data.



Highlights of the DX Series

- Low power consumption
- Very low noise, large dynamic range and high linearity
- Digital temperature compensation minimizes drifts
- Sensor output digitally error-corrected with respect to scaling and offset
- Small size and lightweight
- Single coaxial cable for power and data introduces minimal magnetic signature



Technical Data DX-Mag

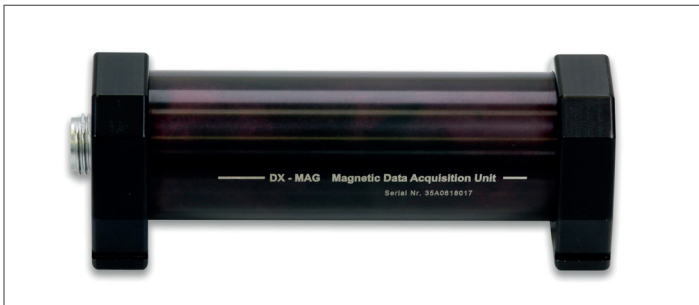
No. of channels	3
Diameter	60 mm
Length	165 mm
Weigth	0.5 kg
Power supply	16 VDC, 0.9 W
Interface connector type	LEMO coaxial series 0S, FFA.0S.250
Interface	PCMCIA type II
Degree of protection	Standard: IP65, higher protection on request
Input range	± 10 V
Noise @ 1 Hz	< 500 nV/rtHz
Sample rate	0.1 Hz – 10 kHz
Analogue filter	Anti aliasing
Digital filter	0 dB @ DC – fs/3, < -120 dB @ \leq fs/2
Resolution	10 nV
Crosstalk	< 126 dB
Max. bandwidth	4 kHz
Offset error (25 °C)	< 50 μ T
Offset drift (25 °C)	< 4 μ V/K
Scale error (25 °C)	< 5 ppm FS
Scale drift (25 °C)	< 1 ppm/K



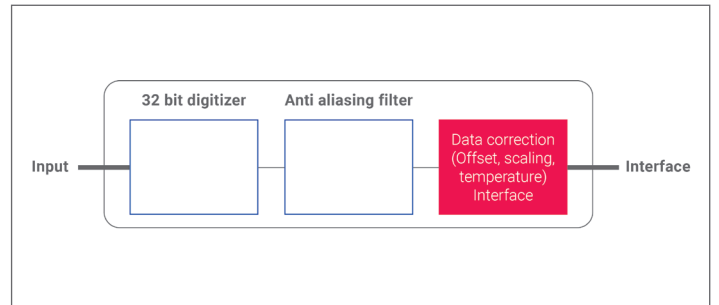
Illustrations and Figures



DX-Mag with coaxial cable (included)



DX-Mag sideview

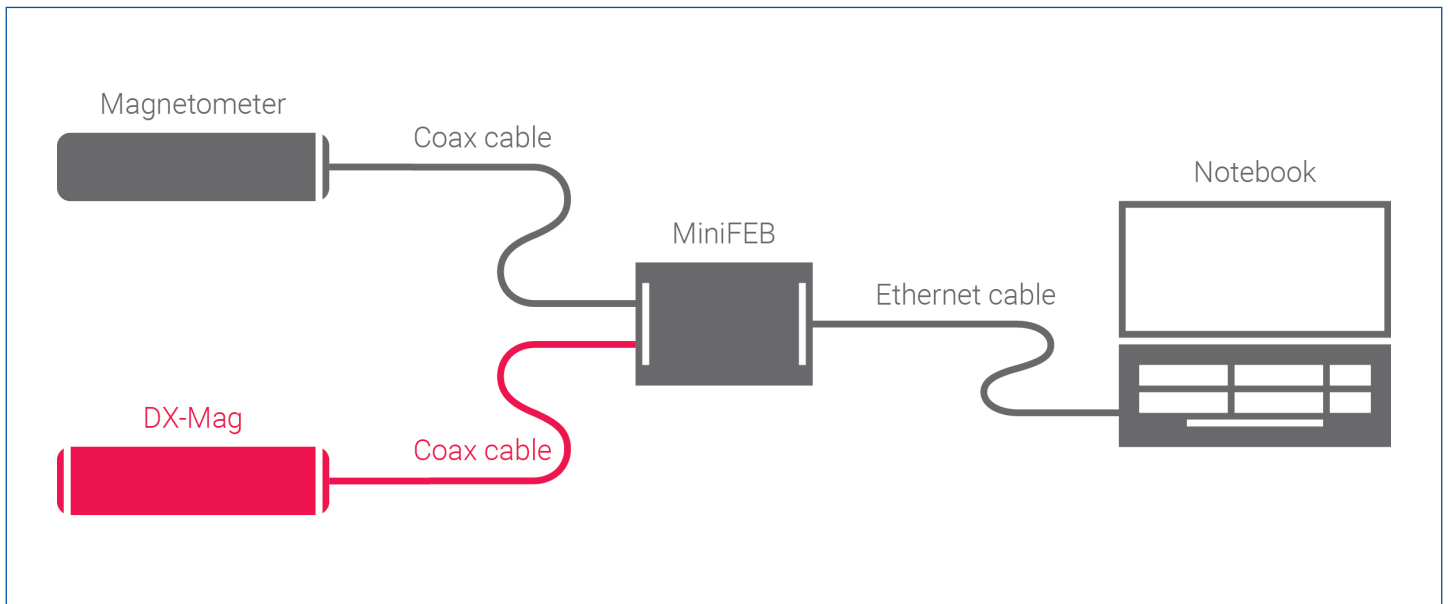
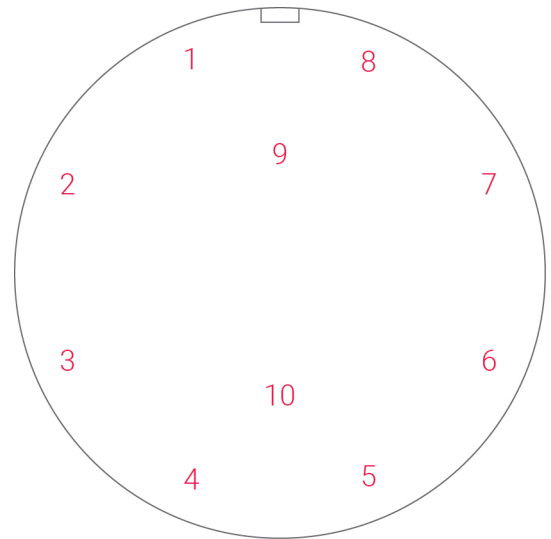


Functional overview



DX-Mag coaxial interface

Pin No.	Function
1	Input channel 1
2	Input channel 2
3	Input channel 3
4	Signal reference ground
5	Power ground to ± 12 V magnetometer power supply
6	Magnetometer power supply + 12 V
7	Magnetometer power supply - 12 V
8	NC
9	NC
10	Temp. input with ground to pin 5



Component scheme