

PD82-89 Precision Dead-weight Testers

OUTLINE

The PD82 dead-weight testers are used in research and production equipment standard generation systems, etc. They can also be used as the in-house or business office pressure standard in a wide medium pressure range (0.3 to 2MPa).

FEATURES

- Jcss Calibration Certification
- The Models PD82 and 89 are high-precision dead-weight testers which use dry nitrogen as the medium.
- These models are suitable for calibration of precision pressure devices or as the standard pressure generation system of various equipment.
- The pressure receiving part uses a piston and cylinder system to provide a stable and precise standard pressure.
- Taking into account rust, wear, and magnetism, the dead-weights are made of stainless steel.

SPECIFICATION 1

Type:
Bench type

Fluid:
Nitrogen gas

Operation:
Manual

Pressure range:
0.3→2MPa

Accuracy:
±0.02% of reading

Color of finish:
Pearl light green

Body weight:
15kg

Dead-weight composition

Model number	Measurement range MPa			Effective sectional area cm ²	Dead-weight correspondence MPa											Net weight of entire dead-weight Approx. kg		
	Max.	Min.	Smallest graduation		Piston		Bell		Dead-weight						Total			
					0.004	0.02	0.026	0.13	0.001	0.002	0.005	0.01	0.02	0.05			0.1	0.2
PD82-M01	0.3	*	0.001	5	1		1		1	2	1	1	1	5		0.32	16	
	0.5	0.004			1		1		1	2	1	1	1	1	4		0.52	26
	1	*	0.005	1		1		1			1	1	2	1	8		1.055	10
	2	0.02				1		1			1	1	2	1	2	8	2.055	21
PD89-M01	0.3				PD89 can be used in combination with PD82.													
	0.5																	
	1																	
	2																	
	5																	

A 20°C constant temperature room is desirable as the installation site of a dead-weight tester for gases. If such a room is not available, select a room with similar conditions. Upon request, we can adjust the weight of the dead-weight to match the gravitational acceleration of the place where the tester is inspected, so specify the requirement in your order. If not specified, we manufacture the tester based on a gravitational acceleration of 9.80665m/s² (internationally agreed standard value). However, when using the tester, correction with a standard weight is necessary.

* An accuracy of 0.02% is guaranteed at a measurement pressure of 0.03MPa or over.

PD82 · 89 Precision Dead-weight Testers

SPECIFICATION 2

PD89-M01: Control pack

The control pack is a device primarily designed for accurately adjusting the gas pressure applied to a dead-weight tester for gases.

Built-in fine adjustment valve and fine adjustment hand

pump make pressure control easy.

Use the PD82 with your own PD89 equivalent operating system or as a set with the PD89.

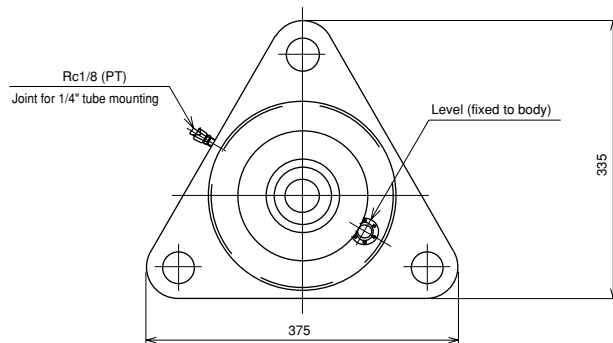
We recommend using the PD82 and PD89 as a set.

Body weight:

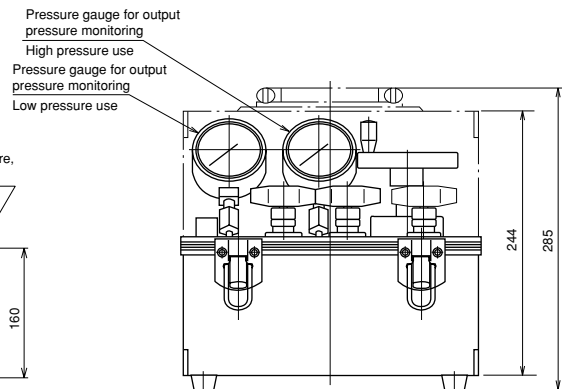
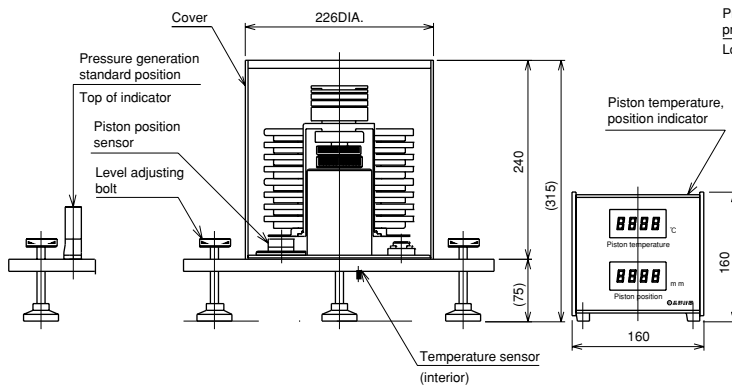
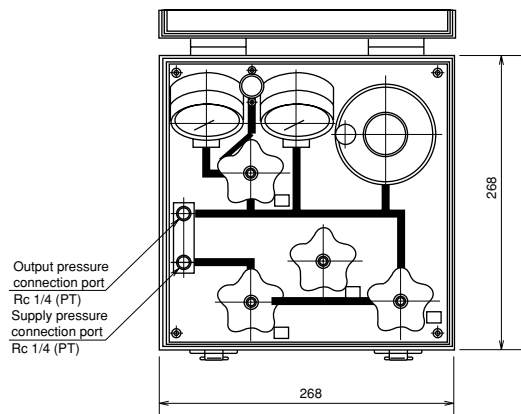
7.5kg

DIMENSIONS

PD82



Control pack (PD89)



ACCESSORIES & OPTIONS

Model	Gauge connection	Joints for connection	Spare parts & accessories			Case	Dead-weight case		
PD82	1 (Option)	<ul style="list-style-type: none"> • 1/4"-R1/4 (PT) Straight • 1/4"-R1/4 (PT) Elbow • 1/4"-R1/4 (PT) Sirbity • Connection tube 	1 1 1 2m	<ul style="list-style-type: none"> • Brush • Blower • Wiper holder • Handle for wiper holder 	1 1 1 1	<ul style="list-style-type: none"> • Screw bar for filter replacement • Wiper • O-ring (P18) • O-ring (P22 or P40) • Filter 	20 pcs 1 1 1	1 (Option)	1
PD89	—	<ul style="list-style-type: none"> • 1/4"-R1/4 (PT) Straight • 1/4"-R1/4 (PT) Elbow • 1/4"-R1/4 (PT) Sirbity • G1/4-Rc1/4 (PT) Joint • R1/4 Plug • G1/4 Plug • Connection tube 	1 2 1 1 1 1 4m	—	—	—	1	—	

OPERATING INSTRUCTIONS

- Avoid installation in places exposed to such conditions as excessive vibration, dirt and dust, corrosive atmosphere, and direct sunlight.
- Always install the dead-weight meter horizontally. If not installed horizontally, the correct pressure will not be indicated.
- Do not increase or decrease the pressure suddenly because it is dangerous. (Open and close the valves slowly.)
- Applying a pressure over the maximum pressure indicated on the PD82 and 89 are not only dangerous, but may also damage the tester.
- The dead-weights are precision manufactured. Do not file them with sandpaper and do not drop them.

Model number configuration

For ordering, please specify the model number, each specs and range.

P D 8	—	M 0 1	—	0						X	X	X	X	X		
Dead-weight type pressure standard		①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮
Model		Selective spec.					Additional spec. (Option)									
Model		2	M01 Type: Floor installation type Range: 0~2MPa Accuracy: ±0.02%O.R.													
Model		9	M01 Type: Controller (combined with PD82)													
(When ordering, please specify the range and units separately.)		④ Pressure range (MPa)		1	0.3											
				2	0.5											
				3	1											
				4	2											
				5	5 (Except PD82)											
		⑤ Dead-weight finish		0	Stainless steel (Standard)											
		⑥ Case		For PD82												
				0	Nil											
				1	With case											
				For PD89												
				X	Nil											
		⑦ Dead-weight case		For PD82												
				1	With case											
				For PD89												
				X	Nil											
		⑧ Certification		3	Jcss calibration certificate											
		⑨ Other additional specifications		0	Nil											
				1	Required (Please specify the desired documents separately.) Units specification (bar)											
		⑮ Documents		0	Nil											
				1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, attended inspection											

Specify "X" if there is no specification item.



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- DRESSER-NAGANO, INC.



- OVERSEAS PLANT
- OVERSEAS SALES NETWORK

Gets ISO 9001, ISO 14001, ISO/TS 16949 Certification

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