

Air Leak Tester with more versatility and capability



AIR LEAK TESTER LS-R902



Loaded with advanced features evolved throughout our extensive knowledge and experiences



FULL-COLOR TOUCH-SCREEN DISPLAY

Easy-to-navigate and intuitive interface with simple menu configurations



USER SELECTABLE MULTI-LANGUAGE CAPABILITY

Selectable from English, Japanese, Chinese, Korean, German, Spanish and Portuguese.



WAVEFORM MEASUREMENT DISPLAY

Graphical display of the test pressure and measured differential pressure



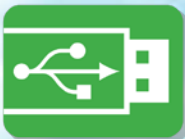
EXTERNAL PNEUMATIC CIRCUIT

Detects blockage of select valves and exhaust valves connected to the LS-R902.
* The effect varies depending on the conditions.



AUTOMATIC SETUP FEATURE FOR EASY PROGRAMMING

Supports initial test parameter programming by determining stage timers.



USB PORT FOR EASY DATA STORAGE

Test results can be automatically copied to a USB Memory after every test, test parameters and System data backup can be stored as well

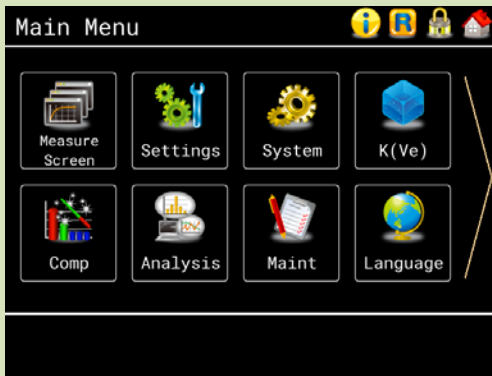


MASTERING FEATURE PROVIDES HIGHLY ACCURATE TEST RESULTS

Provides faster and more accurate test results by compensating for environmental drifts
Using the Mastering feature, variety of parts can share a Master Chamber as a reference.

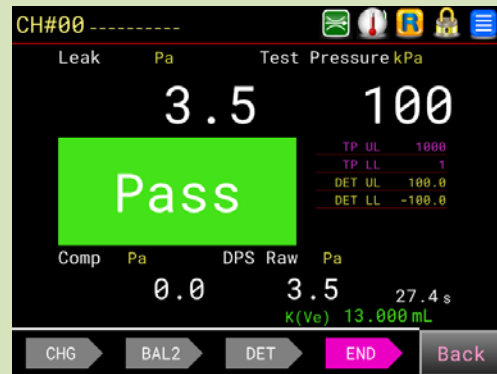
COSMO INSTRUMENTS CO., LTD.

Easy-to-navigate configuration with icons



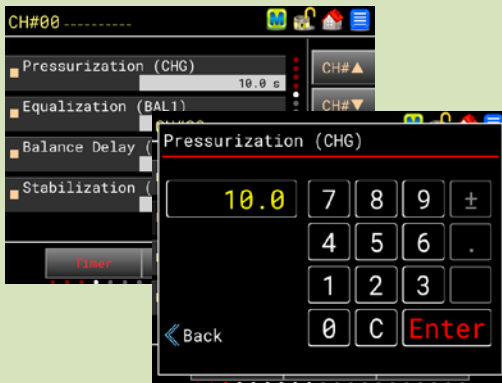
Intuitive operation makes test parameter programming easy.

Selectable Measurement Screens



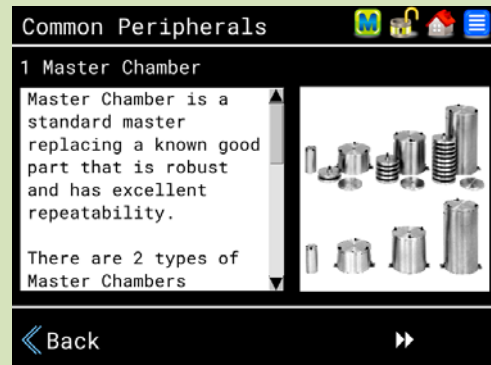
Measurement screen is selectable from 6 different screens. For four measurement screens, "Standard", "Simple", "Waveform" and "4-Channel", the items to be displayed can be customized.

Settings Menus



Large numeric keyboard pops up for easy test parameter setting.

Helpful User-Support Features



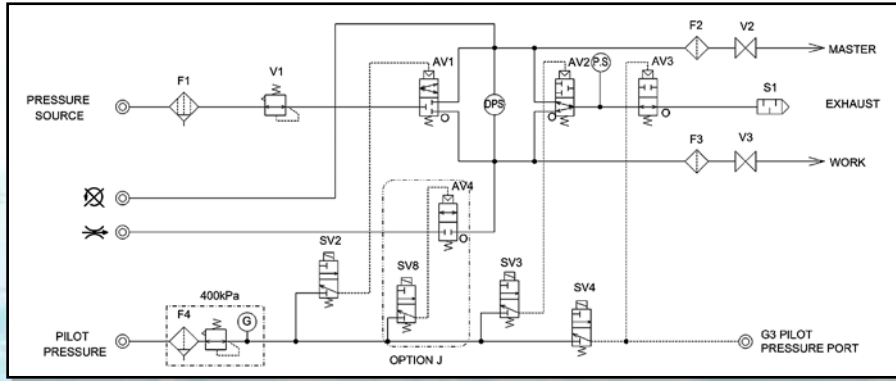
Wide variety of user-support features such as Information, Troubleshooting, Calculation tools and List of common peripherals.

Other Features

Display	Full-color 5.7-inch LCD touch-screen Selectable from 6 different measurement screens
Intelligent Pneumatic Circuit	Comes with self-check features: Sensor sensitivity, Air-valve performance
K(Ve) Auto Setup	K(Ve) can be set up using a calibrator, Leak Master or Auto-Leak Calibrator (ALC) to convert measured pressure to a flow rate.
Leak Limits	Two sets of leak limits: Medium/Small leaks on Work-side (UL/UL2) and Master-side (LL/LL2)
Electro-pneumatic Regulator	For the models come with Electro-pneumatic regulator, different test pressure can be set independently for each channel.
Noise Reduction (NR) <input type="checkbox"/>	Eliminates noise by repeating the DET stage when the reading falls between DET UL and DET UL2.
Operation manual download	Operation manual in each language can be downloaded through the USB port.
Drift Compensation	Mastering, Auto-Drift Compensation, Compensation Limits, Number of Samples
Self Check	Air-operated valve performance, DPS/PS Offset, CPU performance and others

Sensor Protection	Air-Blow (Intelligent Pneumatic Circuit):	The pneumatic circuit is cleaned at the end of every leak test.
	External Exhaust Valve Ready	Valve is sold separately.
Exhaust Interference Prevention	Exhaust timing is controlled for the cases where multiple cavities are tested simultaneously.	
Charge Hold	Tester pressurizes the tested part continuously. Used to locate leaks.	
Control I/O Port	Both for NPN-PNP For Phoenix Contact connector, wire connection can be done with a flat-bladed screwdriver.	
Serial Communication	RS-232C: 2 ports (On the front and rear panels) USB: 1 port	
Mastering Setting	Day of Week, Interval, Iteration, Max Idle Time, Consecutive Triggers, Mastering Comp Value, Mastering Limits, Mastering Iterations	
Display/Messages	Error Message, Troubleshooting, I/O Monitor, Channel Title, Counter etc.	
Quick Mounting Brackets	Tester can be mounted/removed with only two screws. Good for mounting the tester in a limited space.	

■ Pneumatic Circuit (Intelligent 2 Pneumatic Circuit)



■ General Specifications

DPS	Resolution	0.1 Pa
	Accuracy Guaranteed Range	±1000 Pa
	Accuracy	±2.5% of rdg ±1 Pa, 50 Pa or lower: ±2 Pa
	Sensor Proof Pressure	5 MPa
Display Unit	Test Pressure	kPa, MPa (kg/cm ² , psi, bar, etc.)
	Leak	Pa, kPa, mL/s, mL/min, L/min, Pa·m ³ /s, E-3 Pa·m ³ /s, Pa/s, Pa/min, *Pa/s, *Pa/min(mmH ₂ O, mmHg, inH ₂ O, etc.)
	Equivalent Internal Volume	mL, L (in ³ , ft ³)
Leak Display		3 to 5 digits (Floating point) Sampling Rate: 10 times/s
Leak Limit		Up to ±999.9 Pa
Number of Channels		32 channels (#00 to #31)
Timers		Up to 999.9 s (Resolution: 0.1 s)
Power Source		100 to 240 VAC ±10 % at 50/60 Hz, 80 VA max
Ambient Temperature		Operation Temp.: 5 to 45 °C Storage Temp.: -20 to 60 °C
Humidity		80 %RH or less / no dew condensation
Weight		Approx. 10 kg (Standard model)

Test Pressure Source	Clean air. The source pressure must be sufficiently higher than the test pressure and the pilot pressure.	
Pilot Pressure	Set by the installed filter regulator for pilot pressure: 400 to 700 kPa	
Port Size	Rc(PT) 1/4 (Test pressure, Work and Master ports) Rc(PT) 1/4 (Pilot pressure)	
RS-232C 2 ports (D-sub 9 pins)	I/F fixed length	Test parameters as well as test results are transmitted.
	T/F fixed length	Only test results are transmitted.
	Others	Other formats
USB Port	Test Data	Judgment, Leak, Compensation value, Test pressure, Channel#, Timers, etc.
	Copy CSV to USB	csv file
Accessories	Oil mist separator and regulator (Except H20 and H49), Filter regulator for Pilot pressure, Power cord, Quick mounting brackets, Control I/O connector, Inspection record / Traceability related documents, Operation manual	

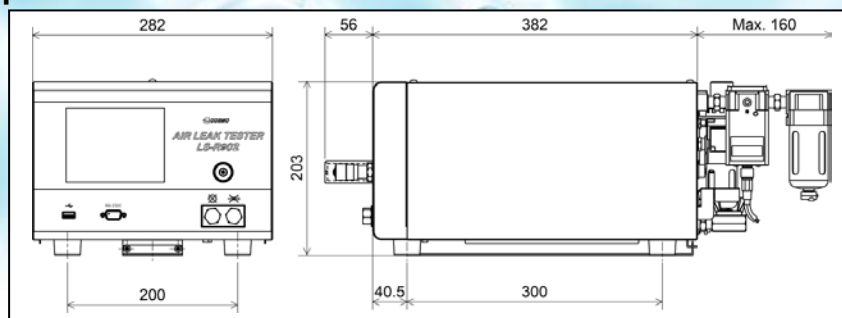
Regulator and power cords are not included in the scope of the CE declaration.
The units in () are not available for SI unit restriction models.

■ Model LS-R902 – (1) Pneumatic Circuit (2) Pressure Range (3) Options – (4) Power Cord

(1)	Pneumatic Circuit	A1: Intelligent 1 Pneumatic Circuit, A2: Intelligent 2 Pneumatic Circuit AS1: Small Volume A1 Circuit, AS01: Micro Volume Circuit, C: Secondary Pressure Circuit
(2)	Pressure Range	Precision Regulator L02: 5 to 20 kPa, L: 10 to 100 kPa, M: 50 to 800 kPa, V: -5 to -100 kPa, H20: 2.0 MPa or lower *1, H49: 4.9 MPa or lower *1
		E/P Regulator LR: 10 to 95 kPa, MR: 50 to 800 kPa, VR: -5 to -75 kPa
(3)	Options	J: Comes with CAL Driving Valve for Leak Master, K05: Comes with ALC-05 0.5 mL, K1: Comes with ALC-1 1 mL, K4: Comes with ALC-4 4 mL, K10: Comes with ALC-10 10 mL, B: Bypass Circuit Ready without regulator, B1: Bypass Circuit Ready with regulator, D4: Differential Pressure Sensor Range: ±10 kPa, PV1: Pressure/Vacuum Pressure Sensor, UX3: UL conformed, N*: Industrial Field Network (Industrial EtherNet / Fieldbus) RX09: TCU ports (IN, OUT) provided on the rear panel without TCU, RX10: TCU ports (IN, OUT) + TCU (Temperature Compensation Unit), sensors and cables sold as a set, RX11: 100 Channels
(4)	Power Cord	VA: 125 VAC/7A Length: 3 m, VE: 250 VAC/10A Length: 2 m (CE conformed), VK: 250 VAC Length: 2 m (Only for Chinese customers)

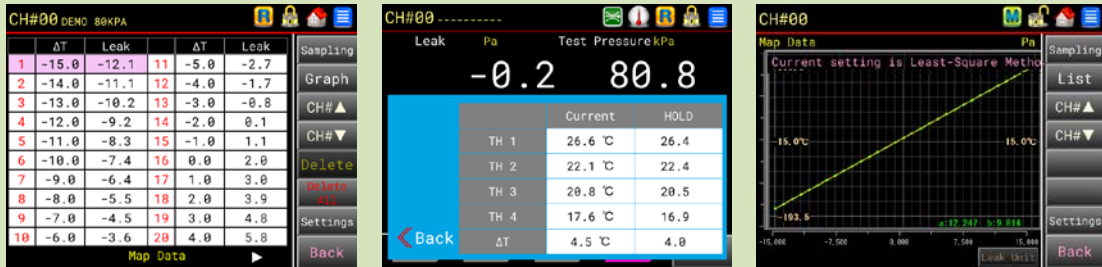
* 1 H20 and H49 models come with no regulator.

■ External Appearance



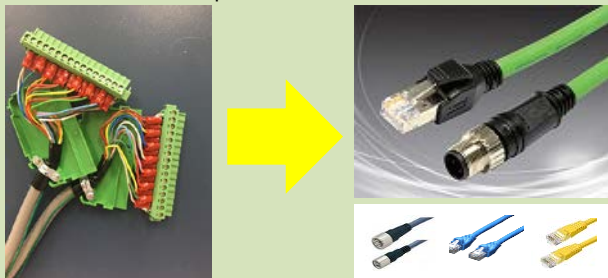
Temperature Compensation

Significantly reduces the setup time by more than 50%. (Compared with our conventional testers)
 Samples the temperatures of the environment, tested parts etc. to derive the optimum Compensation value.

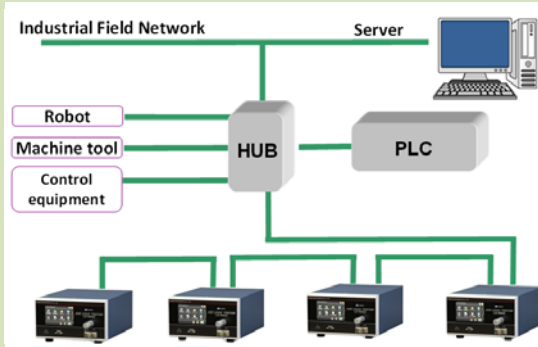


Industrial Field Network (Option)

Supports smooth communication with PLC with fewer cables.
 Test results can be output to the network.



I/O wiring not needed → Dedicated connectors used



Peripherals for Air Leak

Master Chamber



Leak Master / Calibrator



Pneumatic Part

Bypass Circuit Unit



NL Select Valve



G3 External Exhaust Valve



I/O Conversion Cable



PC Link Software 4



* The contents of this catalog are as of August 2018. The specifications are subject to change without prior notice.

Cosmo Instruments Co., Ltd.

<http://www.cosmo-k.co.jp/>

2974-23 Ishikawa, Hachioji, Tokyo 192-0032 Japan

Phone: +81-(0)42-642-1357 Fax: +81-(0)42-646-2439

China: Cosmo (Shanghai) Trading Co., Ltd.	+86-(0)21-6575-6880
Shanghai, Tianjin, Guangzhou, Chongqing, Changchun, and Wuhan	
Korea: Cosmo Korea Co., Ltd.	+82-(0)32-623-6961
Taiwan: Taiwan Cosmo Instruments Co., Ltd.	+886-(0)2-2707-3131
Malaysia: COSMOWAVE SDN.BHD.	+60-(0)3-51626677
Thailand: Cosmowave Technology Co., Ltd.	+66-(0)2-7361667
Indonesia: Pt. Cosmowave	+62-(0)21-42900043
Vietnam: Cosmowave Technology Co., Ltd. Vietnam Representative Office	+84-(0)47876085

India: Cosmo Instruments India Pvt. Ltd. Head Office	+91-(0)124-421-0946
Cosmo Instruments India Pvt. Ltd. South Zone Regional Office	+91-(0)9663384423
Cosmo Instruments India Pvt. Ltd. Pune - Chakan Office	+91-(0)20-6933-2345
Germany: Cosmo EU Solutions Technology GmbH	+49-(0)212-383671-71
USA: Cosmo Solutions Technology, Inc.	+1-248-488-2580
Mexico: Cosmo De Mexico	+52 472 748 62 94
Brazil: Tex Equipamentos Eletronicos Ind. Com. Ltda.	+55-(0)11-4591-2825
Australia: Industrial Research Technology Pty. Ltd.	+61-(0)412-176-674

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