

# FiSpec NEO100

The NEO100 FBG Interrogator is FISENS' latest instrument for precise FBG measurements, offering up to 100 sensing points over 4 fibers. Designed for easy industrial integration, it supports major fieldbuses such as PROFINET, CAN, and Ethernet. Powered by an RTOS and featuring a web server and OTA firmware updates, the NEO30 enables straightforward, IoT-ready multipoint temperature and strain sensing.

- Up to 4 Channels & 100 Sensing Points
- IoT-ready
- High Precision/Accuracy
- Easy Installation



## Performance

Type	NEO100-2	NEO100-4
Number of Channels	2	4
FBG Sensors/Channel	Up to 25	
Total FBG Sensors	50	100
Max. Sampling Rate	up to 1 kHz (simultaneous)	

## Per Fiber Channel

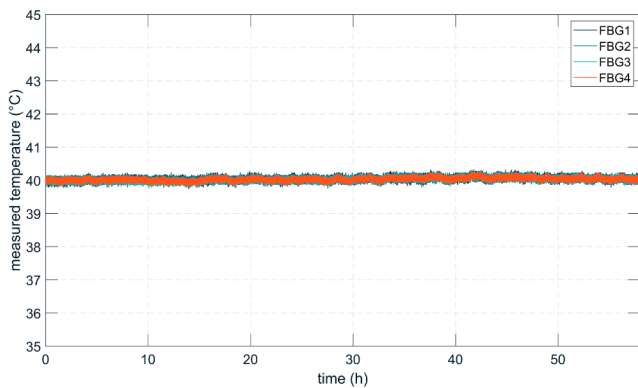
	Wavelength	Typ Temperature	Typ Strain
Total Measurement Range	72 nm	11,000 °C	110,000 µm/m
Precision (10 Hz, 2σ)	0.6 pm	0.1 °C	1 µm/m
Accuracy*	6 pm	1 °C	10 µm/m
Repeatability	2 pm	0.3 °C	3 µm/m

\* for a device ambient operating temperature range of 10-50°C

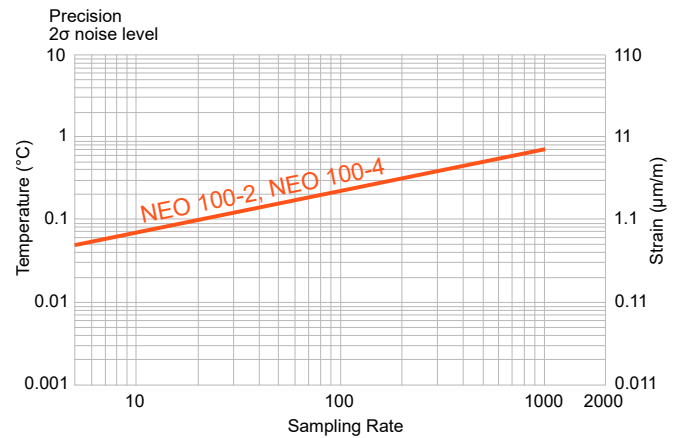
## Physical & Communication

Operating Temperature	-20 to 70 °C	
Storage Temperature	-40 to 80 °C	
Dimensions	162.5 x 155 x 49 mm <sup>3</sup>	
Weight	750 g	
Power Consumption	4 W	6 W
Optical Interface	LC/APC	
Electrical Interface	10-28 VDC, USB, Ethernet, CAN	
Data Protocol	CANopen, CAN Raw, PROFINET, TCP and MQTT (on request)	

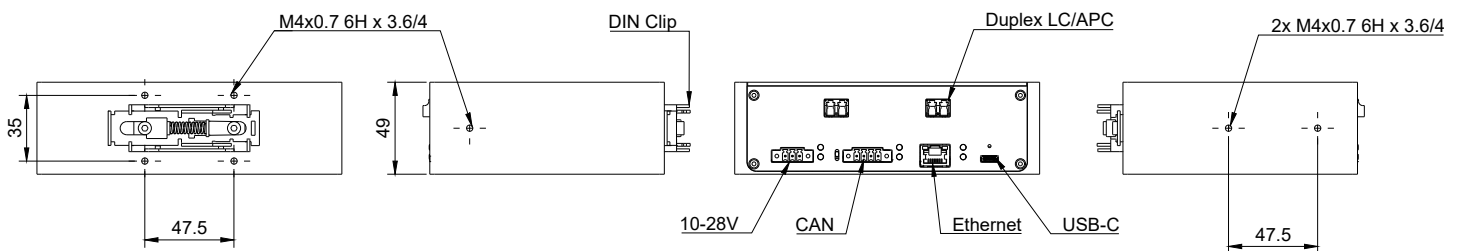
### Long-Term Stability (<0.06 °C @ 60 h, $\sigma$ )



### Typ Precision vs. Sampling Rate (Hz)

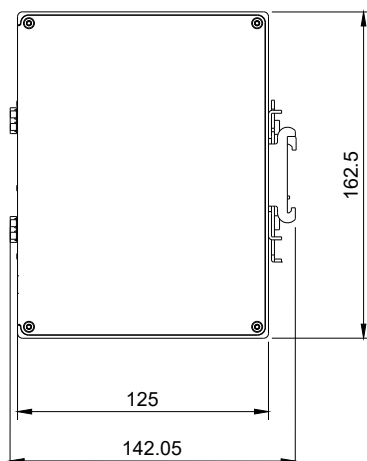


## Technical Drawing



### NEO100-4

Channel 1  
Channel 2  
  
Channel 3  
Channel 4



### NEO100-2

Channel 1  
Channel 2

