



# GST 6108

(P/N 610007AB)

(P/N 610007MB)

## The Future of Leakage Measurement in Hydraulic Systems of Aircrafts



Reliability Increase  
of Hydraulics Control for  
the A320, A330 / A340,  
A350 family and A400M



# GST 6108

## The Ultrasonic Leakage Meter



FLEXIM's ultrasonic leakage meter checks and monitors the functionality and internal leak rate of the green, yellow and blue hydraulic systems for the complete, Left-Hand Wing, Right-Hand Wing and Tail sections.

This portable instrument is rapidly installed thanks to the non-intrusive measurement with ultrasound. The transducer is simply clamped onto the pipe and connected to the unit. After selection of the aircraft type and measuring point designation, the test results (pass/fail) are displayed.

### The leakage meter is used for:

Maintenance Task:	AMM / ATA chapter 29, C-check
Model of Aircraft:	<p><b>Airbus A320 family</b>, Post Mod 36625 (A318, A319 CJ, A319-100, A320-100, A320-200, A321-100, A321-200)</p> <p><b>Airbus A330 / A340 family</b>, Post Mod 58345 (A330-200, A330-300, A340-500, A340-600)</p> <p><b>Airbus A400M</b></p> <p><b>Airbus A350 family</b> (when entering service)</p>
Airbus Approval:	<p>Ground Support Equipment Certificate of Acceptance Certificate No.: D29017, D29031, D29032, D29062</p>



GST 6108M for Airbus A400M



## Features

- **Reduced maintenance time during C-Check**
- **No Ground Service Manifold necessary**
  - less weight aboard the aircraft
  - less potential in-flight leak source
- **Clamp-on measurement with portable instrument**
  - no need to open the hydraulic system, no additional leakage source during maintenance
- **The transducer can be installed on different parts of the hydraulic system**
- **Transfer of measuring data from the leakage meter to a PC possible for analysis and visualization of the data and management of data files**
- **User-friendly operation thanks to the clearly structured user interface**
- **Highly useful in troubleshooting applications; allows for mixed operation:**
  - hydraulic equipment check
  - volume flow check
  - accumulator check
- **Test result (pass/fail) bases on the measuring point's specific limit values saved in the internal data base of the instrument**
- **Cost reduction**
- **No Hydraulic Ground Power Cart required**



## GST 6108: Technical Data

### Measurement

Measuring principle:	ultrasonic time difference correlation principle	
Flow velocity:	(0.01 to 25) m/s	[(0.03 to 82) ft/s]
Resolution:	0.025 c m/s	[0.0008 ft/s]
Repeatability:	0.15% of read. ± 0.01 m/s	[0.15% of read. ± 0.03 ft/s]
Accuracy	(for fully developed, rotationally symmetrical flow profile)	
- Volume flow:	± 1% to 3% of read. ± 0.01 m/s depending on application ± 0.5% of reading ± 0.01 m/s [with process calibration]	[± 1% to 3% of read. ± 0.03 ft/s] [± 0.5% of read. ± 0.03 ft/s]
- Path velocity:	± 0.5 % of read. ± 0.01 m/s	[± 0.5 % of read. ± 0.03 ft/s]
Accuracy at the defined test points for a leakage measurement	(flow profile not rotationally symmetrical)	
- Volume flow:	< 7% of read. ± 0.01 m/s for T = 10 °C to 60 °C	[< 7% of read. ± 0.03 ft/s] [for T = 50 °F to 140 °F]

### Transmitter

Enclosure		
- Weight:	approx. 3.9 kg*	[approx. 8.6 lb]
- Deg. of protection:	IP54 acc. to EN60529	[NEMA 3S]
- Material:	aluminium, epoxy coated	
- Dimensions (with handle):	[276 x 118 x 317] m	[[10.87 x 4.64 x 12.48] in]
Measuring channels:	1	
Power supply:	Rechargeable battery (6v /4 Ah) or external power supply (100-240) AC	
Operating time with battery:	>10 h	
Charge time for max. capacity:	15 h	
Display:	2 x 16 characters, dot matrix, backlit	
Operating temp.:	-10 °C to 60 °C	[14 °F to 140 °F]
Power consumption:	< 15 W	
Measuring cycle:	(100 to 1000) Hz (1 channel)	

### Measuring functions

Meas. quantity:	volume flow
Meas. units:	l/min or gal/min

### Data logger

Loggable values:	all measured values
Capacity:	meas. values: >100 000 meas. series: 99

### Communication

Interface:	RS232
Data:	actual meas. value, logged data, parameter records

### Software FluxData (optional)

Function:	downloading meas. data/ parameter records, graphical presentation, conversion to other formats
Operating systems:	Windows™ versions, newer than Windows 98**

### Leakage transducer

Rated (possible) diameter range:	(9 to 25.4) mm	[[3/8 to 1] in]
Dimensions, W x H x D: (without fastening strap)	[75 x 41 x 43] mm	[[2.95 x 1.61 x 1.69] in]
Material:	enclosure: stainless steel, contact surface: PEI	
Operating temp:	-30 °C to 130 °C	[-22 °F to 266 °F]
Deg. of protection:	IP65 acc. to EN60529	[NEMA 4X]

\* Avoirdupois pound: 1lb = 0.45359237 kg; \*\* Windows is a protected trademark of Microsoft Corporation.



### FLEXIM GmbH

Berlin, Germany  
 Phone: +49 30 93 66 76 - 60  
 Fax: +49 30 93 66 76 - 80  
 aviation@flexim.de  
 www.aviation.flexim.com



## Part Numbers

### Civil Models

P/N 610007AB	Ultrasonic LEAKAGE Meter GST 6108
P/N 61007010-01	Firmware for A320 family
P/N 61007030-01	Firmware for A330/A340 family
P/N 610080	Training course on site
P/N 610081	Traning course in Berlin
P/N 610090	Calibration and adjusting of a LEAKAGE transducer with a GST 6108

### Military Models

P/N 610007MB	Ultrasonic LEAKAGE Meter GST 6108 Military
P/N 61007020	Firmware for A400M
P/N 610082	Training course on site, one day, max. 4 persons (travelling costs and accommodation are billed separately)
P/N 610083	Training course in Berlin, one day, max. 4 persons
P/N 610091	Calibration and adjusting of a LEAKAGE transducer with a GST 6108M