

Minerva Portable High Pressure Case

MNR 350 - G620(Ex)

*AUTONOMOUS HIGH PRESSURE SUPPLY AND ADJUSTMENT SYSTEM
FOR GE DPI 620(Ex)*

This case offers improved efficiency to quickly and safely perform clean, high pressure calibrations at your own location.

- Supports pressure ranges with full scale from 20 MPa down to 0.7 MPa in a single system
- Simple, compact and easy to operate
- Built-in refillable 28 MPa storage tanks for pressure supply
- Precise test pressure control using a pressure balanced volume controller
- Protected against overpressure
- Three analogue pressure gauges for monitoring pressure in storage system, regulated supply pressure and pressure at test ports
- Two test ports
- 316 SS high pressure tubing and fittings
- *Additional option:* ATEX certified version available for use in potentially explosive atmospheres.



Self contained unit provides pneumatic pressure for calibration and testing using a GE DPI 620(Ex) modular calibrator with GE DPI 620 PM interchangeable pressure modules.

The unit is designed as an accessory tool for your GE DPI 620 allowing fast and safe storage, supply and adjustment of pressure up to 20 MPa.

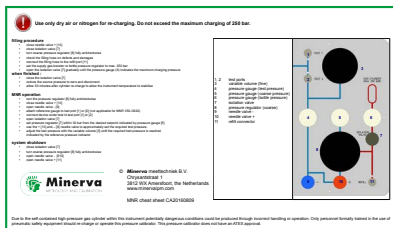
OPERATION

The built-in high pressure gas storage system is filled through the appropriate connection. Three separate monitor gauges are mounted to indicate storage system pressure, regulated pressure and pressure at test ports. The maximum test pressure is set using the supply regulator. The test pressure at the two test connections is precisely controlled by two fine metering needle valves and the pressure balanced volume adjuster.

The installed DPI 620 and connected pressure module display the test pressure. Externally generated pressures can also be measured via the test connections. The instrument is supplied with quick-connect test and filling hose, a ¼" NPT male adaptor for the test connection and filling and a refill connector.

IEC/ATEX certified IS version

Are you using the High Pressure Case in situations that require an IS calibrator? Then choose the IEC/ATEX certified case, especially designed and certified for controlling conditions in an explosive atmosphere.



Quick reference guide for safety and ease of use (not in ATEX version)



The Minerva MNR 90 precision volume adjuster allows very fine pressure control up to within 100 Pa

Connected DPI 620 pressure module (quick-connector)



Space to store extra pressure modules



The three pressure gauges indicate:
1. pressure in bottle
2. pressure set by pressure regulator
3. pressure at test port



The mold to seat the calibrator accommodates the DPI 620 multi-calibrator shown above. The tight fit ensures a stable setting and yet easy removal. The DPI 620 displays the pressure set at the test ports using the MNR controls. Original GE parts are used to connect the pressure module and DPI 620 both electronically and pneumatically ensuring full compatibility.



The Minerva MNR 180 pressure regulator is designed specifically for use in calibration and test applications

GE DPI 620 PRESSURE MODULES *

		Media	NLH&R (1*) 20°C ±2°C (68°F ± 4°F) 24 hr	NLH&R (1*) 20°C ±2°C (68°F ± 4°F) 24 hr	NLH&R (1*) 0° to 50°C (32° to 122°F) 24 hr	NLH&R (1*) 0° to 50°C (32° to 122°F) 24 hr	Total uncertainty 0° to 50°C (32° to 122°F) for 1 year	Total uncertainty 0° to 50°C (32° to 122°F) for 1 year
			Gauge	Sealed gauge (3*)	Gauge	Sealed gauge (3*)	Gauge	Sealed gauge (3*)
MPa	psi		%FS	%FS	%FS	%FS	%FS	
-0.1 to 0.7	-14.5 to 100	2 *	0.010	n/a	0.020	n/a	0.025	n/a
-0.1 to 1	-14.5 to 150	2 *	0.005	n/a	0.020	n/a	0.025	n/a
-0.1 to 2	-14.5 to 300	2 *	0.005	n/a	0.020	n/a	0.025	n/a
0 to 3.5	0 to 500	2 *	0.005	n/a	0.020	n/a	0.025	n/a
0 to 7	0 to 1000	2 *	0.005	n/a	0.020	n/a	0.025	n/a
0 to 10	0 to 1500	2 *	0.005	n/a	0.020	n/a	0.025	n/a
0 to 13.5	0 to 2000	2 *	0.005	n/a	0.020	n/a	0.025	n/a
0 to 20	0 to 3000	2 *	0.005	n/a	0.020	n/a	0.025	n/a
			Absolute	Sealed gauge (3*)	Absolute	Sealed gauge (3*)	Absolute	Sealed gauge (3*)
MPa	psi		%FS	%FS	%FS	%FS	%FS	
0 to 0.7	0 to 100	2 *	0.015		0.036		0.050	
0 to 1	0 to 150	2 *	0.015	0.005	0.030	0.020	0.047	0.025
0 to 2	0 to 300	2 *	0.015	0.005	0.030	0.020	0.047	0.025
0 to 3.5	0 to 500	2 *	0.015	0.005	0.030	0.020	0.047	0.025
0 to 7	0 to 1000	2 *	0.015	0.005	0.030	0.020	0.047	0.025
0 to 10	0 to 1500	2 *	0.015	0.005	0.030	0.020	0.046	0.025
0 to 13.5	0 to 2000	2 *	0.015	0.005	0.030	0.020	0.046	0.025
0 to 20	0 to 3000	2 *	0.015	0.005	0.030	0.020	0.046	0.025

New: IS version of the case available to be used in combination with GE DPI ATEX certified product.

- 1 * NLH&R Non-linearity, hysteresis and repeatability.
- 2 * Compatible with stainless steel.
- 3 * The reading can be referenced to ambient air pressure via a software feature of the DPI 620 Genii, allowing the same module to be switched between absolute and sealed gauge measurement.

* For updated and more detailed information on the DPI 620 and options please check the latest brochure of the manufacturer.

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TECHNICAL SPECIFICATIONS

Pressure ranges	See GE DPI 620, interchangeable pressure modules supported table page 3
Pressure measurement specs	See GE DPI 620, interchangeable pressure modules supported table page 3
MNR 350 control range	0 - 20 MPa gauge pressure
Gas storage system	2 x 1 litre capacity, filling pressure limited to 28 MPa, tested to 45 MPa
Monitor gauges	40 mm, analogue, all stainless steel: gas bottle pressure, regulated supply pressure, pressure at test port
Pressure regulator	Minerva Model 180 high pressure regulator, Range 0 - 25 MPa
Volume adjuster	Minerva Model 90, pressure balanced volume adjuster, displacement 11 cm ³ max 67 turn, precise pressure setting to within 100 Pa, stainless steel interior
Needle valves	Fine control valve for test pressure inlet and exhaust
Connections	Low volume Minimes 1215, quick connect couplings with internal check valve
Test / filling hose	Minimes 1215, length 2 meter, including 1/4" NPT male connector
Refill connection	For connection to nitrogen bottle, standard RU-3
Quick lock system in lid	Quick lock system for storing test hose and test connector
Housing	Pelicase. Material: ultra high impact copolymer
Dimensions	405 x 295 x 255 mm (L x W x H)
Weight	Approx. 19 kg
Certification	Pressure Equipment Directive (PED), Transportable Pressure Equipment Directive (TPED), CE conformity declaration
Accessories included	2 meter test / filling hose, 1/4" NPT male test adaptor, RU-3 refill connection
ATEX zone	II 3G Ex ic IIB T6 Gc (-10°C ≤ Ta ≤ +50°C)
Documentation included	Manual, PED conformity declaration, TPED conformity declaration, CE declaration
Ordering code	MNR-350-G620
Ordering code ATEX version	MNR-350-G620 ex

All specifications are subject to change for product improvement and without notice.

Pelicase is a trademark of Pelican Products, Inc.

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