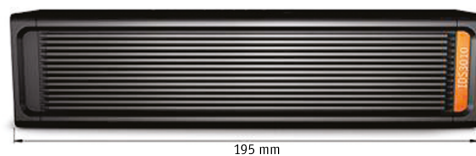
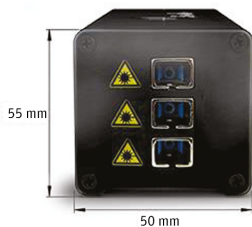


# IDS3010/SMF

## Technical Specifications

Sensor	
no. sensor axes	3
working distance	0...5000 mm (depending on sensor head)
sensor resolution	1 pm
sensor repeatability	2 nm (at 10 mm working distance in vacuum conditions)
max. target velocity	2 m/s
measurement bandwidth	10 MHz
signal stability (WD: 20mm)	0.286 nm (2 s)
signal stability (WD: 50mm)	0.530 nm (2 s)
signal stability (WD: 100mm)	1.035 nm (2 s)
Modes of Operation	
measurement mode	displacement
remote operation	integrated webserver
output signal: displacement measurement	laser light (IR)
output signal: alignment laser	laser light (VIS)
sensor alignment	via integrated webserver
sensor initialization	via integrated webserver
factory resetable	via GPIOconnector
Working Conditions	
controller	ambient conditions
sensor heads	depending specifications
ECU	ambient conditions

Interfaces	
analog interfaces	sin/cos (real time)
digital interfaces	AquadB, HSSL (real time)
interface bandwidth sin/cos	up to 25 MHz
interface bandwidth AquadB	up to 25 MHz
interface bandwidth HSSL	up to 25 MHz
interface bandwidth field bus systems	depending on field bus system
resolution sin/cos (inc.)	freely assignable; 1 pm - 2^24 pm
resolution AquadB (inc.)	freely assignable
resolution HSSL (abs.)	8 - 48 bit
resolution field bus systems	depending on implemented protocol
Controller Hardware	
chassis	55 x 52 x 195 mm <sup>3</sup>
power supply	12 VDC
power consumption	8 W
laser source (measurement laser)	DFBlaser (class1)
laser output power (measurement laser)	max. 400 µW
laser wavelength (measurement laser)	1530 nm
wavelength stability (measurement laser)	50 ppb
laser source (alignment laser)	fiber-coupled laser diode
laser output power (alignment laser)	< 1 mW
laser wavelength (alignment laser)	650 nm
Accessories	
accessories names	IDSH sensor heads, IDSMF single mode fibers, FVFT vacuum feedthroughs, IDSECU
Software Drivers	
web browser	no software drivers necessary as all functionality is accessible via Ethernet (integrated webserver)



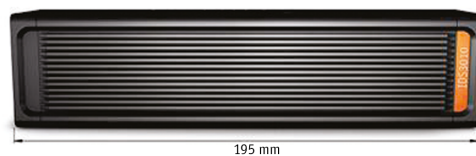
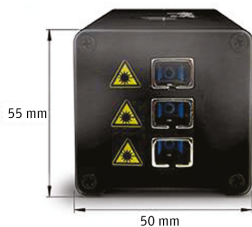
- ① GPIO (General Purpose Input/Output)
- ② Main Power
- ③ Ethernet
- ④ Real-Time Interfaces
- ⑤ ECU
- ⑥ CanOPEN

# IDS3010/Biss-C

## Technical Specifications

Sensor	
no. sensor axes	3
working distance	0...5000 mm (depending on sensor head)
sensor resolution	1 pm
sensor repeatability	2 nm (at 10 mm working distance in vacuum conditions)
max. target velocity	2 m/s
measurement bandwidth	10 MHz
signal stability (WD: 20mm)	0.286 nm (2 s)
signal stability (WD: 50mm)	0.530 nm (2 s)
signal stability (WD: 100mm)	1.035 nm (2 s)
Modes of Operation	
measurement mode	displacement
remote operation	integrated webserver
output signal: electronics	BISS-C
output signal: displacement measurement	laser light (IR)
output signal: alignment laser	laser light (VIS)
sensor alignment	via integrated webserver
sensor initialization	via integrated webserver
factory resetable	via GPIOconnector
Working Conditions	
controller	ambient conditions
sensor heads	depending specifiactions
ECU	ambient conditions

Interfaces	
field bus interfaces	BiSS-C
interface bandwidth BiSS-C	up to 10 MHz (master clock frequency)
external master clock	up to 10 MHz
clock interferometers axes	independent clock input
BiSS-C configuration	point-to-point
interface connector	14 pin GPIO connector (included)
resolution BiSS-C	adjustable by user ( $2^n$ ) . 1 pm, n = 0..15 )
signal levels	differential RS-422 standard
no. position bits	32 bit
Controller Hardware	
chassis	55 x 52 x 195 mm <sup>3</sup>
power supply	12 VDC
power consumption	8 W
laser source (measurement laser)	DFBlaser (class1)
laser output power (measurement laser)	max. 400 $\mu$ W
laser wavelength (measurement laser)	1530 nm
wavelength stability (measurement laser)	50 ppb
laser source (alignment laser)	fiber-coupled laser diode
laser output power (alignment laser)	< 1 mW
laser wavelength (alignment laser)	650 nm
Accessories	
accessories names	IDSH sensor heads, IDSMF single mode fibers, FVFT vacuum feedthroughs, IDSECU
Software Drivers	
web browser	no software drivers necessary as allfunctionality is accessible via Ethernet(integrated webserver) a



- ① BiSS-C interface connector
- ② Main Power
- ③ Ethernet
- ④ Deactivated Real-Time Interfaces
- ⑤ ECU