

Blade Tip Clearance & Blade Tip Timing Measurement System for Aero-engine Flying Test Bed applications



New Turnkey Solutions from the world leader for BTC & BTT measurements for test and validation

Measurement System for Flying Test Bed applications

Flying Test Bed applications (FTB) aim to perform In-Flight conditions validation of Aero-engines. FTBs require advanced and adapted instrumentation to enable On-Wing measurements.

CAPABLADE fusion for FTB is the turnkey solution proposed by FOGALE Sensors for your Aero-engine Flying Test Bed applications.

This ruggedized acquisition system based on Capablade Fusion architecture, with up to 12 MC925 capacitive modules, enables all the Blade Health Monitoring capabilities (Tip Clearance and Tip Timing measurements) from Capablade Fusion solution. The system is able to operate stand alone to start and stop acquisition, without the Capablade Client software.

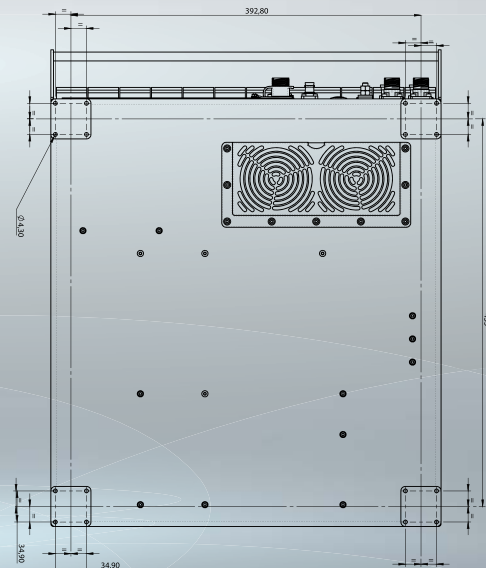
An automatic regulation of internal temperature allows the system to start and stand operation in severe environmental conditions.

The ruggedization makes the **CAPABLADE fusion for FTB** able to stand load factors as indicated in the following table.

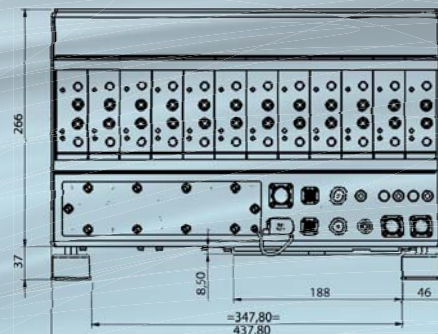
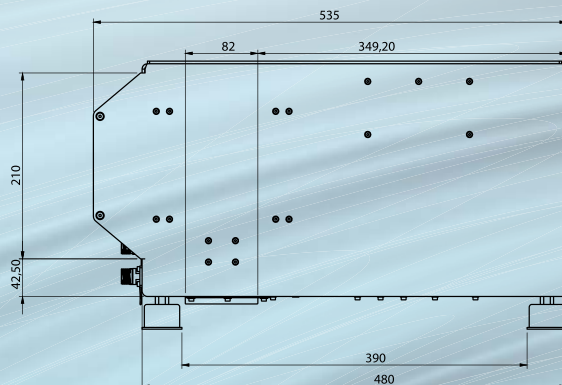


CAPABLADE Fusion for FTB with 8 MC925

Load factors	Units	Values				
Operational Temperature Range	°C	-40 / +50 (Max slope 2°C/min)				
Storage Temperature Range	°C	-40 / +50				
Relative Humidity (RH)	%	90% @ 50°C				
Operational Acceleration level / shocks	g	6g - 11ms				
Storage Acceleration level / shocks	g	20g - 11ms				
Ultimate Static Acceleration	g	Negative		Positive		
		Axe X	-9	+9		
		Axe Y	-9	+3		
		Axe Z	-10	+10		
Vibrations	g ² /Hz	From 10 to 40 Hz:	0,003			
		From 40 to 100 Hz:	0,003 to 0,0005			
		From 100 to 500 Hz:	0,0005			
		From 500 to 2000 Hz:	0,0005 to 0,00003			
Altitude / pressure	m and kPa	4600m / 57.2 kPa				



Technical specifications	
Dimensions	Width: 392,80 mm
	Height: 303 mm
	Depth: 435 mm
Weight	19 kg
Noise level	< 70 dB
Power consumption	< 600 W



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