

DI...

Interrogators for optical strain gages (SG)

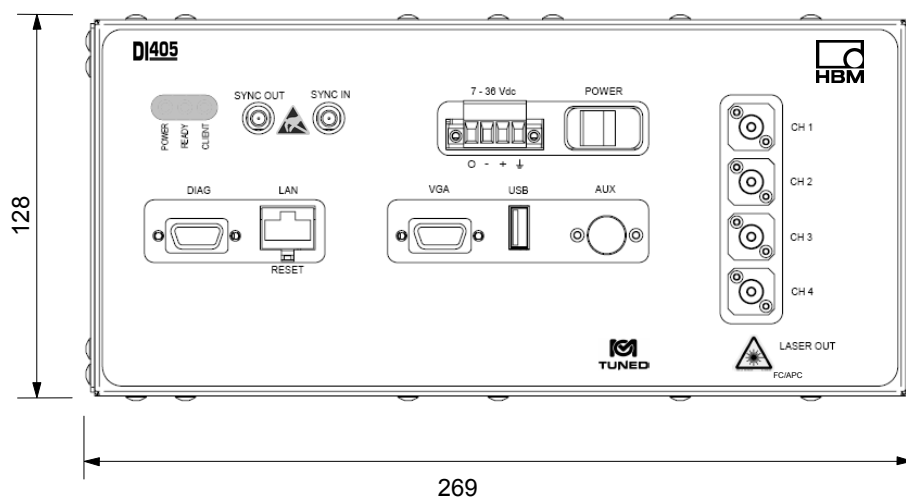


Special features

- For dynamic data acquisition with sampling rates up to 1000 1/s
- Excellent precision and long term stability
- Measuring range (spectrum) from 1510 ... 1590 nm
- Multiplexer can be connected to increase number of optical sensor chains
- Setup and data transfer through Ethernet interface
- Fast, tunable laser frequency generator
- Traced to NIST (National Institute of Standards and Technology)

Dimensions (in mm; 1 mm= 0.03937 inches)

Instrument designation:: DI101; DI105; DI110; DI405; DI410



Housing depth: 132

View of the unit with four connectors for the optical sensor chains

Specifications

DI...

Type		DI101	DI105	DI110	DI405	DI410
Number of optical sensor chains that can be connected		1	1	1	4	4 ¹⁾
Wavelength range (Measuring range)	nm	1520 ... 1580	1510 ... 1590	1510 ... 1590	1510 ... 1590	1510 ... 1590
Wavelength variation per 10 K	pm	< 2				
Repeatability ²⁾	pm	1 resp. 0.05 with averaging of 1000 measuring values				
Dynamic range	dB	25 (adaptable amplification)				
Sampling rate	1/s	100	500	1000	500	1000
Max. data transmission rate	1/s	50000				
Optical connector sockets		FC/APC				
Ambient conditions						
Nominal temperature range	°C [°F]	0 ... +50 [+32 ... +122]				
Ambient humidity range	% rel. h.	0 ... 80, non-condensing				
Storage temperature range	°C [°F]	-20 ... +70 [-4 ... +158]				
Storage humidity range	% rel. h.	0 ... 95, non-condensing				
Electrical connection values						
Supply voltage	V	+12 (+7 ... +36) via power pack				
Power pack	V _{AC}	100 ... 240 (with 47 ... 63 Hz)				
Power consumption	W	typ. 25, max. 50				
Interface		Ethernet (TCP/IP)				
Weight, approx.	kg	2.5				

¹⁾ expandable to 8 or 16 channels via Multiplexer 1-M408 or 1-M416

²⁾ NIST Technical Note 1297, 1994

Modifications reserved.

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Hottinger Baldwin Messtechnik GmbH

Im Tiefen See 45 · 64293 Darmstadt · Germany
 Tel. +49 6151 803-0 · Fax: +49 6151 803-9100
 Email: info@hbm.com · www.hbm.com

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