



LAT N° 093  
**Calibration Centre**  
 The products are NOT covered by accreditation

**COMPLETO DI**  
 Certificato di Taratura ACCREDIA

**COMPLETE WITH**  
 ACCREDIA Calibration Certificate

Linearità - Isteresi  
 $\leq \pm 0.05\%$   
 Linearity - Hysteresis

LabDMM is a digital pressure gauge recommended as first line sample employed in industrial fields for a direct test on the plants.

It can be used in laboratories for performing calibrations or metrological comparison on manometers, pressure transmitters and transducers or pressure switches.

To increase the practicality and make the instrument completely autonomous, the pressure gauge is fed by internal batteries which ensure 1 year autonomy.

In the programming menu, reachable through the keyboard it is possible to adjust different functions such as: digital filter that allows to maintain the measurement steady even in presence of unsteady pressures, the display resolution which allows to increase the measurement at fixed steps (2,5,10) the measurement unit which can be changed into mbar, bar, kPa, MPa and psi.

The sensor, entirely made in stainless steel is monolithic to ensure a long term high stability even in presence of highly dynamic pressures.

During the production cycle the digital pressure gauge is calibrated and ACCREDIA certified to guarantee the exact measurement uncertainty which is always ensured better than 0,05%.

### Main features:

- NORMALIZED PRESSURE FROM 100 mbar TO 3000 bar
- ~ 1 YEAR AUTONOMY WITHOUT RECHARGING
- PROGRAMMABLE RESOLUTION, DIGITAL FILTER and BAUD RATE
- ZERO and PEAK (Active in PRESSURE and VACUUM) functions
- ANALOG PRESSURE INDICATION ALWAYS ACTIVE (Bar Graph)
- EXTERNAL POWER SUPPLY (optional)
- RS232 OUTPUT (optional)
- BUILT-IN CASE (optional)
- **VACUUM** CALIBRATION (optional)

**Main characteristics:**

<b>ACCURACY</b> (linearity and hysteresis)	$\leq \pm 0,05$ % F.S. $\leq \pm 0,10$ % F.S. 2500 and 3000 bar version
<b>ABSOLUTE PRESSURE (A)</b> Zero at pressure to absolute vacuum	1 – 2,5 – 5 – 10 bar
<b>RELATIVE PRESSURE (R)</b> Zero at atmospheric pressure	100 – 250 - 500 mbar 1 – 2,5 – 5 – 10 – 20 – 50 – 100 bar 250 - 350 – 500 – 700 bar 1000 – 1500 - 2000 – 2500 – 3000 bar
<b>RELATIVE VACUUM (V)</b> Zero at atmospheric pressure	-1 ... 1 bar    -1 ... 2,5 bar    -1 ... 5 bar -1 ... 10 bar    -1 ... 20bar
<b>PRESSURE MEASUREMENT UNITS</b>	bar – mbar – psi – Mpa – kPa
<b>SERVICE TEMPERATURE</b>	0 ... +50 °C
<b>STORAGE TEMPERATURE</b>	-10 ... +60 °C
<b>RELATIVE HUMIDITY</b>	< 90 % not condensed
<b>TEMPERATURE EFFECT (1°C)</b> a) on zero b) on sensitivity	$\leq \pm 0,002$ % $\leq \pm 0,002$ %
<b>INTERNAL RESOLUTION</b> <b>READINGS PER SECOND</b> (0 filter) <b>DIGITAL FILTER</b> PROGRAMMABLE <b>RESOLUTION</b> PROGRAMMABLE <b>ZERO</b> FUNCTION <b>PEAK</b> FUNCTION <b>USB PROGRAMMABLE BAUD RATE</b> <b>RS232C CONNECTION</b> (option)	16 bit 10 (100ms) 0 ... 99 1, 2, 5, 10 Active up to 50% F.S. Active in <b>PRESSURE</b> and <b>VACUUM</b> 19200, 9600, 4800 DB9 Female connector
<b>DISPLAY</b>	16 mm (custom LCD)
<b>POWER SUPPLY</b> <b>AUTONOMY</b> <b>BATTERY</b>	<b>NOT RECHARGEABLE</b> inside BATTERY ~ 1 YEAR n° 4 to 1,5V size AA
<b>MECHANICAL LIMIT VALUES:</b> a) service pressure b) max. permissible pressure c) breaking pressure d) highly dynamic pressure	100% F.S. 150% F.S. >300% F.S. 75% F.S.
<b>PROCESS COUPLING</b> <b>RECOMMENDED GASKET</b>	1/2" G Male USIT A 63-18
<b>TIGHTENING WRENCH</b> <b>TIGHTENING TORQUE</b>	27 mm 28 Nm
<b>PROTECTION CLASS</b> (EN 60529) <b>SENSOR EXECUTION MATERIAL</b> <b>CASE EXECUTION MATERIAL</b>	IP65 INOX 17-4 PH ALUMINUM

**Included accessories:**

ACCREDIA certificate.  
 Shock-resistant silicon COVER.  
 Carrying case.  
 Operating Manual.  
 Nr. 2 mordant cones for high-pressure from  
 1000 bar to 3000 bar pressure gauges.

**Optionals:**

ALUMINIUM BUILT-IN CASE.  
 Hole gauge 83 x 83 mm.  
 Code: **TCINC**



**WARNING:** Protection class IP65 front panel.



EXTERNAL POWER from 12Vdc to 24 Vdc  
 without batteries.  
 Code: **OPZALIMEST**  
 EXTERNAL POWER SUPPLY from 220V to 12Vdc.  
 Code: **TALDMM**



**WARNING:** Protection class IP40.



SERIAL OUTPUT RS232C.  
 Cable RS232. code: **TCAVOSERIALE**  
 USB adapter. code: **CAVO-RS232-USB**



**WARNING:** Protection class IP40.



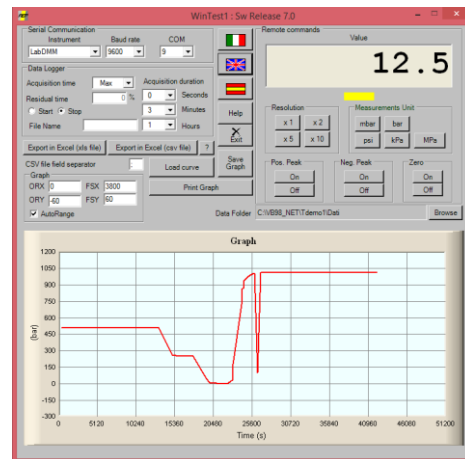
**Accessories:** (purchased separately)

**WinTEST1**

**Quick analyzer**

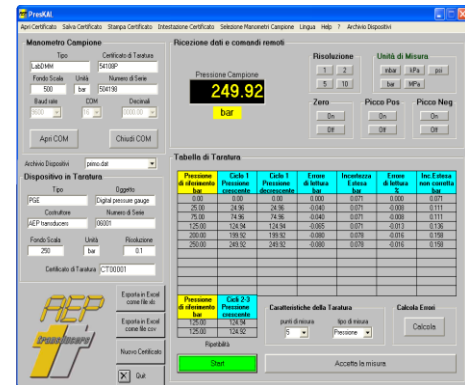
**Quick analyzer Light**

Software that works directly with the pressure gauge and supports the operator in the various test functions like, analysis, over time monitoring, data storage, management, transferring data to Microsoft Excel and so on.



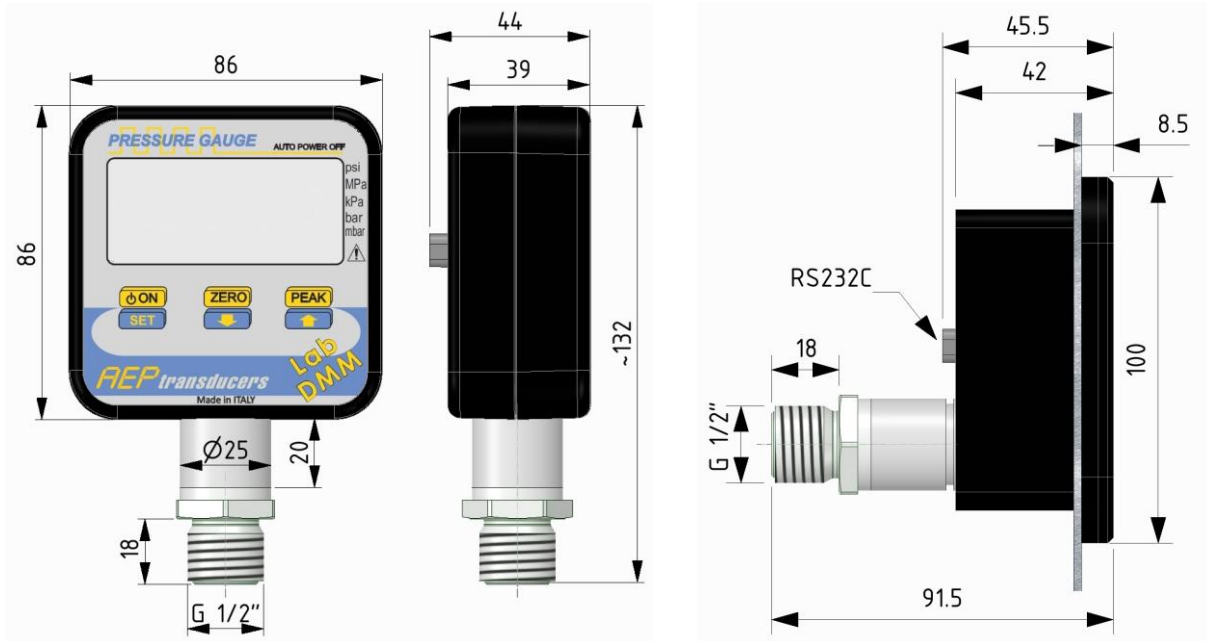
**PresKAL**

Software dedicated to the calibration and metrology confirmation of pressure gauges, pressure transducers, pressure transmitters and pressure switches.



Manual pressure generators used to compare the measurements between the sample pressure gauge and the instrument calibration. Ideal for performing calibration and metrological confirmation of pressure gauges, pressure transducers, pressure transmitters and pressure switches.

### Dimensions (mm):



### STANDARD indications

	Full Scale	Display	Resolution	Display	Resolution	Display	Resolution	Display	Resolution
TYPE <sup>(1)</sup>	bar	bar	bar	mbar	mbar	psi	psi	MPa	MPa
RV	0,1	0,1000	0,0001	100,00	0,01	1,450	0,002	0,0100	0,0001
RV	0,25	0,2500	0,0001	250,00	0,05	3,620	0,002	0,0250	0,0001
RV	0,5	0,5000	0,0001	500,00	0,05	7,200	0,002	0,0500	0,0001
ARV	1,0	1,0000	0,0001	1000,0	0,1	14,500	0,002	0,1000	0,0001
ARV	2,5	2,5000	0,0005	2500,0	0,5	36,200	0,005	0,2500	0,0001
ARV	5	5,0000	0,0005	5000,0	0,5	72,500	0,010	0,5000	0,0001
ARV	10	10,000	0,001	10000	1	145,00	0,02	1,0000	0,0001
RV	20	20,000	0,002	20000	2	290,00	0,02	2,0000	0,0002
R	50	50,000	0,005	50000	5	725,00	0,10	5,0000	0,0005
R	100	100,00	0,01	99900	10	1450,0	0,2	10,000	0,001
R	250	250,00	0,02	99900	20	3620,0	0,5	25,000	0,002
R	350	350,00	0,05	99900	50	5000,0	0,5	35,000	0,005
R	500	500,00	0,05	99900	50	7250,0	0,2	50,000	0,005
R	700	700,00	0,05	99900	50	10000	0,2	70,000	0,005
R	1000	1000,0	0,1	99000	100	14500	2	100,00	0,01
R	1500	1500,0	0,2	99000	200	21700	5	150,00	0,02
R	2000	2000,0	0,2	99000	200	29000	5	200,00	0,02
R	2500	2500,0	0,2	99000	200	36250	5	250,00	0,02
R	3000	3000,0	0,2	99000	200	43500	2	300,00	0,02

<sup>(1)</sup> A = Absolute R = Relative V = Vacuum

### Purchase codes:

TLDMM	Pressure	CX41	Full Scale				OPTION
	R = Relative		0B1	5B	250B	1KB5	S = RS232C
	A = Absolute <sup>(2)</sup>		0B2	10B	350B	2KB	
			0B5	20B	500B	2KB5 <sup>(3)</sup>	
			1B	50B	700B	3KB <sup>(3)</sup>	
			2B5	100B	1KB		

Exsample: **TLDMM R CX41 50B S**

<b>TDMMV</b>	Relative VACUUM version
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<sup>(2)</sup> ACCREDIA certificate in RELATIVE mode.

ACCREDIA certification in ABSOLUTE mode can NOT be performed by LAT n° 93 Laboratory, on request it can be ordered to other Accredited Laboratories.

<sup>(3)</sup> ACCREDIA certification can NOT be performed by LAT n° 93 Laboratory, on request it can be ordered to other Accredited Laboratories.

**AEP** *transducers*



Dasa-Rägister  
EN ISO 9001:2008  
IQ-1100-01



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covered by accreditation



**Production Quality  
Assurance Certified n°**  
TÜV CY 17 ATEX 0205891 Q

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In order to improve the technical performances of the product, the company reserves the right to make any change without notice.