

Portable Calibration Unit



Test and Calibration Gas Carrying Pouch

for LAMTEC Sensors and Measuring Systems

Technical Data Portable Calibration Unit

Carrying Pouch for 3 Test and Calibration Gas Cylinders



Fig. 1 Pouch

Dimensions carrying pouch for 3 test and calibration gas cylinders

Dimensions (HxWxD)	400x380x125 mm / 15.75x14.96x4.92" in
Weigth	0,7 kg / 1.55 lb
Material	Polyester

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Test and Calibration Gas (single use)



Fig. 2 Test and calibration gas cylinders (single use)

Dimensions Test and Calibration Gas Cylinders (single use) with Test Gas A, B, C, D, E

Ø	90 mm / 3.543 " in
High	370 mm / 14.57" in
Volume	1.6 l
Capacity	112 l at 70 bar / 1000 psi
Tare weight	1.2 kg / 2.645 lb
Pressure	70 bar / 1000 psi
Material	aluminium ISO11118
Valve protection	plastic cap
Valve outlet	5/82" 18 UNF C10
Gas composition	see table
Typical durability	3 years
Typical composition tolerances	± 2 %

Test gases for test and calibration gas cylinders (single use)

Test gas	Composition			
	O ₂ [Vol.%]	CO _e [ppm]*	NO (ppm)**	N ₂ [Vol.%]
A	21	0	0	Rest
B	3	0	0	Rest
C	3	300	0	Rest
D	0	0	30	Rest
E	0	0	100	Rest

* CO Equivalent CO_e is the sum of all components in the exhaust gas. In test gases, it is represented by CO and H₂ in pro portion of 2:1, e.g. 300 ppm CO_e = 300ppm CO_e = 200 ppm CO +100 ppm H₂.

** A calibration with nitrogen corresponds to a calibration on NO_x for NO/NO₂ > 9, thus NO_x = NO+NO₂.

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Flow Regulator with Test Gas Hose



Fig. 3 Flow regulator with hose connection

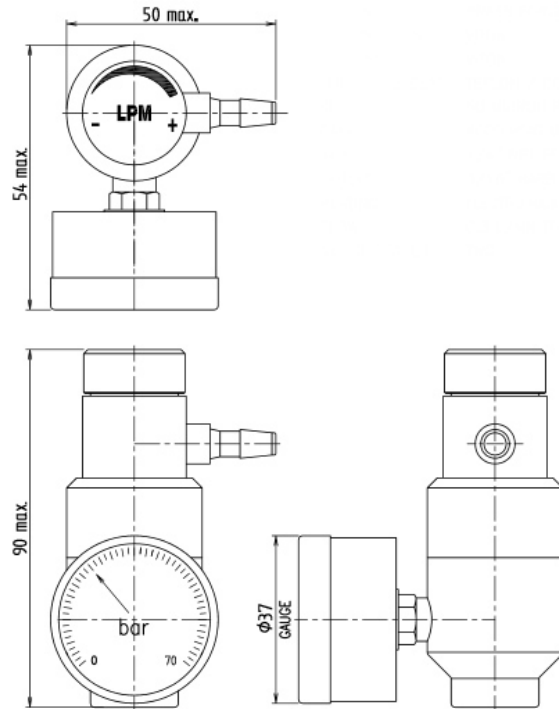


Fig. 4 Dimensional drawing flow regulator

Dimensions

Dimensions (HxWxD)	90x50x54 mm / 3.543x1.97x2.126" in
Weight	0.315 kg / 0.695 lb
Material (Body / Gasket / Valve seat)	Chrome plated brass / Viton/ Teflon 5

Input Data

Test gas inlet	5/8" 18 UNF C10
Test gas outlet	3/16" hose nipples
:Flow (variable with 9 steps)	0,5 – 5,0 l/min
Typical accuracy (with cylinder pressures between 3,5-70 bar / 50-1000 psi)	± 12 % of measured value
Pressure range when instrument air adapter is connected	permissible: 0 ... 7 bar / 0 ...101 psi recommended: 3 ... 4 bar / 43 ...58 psi

Dimensions Test Gas Hose

Dimension (Dxd)	6x3 mm / 0.237x0.118" in
Length	1 m / 39.37" in
Weight	0,03 kg / 0.062 lb
Material	Silicone

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Instrument Air Adapter for Flow Regulator



Fig. 5 Instrument air adapter for flow regulator

Dimensions Instrument Air Adapter	
Dimensions (HxWxD)	40x22x19 mm / 1.575x0.866x0.748" in
Weight	0.042 kg / 0.093 lb
Material	Stainless steel/brass nickel-plated
Pressure range when instrument air adapter is connected	permissible: 0 ... 7 bar / 0 ...101 psi recommended: 3 ... 4 bar / 43 ...58 psi
Dimensions Hose	
Dimension (Dxd)	6x4 mm / 0.237x0.158" in
Length	1 m / 39.37" in
Weight	0,02 kg / 0.044 lb
Material	PUN

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Order Information

Description	Order no.
Portable calibration unit for LS2 probe all types, as set including: – 1 piece bag for portable calibration unit (max. 3 disposable aluminium cylinder) – 1 piece flow controller with adjustable flow rate for disposable test gas aluminium cylinder – 1 piece instrument air adapter for flow controller – 1 piece test gas hose 6/3 mm/0.237x0.118 in. material silicon, length 1 m/39.37 in. – 1 piece Compressed air hose (6x4 mm/0.237x0.158 in., material PUN, length 1 m/39.37 in. – 1 piece test gas 3 % O ₂ ; balance N ₂ in aluminium disposable cylinder 1.6 l/70 bar	699R0060
Portable calibration unit with synthetic air for LS2 probe all types, as set including: – 1 piece bag for portable calibration unit (max. 3 disposable aluminium cylinder) – 1 piece flow controller with adjustable flow rate for disposable test gas aluminium cylinder – 1 piece instrument air adapter for flow controller – 1 piece test gas hose 6/3 mm/0.237x0.118 in., material silicone, length 1 m/39.37 in. – 1 piece compressed air hose 6x4 mm/0.237x0.158 in., material PUN, length 1 m/39.37 in. – 1 piece synthetic air for offset calibration in aluminium disposable cylinder 1.6 l / 70 bar – 1 piece test gas 3 % O ₂ ; balance N ₂ in aluminium disposable cylinder 1.6 l/70 bar	699R0061
Portable calibration unit for KS1/KS1D probe all types, as set including: – 1 piece bag for portable calibration unit (max. 3 disposable aluminium cylinder) – 1 piece flow controller with adjustable flow rate for disposable test gas aluminium cylinder – 1 piece instrument air adapter for flow controller – 1 piece test gas hose 6/3 mm/0.237x0.118 in. material silicone, length 1 m/39.37 in. – 1 piece compressed air hose 6x4 mm/0.237x0.158 in., material PUN, length 1 m/39.37 in. – 1 piece test gas 3 % O ₂ ; balance N ₂ in aluminium disposable cylinder 1.6 l/70 bar – 1 piece test gas 3 % O ₂ ; 200 ppm CO; 100 ppm H ₂ ; balance N ₂ in aluminium disposable cylinder 1.6 l/70 bar	699R0062
Portable calibration unit with synthetic air for KS1/KS1D probe all types, as set including: – 1 piece bag for portable calibration unit (max. 3 disposable aluminium cylinder) – 1 piece flow controller with adjustable flow rate for disposable test gas aluminium cylinder – 1 piece instrument air adapter for flow controller – 1 piece test gas hose 6/3 mm/0.237x0.118 in. material silicone, length 1 m/39.37 in. – 1 piece compressed air hose 6x4 mm/0.237x0.158 in., material PUN, length 1 m/39.37 in. – 1 piece synthetic air for offset calibration in aluminium disposable cylinder 1,6 l/70 bar – 1 piece test gas 3 % O ₂ ; balance N ₂ in aluminium disposable cylinder 1,6 l/70 bar – 1 piece test gas 3 % O ₂ ; 200 ppm CO; 100 ppm H ₂ ; balance N ₂ in aluminium disposable cylinder 1.6 l/70 bar	699R0063
Portable calibration unit with synthetic air for KS2DNO_x probe all types, as set including: – 1 piece bag for portable calibration unit (max. 3 disposable aluminium cylinder) – 1 piece flow controller with adjustable flow rate for disposable test gas aluminium cylinder – 1 piece instrument air adapter for flow controller – 1 piece test gas hose 6/3 mm/0.237x0.118 in. material silicone, length 1 m/39.37 in. – 1 piece compressed air hose 6x4 mm/0.237x0.158 in., material PUN, length 1 m/39.37 in. – 1 piece synthetic air for offset calibration in aluminium disposable cylinder 1,6 l/70 bar – 1 piece test gas 30 ppm NO; balance N ₂ in aluminium disposable cylinder 1,6 l/70 bar – 1 piece test gas 100 ppm NO; balance N ₂ in aluminium disposable cylinder 1.6 l/70 bar	699R0064

NOTICE

To calibrate the probes in the standard housing (650R1000,656R0000T, 656R2000) the testing device 650R1015 is required in addition to the portable adjustment unit.

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Spare Parts

Description	Order-No.
Carrying pouch for 3 test and calibration gas cylinders	650R1017
Test and calibration gas cylinders A (Aluminium single use cylinder with test gas A: 21 Vol.% O ₂ , Rest N ₂)	650R1020
Test and calibration gas cylinders B (Aluminium single use cylinder with test gas B: 3 Vol.% O ₂ , Rest N ₂)	650R1022
Test and calibration gas cylinders C (Aluminium single use cylinder with test gas C: 3 Vol.% O ₂ , 300 ppm CO _e *, Rest N ₂)	650R1021
Test and calibration gas cylinders D (Aluminium single use cylinder with test gas D: 30 ppm NO**, Rest N ₂)	650R1024
Test and calibration gas cylinders E (Aluminium single use cylinder with test gas E: 100 ppm NO**, Rest N ₂)	650R1026
Flow regulator with hose connection (with adjustable flow rate for test and calibration gas cylinders.	650R1016
Test gas hose (6x3 mm/0.237x0.118 in., silicone, length 1 m/39.37 in.)	650P0726
Instrument air adapter for flow controller	650R1018
Compressed air hose (6x4 mm/0.237x0.158 in., PUN, length 1 m/39.37 in.)	657P0547

* CO Equivalent CO_e is the sum of all components in the exhaust gas. In test gases, it is represented by CO and H₂ in proportion of 2:1, e.g. 300 ppm CO_e = 200 ppm CO + 100 ppm H₂

** A calibration with nitrogen corresponds to a calibration on NO_x for NO/NO₂ > 9, thus NO_x = NO+NO₂

The information in this publication is subject to technical changes.



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