

Air Leak Tester with more versatility and capability

AIR LEAK TESTER

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LS-R902



- High-performance, globally compatible differential pressure air leak tester

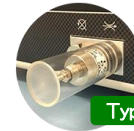
* Option

EtherNet/IP

PROFINET



Type K



Type J



CERTIFIED
SAFETY US-CA
E477036



Advanced features evolved through our extensive knowledge and experiences



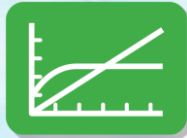
FULL-COLOR TOUCH-SCREEN DISPLAY

All operations can be performed on a touch screen.
Color LCD display that is easy to read and understand.



MULTI-LANGUAGE CAPABILITY & QUICK ACCESS

Selectable from English, Japanese, Chinese, Korean, German, Spanish and Portuguese.
Jumps to the screen selected from Advanced Settings, System Settings, Comp, System Settings, Settings Backup/Restore and Error Log



WAVEFORM MEASUREMENT DISPLAY

Graphical display of the test pressure and measured differential pressure.
Find the optimum pressurization and detection times.



Check

CAL DRIVING VALVE FOR LEAK MASTER (TYPE J) ALC (AUTO LEAK CALIBRATER) (TYPE K)

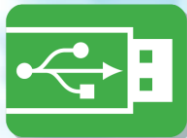
Convenient calibration tool selectable as an option



Auto

AUTOMATIC SETUP FEATURE FOR EASY PROGRAMMING

Leak testing requires a number of settings.
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 PROVIDES HIGHLY ACCURATE TEST RESULTS

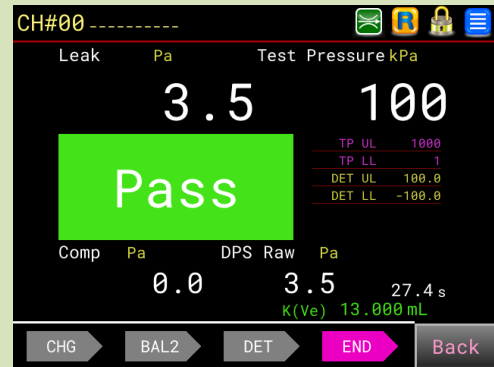
Provides faster and more accurate test results by compensating for environmental drifts.
Using the Mastering feature, variety of parts can share a Master Chamber as a reference.

Easy-to-navigate 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.

Improved Operability by Quick Access



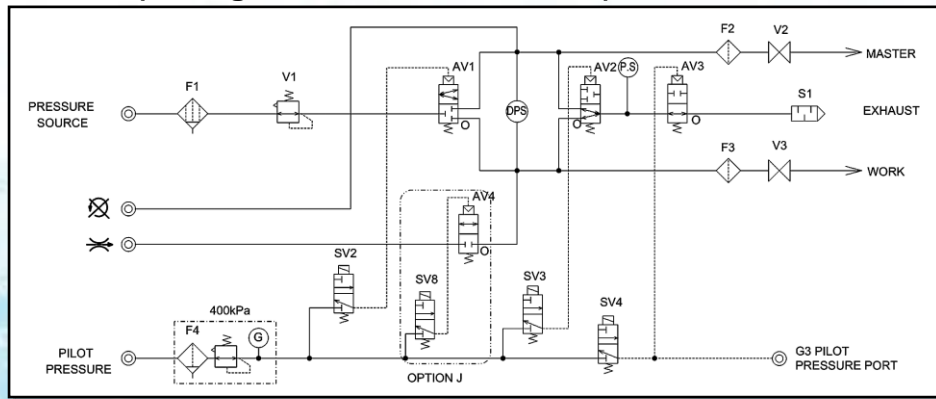
Convenient for quicker setup operation.

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 setup 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: Large/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)	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	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 will be 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 *1	Resolution	0.1 Pa	Test Pressure Source	Clean air The source pressure must be sufficiently higher than the test pressure and the pilot pressure.	
	Accuracy Guaranteed Range	±1000 Pa		Pilot Pressure	Set by the installed filter regulator for pilot pressure: 400 to 700 kPa
	Accuracy	±2.5% of rdg ±1 Pa, 50 Pa or less: ±2 Pa	Port Size		Rc(PT) 1/4 (Test pressure, Work and Master ports) Rc(PT) 1/4 (Pilot pressure)
Display Unit	Sensor Proof Pressure	5 MPa		RS-232C 2 ports (D-sub 9 pins)	I/F fixed length
	Test Pressure	kPa, MPa (Non-SI units for use outside Japan: kg/cm ² , PSI, bar, others)	ID/F fixed length		
	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 (Non-SI units for use outside Japan: immH ₂ O, mmHg, inH ₂ O, others)	T/F fixed length		Only test results are transmitted.
Equivalent Internal Volume	mL, L (Non-SI units for use outside Japan: in ³ , ft ³)	Others	Other formats		
Leak Display	3 to 5 digits (Floating point), Sampling Rate: 10 times/s	USB Port	Save Data	Judgment, Leak, Compensation value, Test pressure, Channel#, Timers, etc.	
Leak Limit	Up to ±999.9 Pa		Copy CSV to USB	csv file	
Number of Channels	32 channels (#00 to #31)	Accessories	Oil mist separator and regulator (Except H20 and H49), Filter regulator for Pilot pressure, Power cable, Quick mounting brackets, Control I/O connector, Inspection Record, Operation Manual		
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)				

*1 Except D4 (Differential Pressure Sensor Range: 10 kPa)

NOTE: Precision Regulator, E/P Regulator, and Power Cable are not CE compliant.

■ Model LS-R902 (A B C.D.E) A, B, D and E in the model notation are mandatory.

A	Pneumatic Circuit	A1: Intelligent 1 Pneumatic Circuit, A2: Intelligent 2 Pneumatic Circuit, AS01: Micro Volume Circuit, AS1: Small Volume A1 Circuit, C: Secondary Pressure Circuit			
B	Test Pressure Range	Precision Regulator	M: 50 to 800 kPa, L: 10 to 100 kPa, L02: 5 to 20 kPa, V: -5 to -100 kPa, H20: 2.0 MPa or less*1, H49: 4.9 MPa or less*1		
		E/P Regulator	MR: 50 to 800 kPa, LR: 10 to 95 kPa, VR: -5 to -75 kPa		
C	Options	G: External Exhaust Valve Ready *2, J: With CAL Driving Valve For Leak Master, K05: Come with ALC-05, K1: Come with ALC-1, K4: Come with ALC-4, K10: Come with ALC-10, B: Bypass Circuit Ready without Precision Regulator and Filter, B1: Bypass Circuit Ready with Precision Regulator, PV1: Pressure/Vacuum Pressure Sensor, F1: Blow Orifice Φ1.2 *3, R1: E/P Regulator Ready (With EP Connector) *4, RX02: Nylon Filter Housing (Filter for the pilot pressure), RX03: Nylon Filter Housing (Filter for the pilot pressure and test pressure), RX06: Pilot Pressure Port Comes with Filter Only, RX09: TCU ports (IN, OUT), RX10: TCU ports (IN, OUT) + TCU (Temperature Compensation Unit), sensors and cables sold as a set, RX11: 100 Channels, N3: CC Link, N5A: Ethernet/IP, N6A: PROFINET, D4: DPS Range: 10 kPa, PX1: NPT Fittings			
		D	Units and Others	UX1: SI units only, UX2: All units (For overseas only), UX3: UL Certification	
E	Power Cable	VA: 125 VAC 3 m, VE: 250 VAC 2 m, VK: 250 VAC 2 m (Only for Chinese customers)			

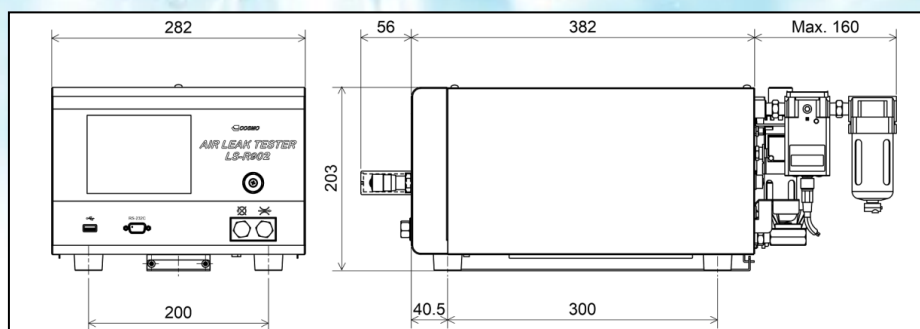
*1 H20 and H49 models come with no regulator.

*2 Standard specification. Not selectable for Secondary Pressure Circuit (C) and for Vacuum (V, VR).

*3 Standard specification for Micro Volume Circuit (AS01).

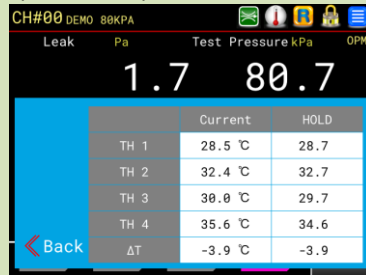
*4 Selectable for precision regulators.

■ External Appearance

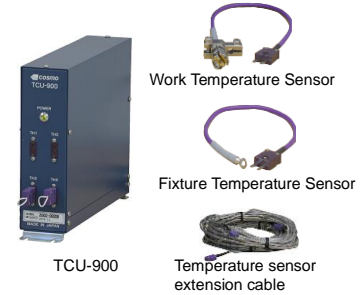


Temperature Compensation*1 (Option)

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



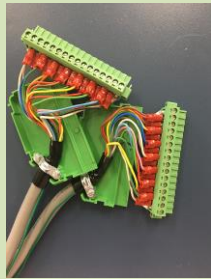
Main accessories for Option RX10



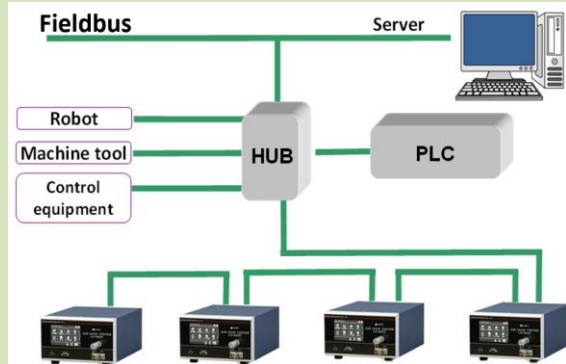
Fieldbus*1 (Option)



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



I/O wiring not needed → Dedicated connector



*1 The options "Temperature Compensation" and "Fieldbus" are not CE/UL compliant.

Peripherals for Air Leak Tester

Custom-made Coupler



Master Chamber



Leak Master / Calibrator

LM-1C



QLC



LC



Pneumatic Parts

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 October 2023. The specifications are subject to change without prior notice.

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