

### The Ultrasonic Leakage Meter

The ultrasonic leakage meter GST 6108 measures the leak rate in hydraulic systems according to the ultrasonic transit time difference principle. Since the transducer is mounted on the pipe, it can be installed rapidly, without cutting into the pipe.

The leakage meter tests with its special electronics the incoming ultrasonic signals for their usefulness for the measurement and evaluates the plausibility of the measured values. The integrated microprocessors control the complete measuring cycle, eliminating disturbance signals by statistical signal processing techniques.

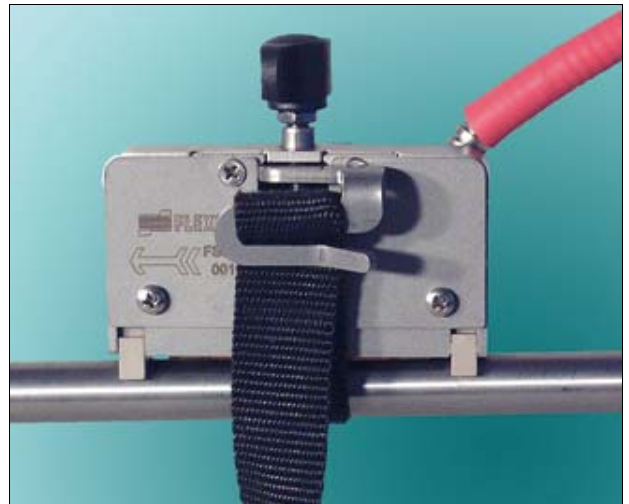
The operation of the leakage meter is especially easy thanks to the clearly structured user dialogue. A status display allows the user to assess application conditions while measuring flow. With the optional software Flux-Data, you can transfer your measuring data from the leakage meter to a PC, analyse and visualise the measuring results and manage the data files.

The leakage meter is used for:

- Model of aircraft: Airbus A320 family  
(A318, A319 CJ, A319-100, A320-100, A320-200, A321-100, A321-200)
- Maintenance Task: AMM / ATA chapter 29, C-check
- Approved by Airbus: Ground Support Equipment  
Certificate of Acceptance  
Certificate No.: D29017  
Certificate No.: D29031
- Use: Functional check to monitor internal leak rate of green, yellow and blue hydraulic system for sections Complete, Left Hand Wing, Right Hand Wing and Tail



GST 6108



leakage transducer

### Features

- Portable device of little weight
- User-friendly operation thanks to the clearly structured user dialogue
- Installation on different parts of the pipe of the hydraulic system
- Easy installation without cutting into the pipe, i.e. no additional leakage occurs by opening the hydraulic system
- Output and evaluation of the measured leak rate
- No GSM (Ground Service Manifold) is required, i.e. less weight aboard the aircraft
- No Hydraulic Ground Power Card is required

## 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 cm/s [0.0008 ft/s]
Repeatability:	0.15% of read. $\pm 0.01$ m/s [0.15% of read. $\pm 0.03$ ft/s]
Accuracy	(for fully developed, rotationally symmetrical flow profile)
- Volume flow:	$\pm 1\%$ to 3% of read. $\pm 0.01$ m/s [ $\pm 1\%$ to 3% of read. $\pm 0.03$ ft/s] depending on application $\pm 0.5\%$ of reading $\pm 0.01$ m/s [ $\pm 0.5\%$ of read. $\pm 0.03$ ft/s] with process calibration
- Path velocity:	$\pm 0.5\%$ of read. $\pm 0.01$ m/s [ $\pm 0.5\%$ of read. $\pm 0.03$ ft/s]
Accuracy at the defined test points for a leakage measurement	(flow profile not rotationally symmetrical)
- Volume flow:	< 7% of read. $\pm 0.01$ m/s [< 7% of read. $\pm 0.03$ ft/s] for T = 10°C to 60°C [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) mm [(10.87 x 4.64 x 12.48) in]
Measuring channels:	1
Power supply:	Rechargeable battery (6V/4Ah) or external power supply (100-240)V AC
Operating time with battery:	>10h
Charge time for max. capacity:	15h
Display:	2 x 16 characters, dot matrix, backlit
Operating temp.:	-10°C to 60°C [14°F to 140°F]
Power consumption:	< 15W
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):	(75 x 41 x 43) mm [(2.95 x 1.61 x 1.69) in] (without fastening strap)
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]
<p>* Avoirdupois pound: 1 lb = 0.45359237 kg</p> <p>** Windows is a protected trademark of Microsoft Corporation.</p>	