ML-110-0330 - Dual Inclino Sensor – Heavy Duty

Robust dual axis inclinometer with programmable filter

Features:

- Robust Stainless Steel housing
- High resolution (0.01°) and accuracy (±0.02°)
- Compensated temperature coefficient (10x improved temperature coefficient to standard)
- Compensated cross sensitivity
- CAN/CANopen Interface (Serial / Ethernet / Profibus optional)
- 2-dimensional ±60° (±90°/ 1 axis-360° optional)
- High sampling rate and bandwidth
- Programmable vibration suppression (digital filter)
- Setting Node ID and baud rate via LSS Service

Specifications:

- Diameter 210mm, height 40mm
- Weight 6.7kg
- Operating temperature -20 °C ... +80 °C (-40 °C optional)
- Cross Sensitivity (compensated) typ. ±0.10 %, max. ±0.50 %
- Temp. coefficient (zero point) typ. ±0.0008 °/K (typ. < ±0.10° over range -40 °C ... +80 °C)
- Cut-off freq. typ. 20 Hz, 2nd order (no filter) / 0.1 … 25 Hz, 8th order (with digital filter)
- Supply voltage 8 ... 48 VDC
- Current consumption <200 mA @ 24 V (PPeak ≤4.8 W)

See next page for application filters.

Programmable Application Filters

The DIS-HD offers the possibility to suppress the influence of external disturbing vibrations. The internal lowpass digital filters (8th order) are programmable down to 0.1 Hz. The sensor has two digital filters that can be selected according to the application of the sensor.

Filter	Adjustable frequency range	Applications
Butterworth	0,1 Hz ... 25 Hz	Static inclination measurement with high damping to vibration
Critical damped	0,1 Hz ... 8 Hz	Inclination measurement in applications that requires a certain dynamism, without overshoot at angle changes with good damping

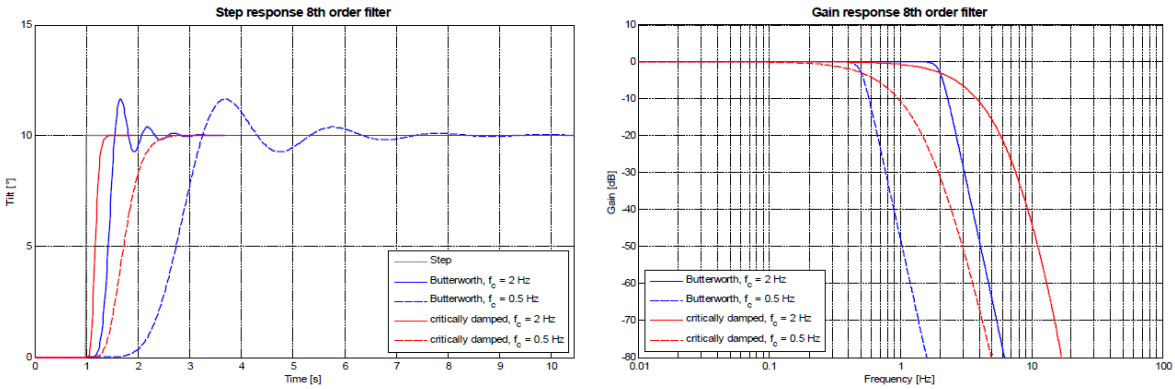

Fig 1. Impulse and amplitude response of the two filters

One of these filters can be selected and programmed on client specification before shipping or by the client afterwards by CANopen protocol (details available).

Contact

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