



SCU – System Control Unit for 912 / 915 iS

Version 5, 14.01.2020

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RS  FLIGHT
SYSTEMS

System Control Unit SCU 9iS



System Control Unit Overview

Aircraft / Gyro / Helicopter



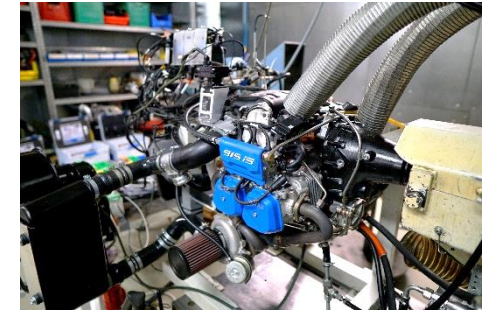
- Single Lever Power Control (SLPC)
- Start Power function
- LANE C output for EMS displays
- Ext. Display Panels
- Options: Intercooler Fan Control, Start Key Switch

Drone / UAV / eVTOL



- Single Lever Power Control (SLPC)
- Autothrottle control
- Engine control incl. automatic engine startup procedure
- LANE A/B control
- Telemetry Interface

Test stand

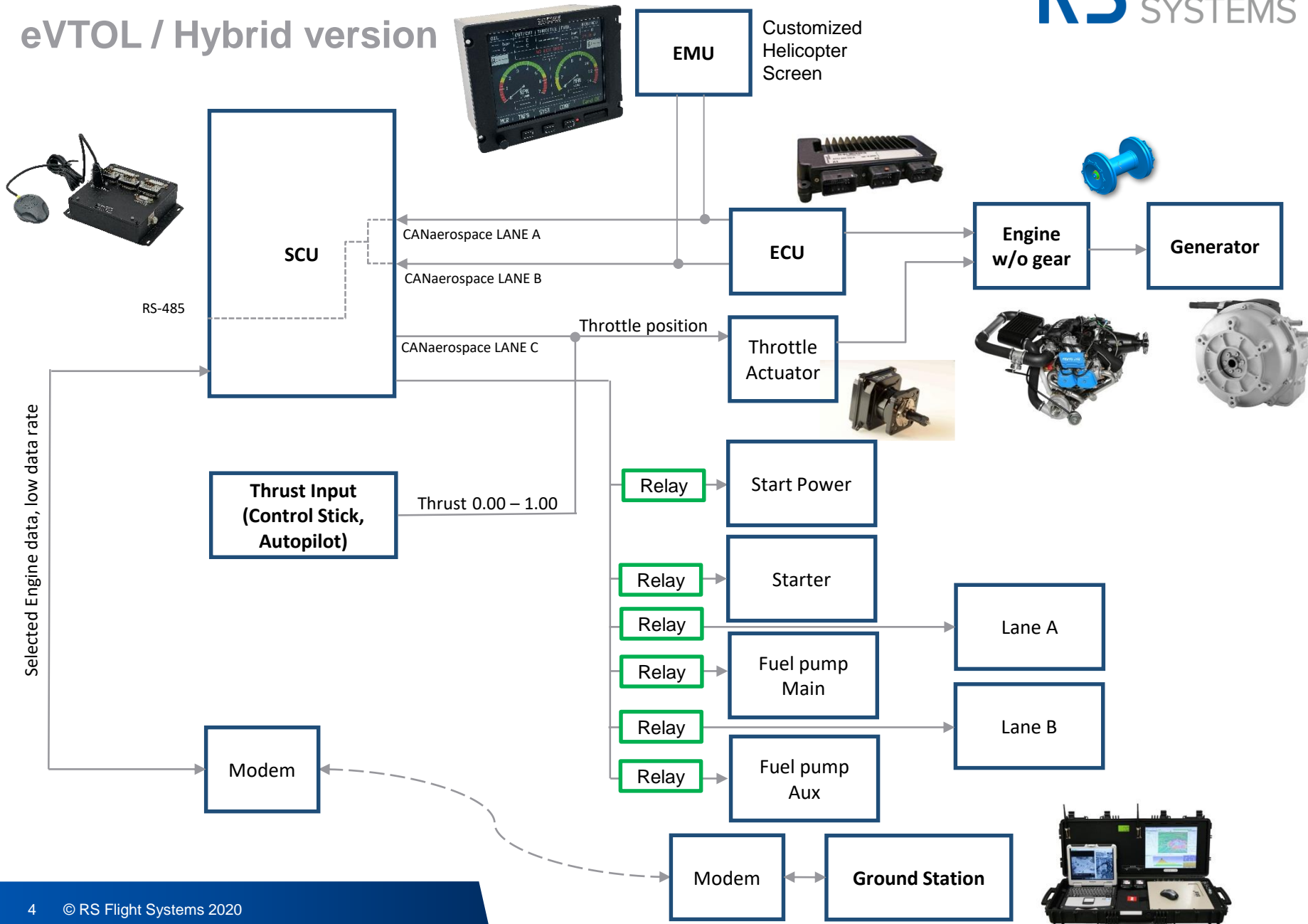


- Autothrottle Control
- Automatic engine control incl. Automatic engine startup
- LANE A/B Control
- Interface to PC/Mac
- PC/Mac test stand software

Georeferenced data recording on SD Card
Three optically isolated CANaerospace data bus interfaces
Additional analog and digital input and output channels

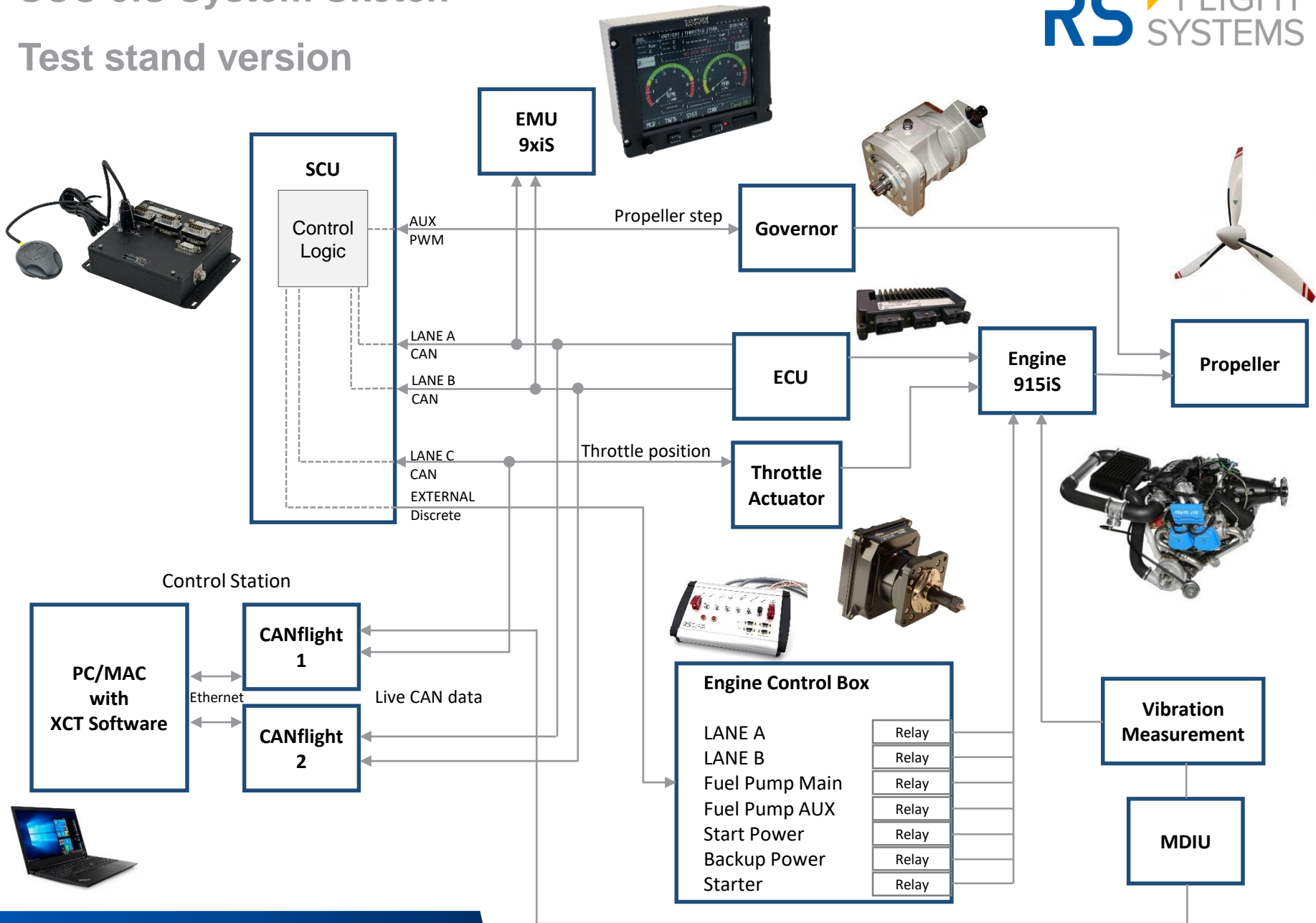
SCU 9iS System Sketch

eVTOL / Hybrid version



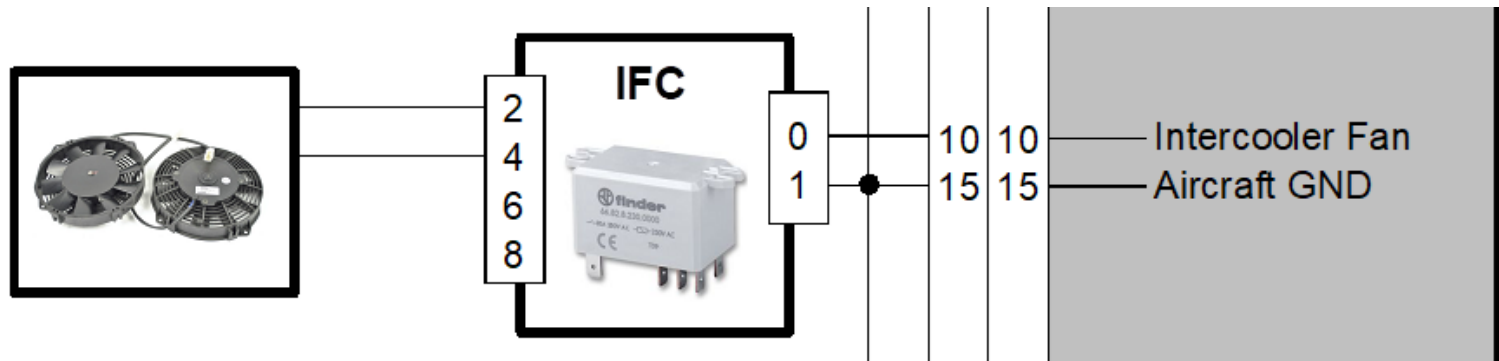
SCU 9iS System Sketch

Test stand version



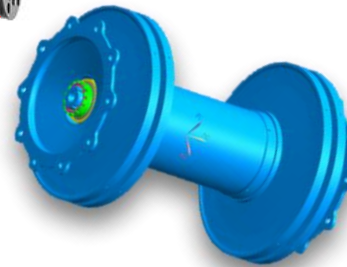
Automatic Intercooler Fan Control

In order to control an electrical fan for the intercooler, the EMU is equipped with automatic relay control for the fan activation. If the manifold temperature rises above 45 °C, the output gets active and switches the IFC relay on. The relay holds on until the manifold temperature falls below 40 °C.



- Prevents overheat during hover
- Ensures max. power in hot conditions

915 iS direct drive for Hybrid Systems



Direct drive



Generator

Input = crank shaft rpm
5500 rpm continuous
5800 rpm max

915 iS direct drive



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915 iS direct drive

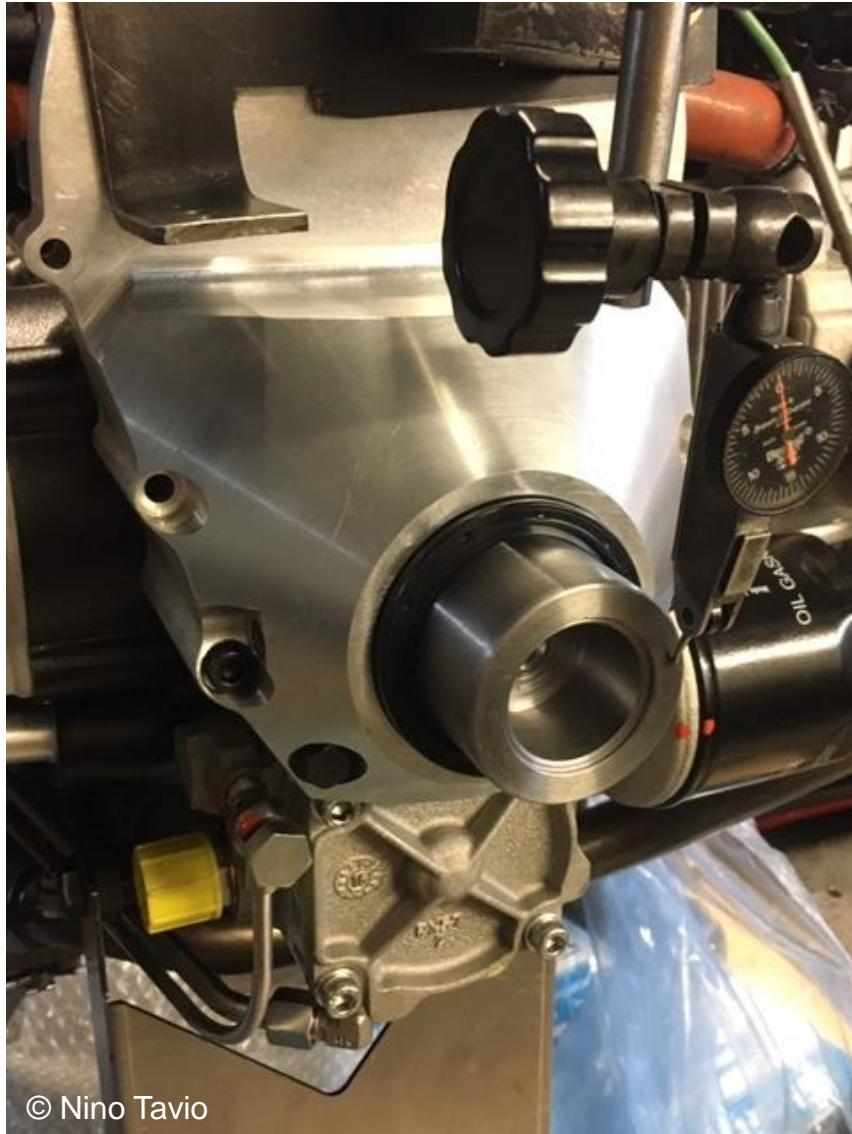


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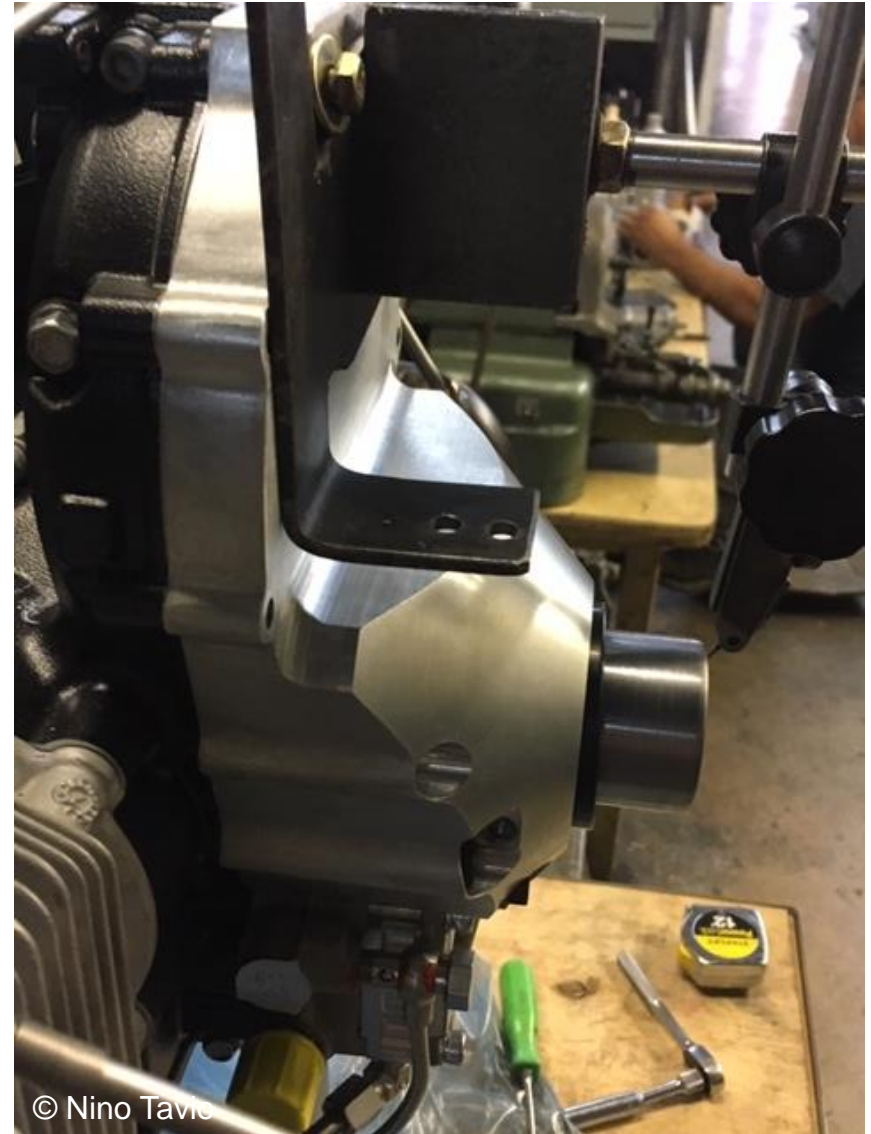


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915 iS direct drive

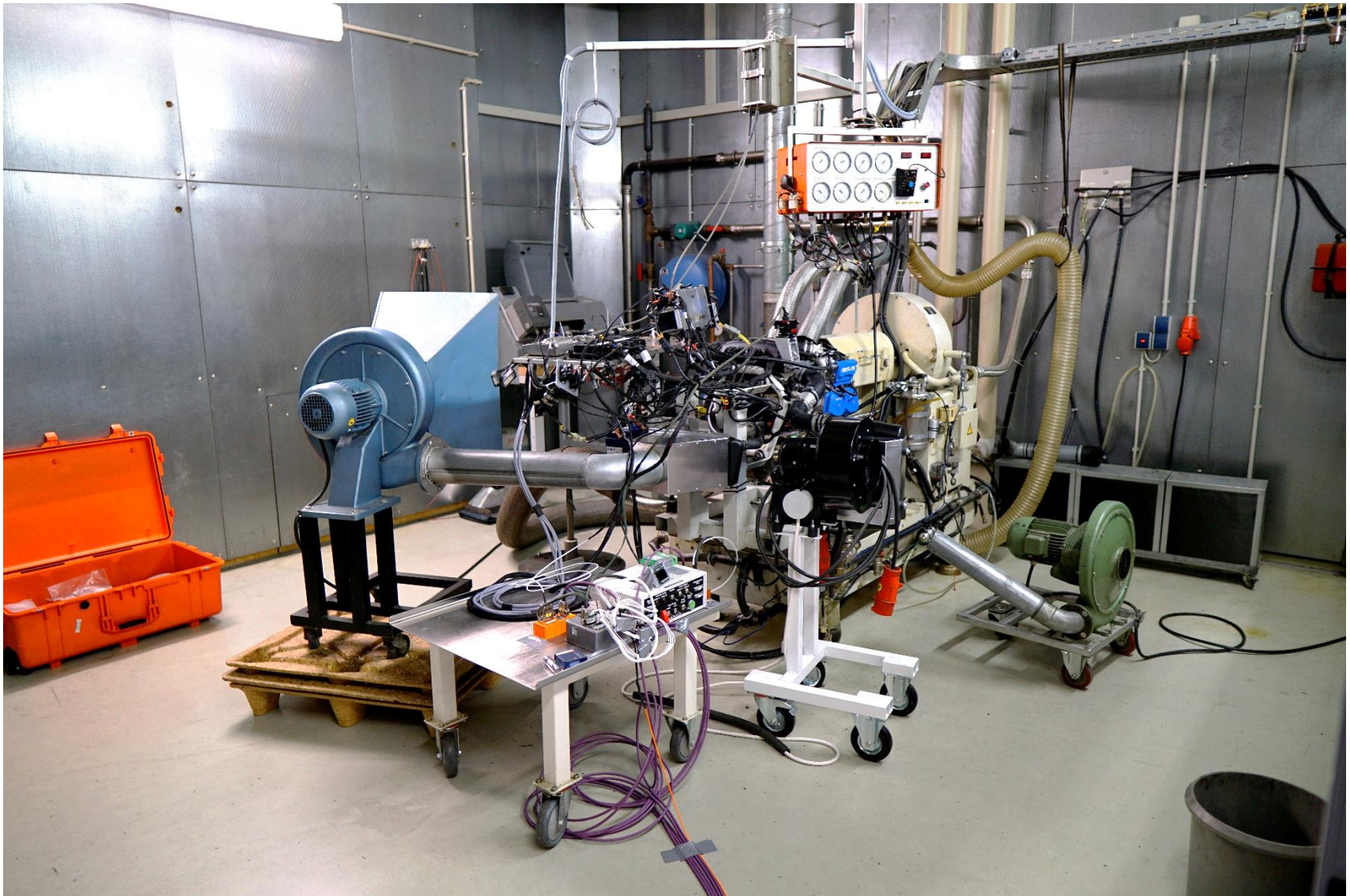


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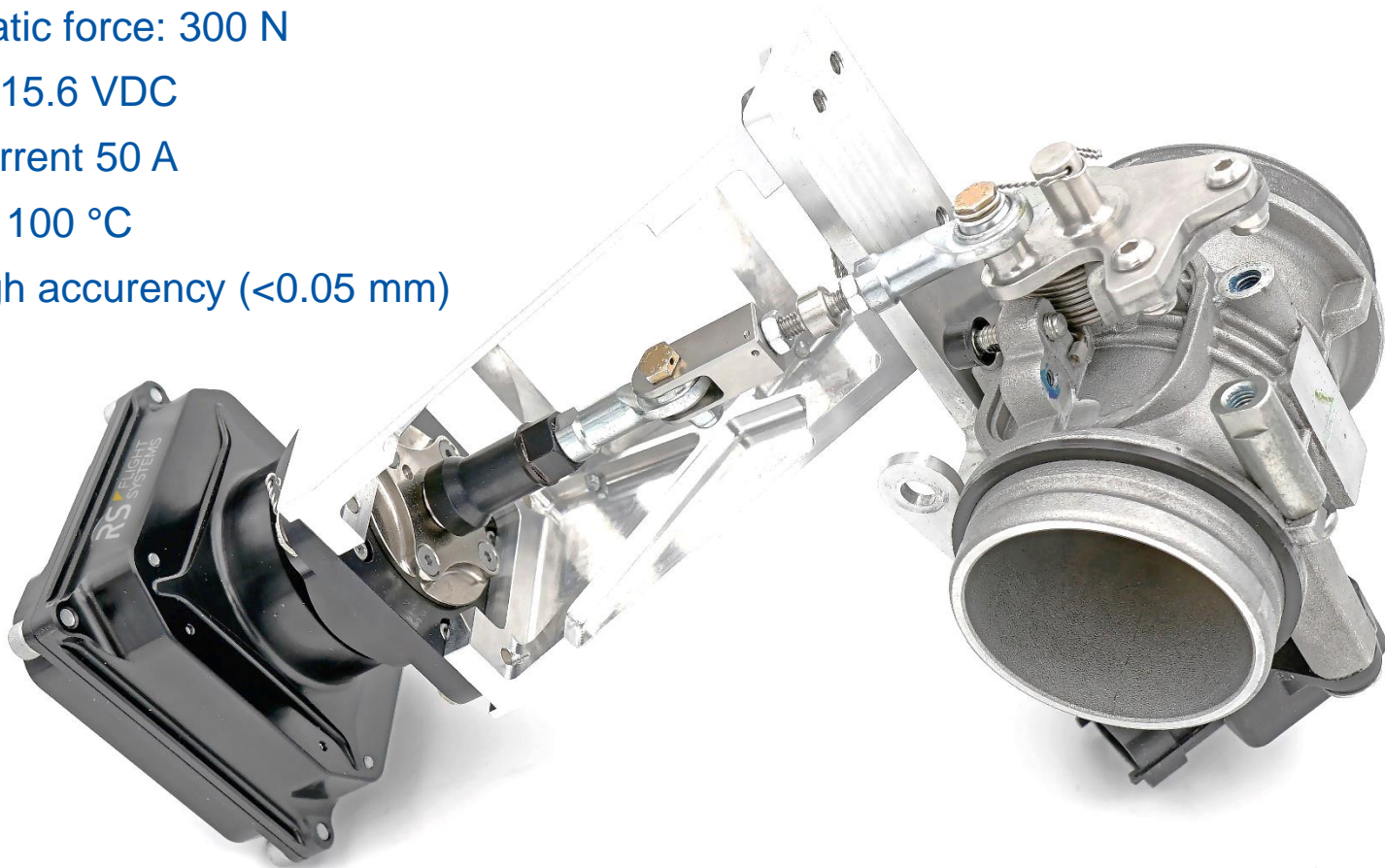
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Engine test stand with SCU 9iS and 915 iS



Autothrottle system 912 / 915 iS

- Idle – Full throttle: 0.08 sec.
- Max. dynamic force: 500 N
- Max. static force: 300 N
- 13.5 ... 15.6 VDC
- Max. current 50 A
- -25°C – 100 °C
- Very high accuracy (<0.05 mm)

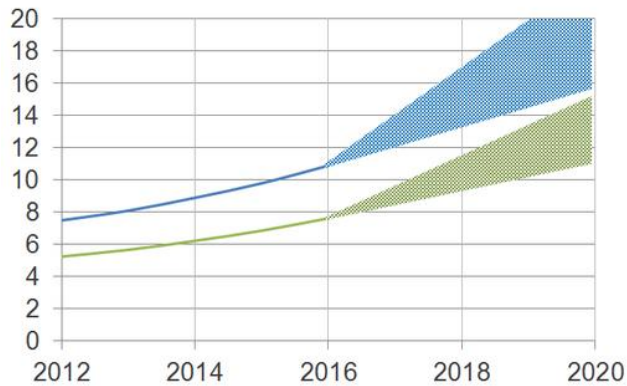


Compact Dynamics

<https://www.compact-dynamics.de/en/aviation/>



kW/kg E-Motor + Inverter + Housing



2-3 min

continuous



Period	2013	2015	2016
Take-off power	85 kW	270 kW	400 kW
Continuous power	55 kW	190 kW	260 kW
Power density (peak) incl. power electronics	8.1 kW/kg	10 kW/kg	10.9 kW/kg



+ 47°57'52N - 11°24'10E



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