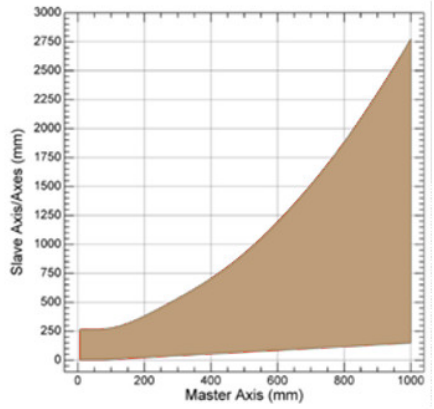
Displacement Measuring Interferometer

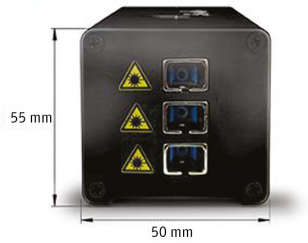
1010623

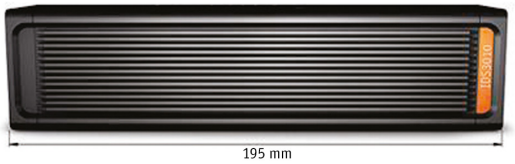
Technical Specifications

Sensor	
number of sensor axes	3
working distance	0...5000 mm (depending on sensor head)
sensor resolution [pm]	1
max. target velocity [m/s]	2
measurement bandwidth	10 MHz
signal stability (WD: 77 mm)	0.110 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 GPIO connector
Working Conditions	
controller	ambient conditions
sensor heads	depending specifiactions
ECU	ambient conditions
Interfaces	
analog interfaces	sin/cos (real time), linear analog (real time, optional)
digital interfaces	AquadB, HSSL (real time)
real-time interface bandwidth [MHz]	up to 25
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.) [bit]	8 - 48
resolution field bus systems	depending on implemented protocol
Controller Hardware	
chassis	55 x 52 x 195 mm^3
weight	730 g
power supply	12 VDC
power consumption [W]	8
laser source (measurement laser)	DFBlaser (class1)
laser output power (measurement laser) [µW]	max. 400
laser wavelength (measurement laser) [nm]	1530
laser source (alignment laser)	fiber-coupled laser diode
laser output power (alignment laser) [mW]	< 0,5
laser wavelength (alignment laser) [nm]	650
Accessories	
Accessories	IDSH sensor heads, IDSECU, IDSMF single mode fibers, FVFT vacuum feedthroughs
Software Drivers	
web browser	no software drivers necessary as allfunctionality is accessible via Ethernet and C#-DLLs



The working distances are limited on the dependency of the used axis. Depending on the master axis' working distance (defined via integrated webserver or DLL function), the working distances of the remaining axes are restricted to the range showing on the figure (see left).





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