

Minerva Portable High Pressure Case

MNR 350 - FL72x

*AUTONOMOUS HIGH PRESSURE SUPPLY AND ADJUSTMENT SYSTEM
FOR FLUKE 725(Ex)/726 AND FLUKE 750 PXX*

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.



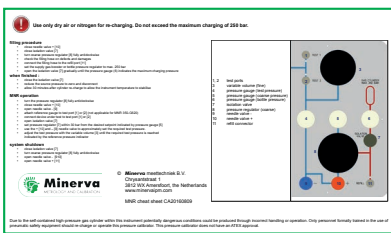
Self contained unit provides pneumatic-pressure for calibration and testing using a Fluke 725(Ex) or 726 calibrator with Fluke 750 PXX pressure modules.

The unit is designed as an accessory tool for your Fluke 725/726 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 connected Fluke pressure module displays 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 1/4" NPT male adaptor for the test connection and filling and a refill connector.



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 750 Pxx pressure module

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.



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



The space in the mold has been designed to fit one of the three Fluke proces calibrators shown above. The tight fit ensures a stable setting and yet easy removal. The electric cable to connect the pressure module is 100 cm long, allowing the module in use to be positioned wherever most convenient for the operator.



The Fluke pressure module can be placed here during transport



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



FLUKE 750 PXX PRESSURE MODULES *

This Minerva Portable High Pressure Case fits these Fluke Digital Pressure Models:

Model	Parameter/Range	Burst Rating ⁶	Hi Side Media ²	Reference Uncertainty ⁴	Total Uncertainty 1-year (15-35 °C)	Total Uncertainty 1-year ¹	Total Uncertainty 6-month (15-35 °C)	Total Uncertainty 6-month ¹
Gauge								
750P06	0 to 100 psi (0 to 0.7 MPa)	4X	316 SS	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750P27	0 to 300 psi (0 to 2 MPa)	4X	316 SS	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750P07	0 to 500 psi (0 to 3.5 MPa)	4X	316 SS	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750P08	0 to 1000 psi (0 to 7 MPa)	3X	316 SS	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750P09	0 to 1500 psi (0 to 10 MPa)	3X	316 SS	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750P2000	0 to 2000 psi (0 to 14 MPa)	3X	316 SS	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
High								
750P29	0 to 3000 psi (0 to 20 MPa)	3X	316 SS	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
Absolute								
750PA6	0 to 100 psia (0 to 0.7 MPa)	4X	316 SS	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %
750PA27	0 to 300 psia (0 to 2 MPa)	4X	316 SS	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %
750PA7	0 to 500 psia (0 to 3.5 MPa)	4X	316 SS	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %
750PA8	0 to 1000 psia (0 to 7 MPa)	3X	316 SS	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %
750PA9	0 to 1500 psia (0 to 10 MPa)	3X	316 SS	± 0.03 %	± 0.06 %	± 0.07 %	± 0.05 %	± 0.06 %
Dual								
750PD6	-15 to 100 psi (-1 to 0.7 MPa)	4X	316 SS	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750PD7	-15 to 200 psi (-1 to 1.4 MPa)	4X	316 SS	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
750PD27	-15 to 300 psi (-1 to 2 MPa)	4X	316 SS	± 0.0175 %	± 0.035 %	± 0.045 %	± 0.03 %	± 0.04 %
Reference								
750R06 ⁵	0 to 100 psi (0 to 0.7 MPa)	4X	316 SS	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS
750R27	0 to 300 psi (0 to 2 MPa)	4X	316 SS	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS
750R07	0 to 500 psi (0 to 3.5 MPa)	4X	316 SS	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS
750R08 ⁵	0 to 1000 psi (0 to 7 MPa)	3X	316 SS	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS
750R29	0 to 3000 psi (0 to 20 MPa)	3X	316 SS	± 0.01 % of FS	± 0.02 % of FS	± 0.04 % of FS	± 0.015 % of FS	± 0.035 % of FS

* For updated and more detailed information on the Fluke 725/726 and options please check the latest brochure of the manufacturer.

** IS version of the case available to be used in combination with Fluke Ex certified products.

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1. Total uncertainty, % of full span for temperature range 0 °C to +50 °C, one year interval. Total uncertainty, 1.0% of full span for temperature range -10 °C to 0 °C, one year interval. No 6 month specification available for range -10 °C to 0 °C.
2. "NONCORROSIVE GASSES" indicates dry air or non-corrosive gas as compatible media. "Stainless Steel 316-SS" indicates media compatible with Type 316 Stainless Steel.
3. Specifications % of Full Span unless otherwise noted.
4. * Reference Uncertainty is the specification for as left data for 24 hours.
5. When reference class modules are used with fixed resolution products (717, 718, 719 series, 725 and 726) calibrators add ± 1 count to the overall accuracy specification.
6. Burst rating specification refers to the multiplier times full scale of the module for the rated burst pressure.

TECHNICAL SPECIFICATIONS

Pressure ranges	See Fluke 750 PXX, interchangeable pressure modules supported table page 3
Pressure measurement specs	See Fluke 750 PXX, interchangeable pressure modules supported table page 3
MNR 350 control range	0 - 25 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 Minimess 1215, quick connect couplings with internal check valve
Test / filling hose	Minimess 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
Documentation included	Manual, PED conformity declaration, TPED conformity declaration, CE declaration
Ordering code	MNR-350-FL725/726
Ordering code ATEX version	MNR-350-FL725-250 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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