Additel
Metrology Made Simple

Additel 762W

Automated Hydraulic Pressure Calibrator

- **Automated pressure generation and control to 15,000 psi (1,035 Bar)**
- **Accuracy to 0.01%FS**
- **Dual-range manual or auto select**
- **Designed for use with water**
- **Automated fluid management**
- Control stability 0.005%FS
- Portable - designed for use in the field and in the lab
- Supports two external pressure modules
- Wi-Fi, LAN, Bluetooth, USB and Ethernet communication
- Full HART field communicator
- HART and PROFIBUS communication
- Data logging and task management
- Patented electric pump technology

OVERVIEW

The Additel 762W Automated Pressure Calibrator provides a revolutionary turnkey solution for automated pressure calibration work up to 15,000 PSI using deionized water as the working media.

Designed for use in both the field and the laboratory, the portability and accuracy of this state-of-the-art product will quickly become the favorite go-to calibrator for lab personnel and field technicians alike.

With fully automated support for calibration of pressure transmitters, switches, dial and digital gauges and sensors, including HART/PROFIBUS devices in conjunction with a fully integrated task feature, data collection and Wi-Fi connectivity, we had our customer's needs in mind when designing our most capable pressure calibrator to date.

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Rev # 20260818

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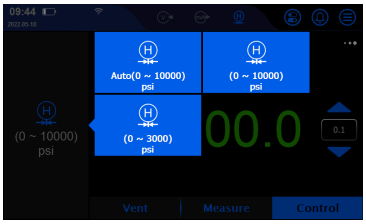
Dual-Range Accuracy to 0.01% FS

The ADT762W includes the unique ability to automatically switch between different internal calibrations depending on the current control pressure of the ADT762W. Additel provides calibrations unique to each ADT762 for ranges of 0-3,000 PSI (200 Bar) and 0-10,000 PSI (700 Bar) in the GP10K base model and 0-6,000 PSI (420 Bar) and 0-15,000 PSI (1,035 Bar) in the GP15K model. As the calibrator is pressurized, it will automatically select the control and measurement specification based on the specific pressure range. Pressure calibration range selection can be set to “auto” mode so the calibration range is automatically selected by the ADT762W based on the set point pressure, or the calibration range can be manually selected.



Built-in Auto-Purge Application

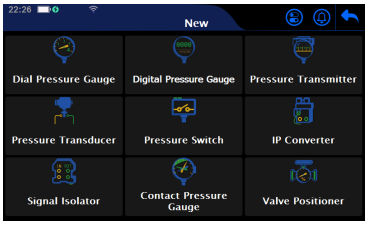
Purging hydraulic calibration systems can be challenging and time consuming. The ADT762W has been specifically designed for use with water. It comes standard with a specially designed manifold to help provide a constant positive pressure environment to mitigate concerns with contamination when using water as a medium. The integrated auto-purge system saves time, money and frustration by completely automating the removal of air from the system. With the push of a button, the ADT762W quickly manages the system purging. This helps to free up time for technicians to attend to other needs.

Dual-Port Manifold with Automatic Fluid Extraction

When using hydraulic systems, we know that oils are a better lubricant and sustain the life of seals and components than water. But we recognize that for some applications, using oil is not an option. The ADT762W is designed to only be used with deionized water. The ADT762W has a built-in fluid management system to reduce standing water in the system which eases future maintenance requirements. The ADT762W should be used with the provided manifold which has a communication connection directly to the unit to actuate a vent valve built into the manifold. This configuration is designed to prevent contaminated fluid from returning to the base unit and manifold as it is deposited into a special waste tank on the bottom of the ADT107 manifold. This function helps ensure the longest life of the unit and reduced maintenance costs.

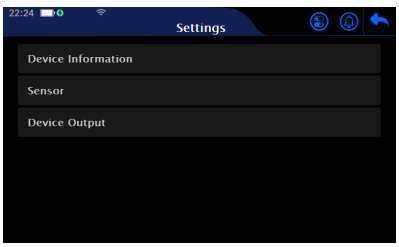
Documented Task Feature

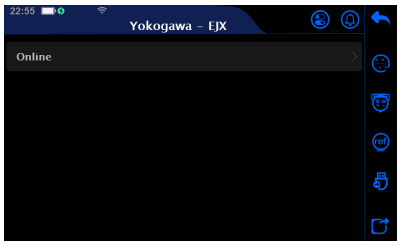
The powerful documented calibration task application allows users to quickly create and execute tasks without the need for a PC or tablet. The ADT762W automatically analyzes errors, generates test reports, while storing results locally. The Additel 762W can support up to 1000 documented tasks which can be stored and recalled at any time to help save time and money.

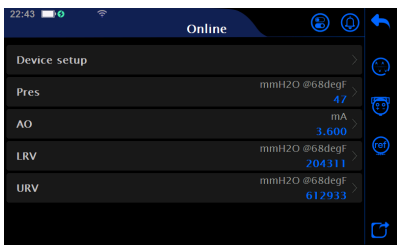


Dual-Mode HART Communication

HART pressure transmitters can be directly maintained and calibrated without any other equipment or tools. The ADT762W provides an automatic HART calibration mode as well as a manual mode. This dual-mode HART communication function not only provides an efficient and convenient interoperability mode for DUT, but also supports access to a fully HART capable calibrator.







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Pressure Specifications

Specification \ Model	ADT762W Automated Hydraulic Pressure Calibrator			
Pressure Range	15-10,000 psi (1-700 Bar) and 15-15,000 psi (1-1,035 Bar)			
Range Selection	Manual or auto-range 3K psi, 10K psi for the GP10K and Manual or auto-range 6k psi, 15K psi for the GP15K			
Accuracy	GP15K	0~15,000 psi	0.01%FS [2]	0.02%FS [2]
		0~6,000 psi		
	GP10K	0~10,000 psi		
		0~3,000 psi		
Resolution	7 digits for 0.01%FS		6 digits for 0.02%FS	
Measurement Units	Pa, hPa, kPa, mPa, bar, mbar, psi, mmHg@0°C, cmHg@0°C, mHg@0°C, inHg@0°C, inH2O@4°C, mmH2O@4°C, cmH2O@4°C, mH2O@4°C, mmH2O@20°C, cmH2O@20°C, mH2O@20°C, inH2O@20°C, inH2O@68°F, kgf/cm2, mtorr, torr, lb/ft2, tsi and 5 customizable units			
Maximum External Load Capacity	Max: 80 ml@60 MPa, 60 ml@100 MPa, 50 ml recommend			
Reservoir	Max: 350 ml, built-in filter			
Control Stability (30S)[1]	≤0.005%FS from 100 to 15,000 psi			
Stability Duration	> 5 min			
Pressure Module	Built-in one module with dual range			
External Control Pressure Module	See the following "External Control Pressure Module Specification and Compatibility" table			
External Measurement Pressure Module	All ADT161 pressure modules			

[1] Control Stability is based on the range selection or external module
[2] Pressure range capabilities are dependent on model. See ordering info.

Electrical Specifications

Specification \ Model	Range	Resolution	Accuracy	Note
mA Measure	-25 to 25 mA	0.1 μA	± (0.008%RD + 1.0 μA)	Impedance <10 Ω
	-50 to 50 mA	0.1 μA	± (0.008%RD + 2.0 μA)	
V Measure	-300 to 300 mV	1 μV	± (0.008%RD + 6 μV)	Impedance <1 GΩ
V Measure (Auto-ranging)	-5 to 5 V	20 μV	± (0.008%RD + 100 μV)	Impedance >1 MΩ
	-12 to 12 V	100 μV	± (0.008%RD + 320 μV)	
	-30 to 30 V	100 μV	± (0.008%RD + 600 μV)	
Loop Power Source	24 V	N/A	±1 V	50 mA (Max Loading)
mA Source	0 to 2.5 mA or 2.5 to 25 mA	0-2.5 mA: 0.05μA 2.5-25 mA: 0.5μA	0-2.5 mA: 0.008%RD + 0.2 μA 2.5-25 mA: 0.008%RD + 1.0 μA	20 mA @ 1 KΩ
Power Source	16 to 30 V	1 V	±1 V	70 mA (Max Loading)
V Source	0 to 16 V	0.25 mV	0.008%RD + 500 μV	
Pressure Switch	Mechanical Switch, Live Mechanical Switch, NPN Switch, PNP Switch	N/A	N/A	Response time<10 ms. If the switch is live, voltage range will be (3-30) V
Temperature Compensation	18 °C to 28°C			
Temperature Coefficient	Outside of 18 °C to 28 °C: <± 0.0005%RD + 0.00005%FS/°C			
Misuse Protection	Up to 30 V on any two sockets			
Pressure Switch Test	●			
HART / PROFIBUS PA	●			

● Supported

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External Control Pressure Module Specification and Compatibility

Specification / Model	Pressure Range (psi)	Pressure Range (bar)	Accuracy(%FS)	Pressure Type	Media
ADT161-01/02-GPXX	1,000	70	0.01, 0.02	Gauge	G,L
	1,500	100	0.01, 0.02	Gauge	G,L
	2,000	140	0.01, 0.02	Gauge	G,L
	3,000	200	0.01, 0.02	Gauge	G,L
	5,000	350	0.01, 0.02	Gauge	G,L
	10,000	700	0.01, 0.02	Gauge	G,L
	15,000	1000	0.01, 0.02	Gauge	G,L

General Specifications

Specification	Description
User Interface	Color touch screen and keypad operation
Display	7” TFT touch screen 800 x 480 color
Enclosure IP Rating	IP31
Power	Dedicated lithium battery or power adapter
Battery	Rechargeable Li-Ion battery, typically 8 hours of operation, less than 4 hours recharge.
Weight	28 lbs (12.8 kg) without media
Media	Deionized water,distilled water and pure water
Size	11.81 x 8.66 x 7.56 in (300 x 220 x 192 mm)
Communications	USB, LAN, Bluetooth, Wi-Fi and Ethernet
HART Communication	Read, configure and calibrate HART devices - DD files updated periodically
Data Storage	＞ 8 GB
Data Logging	Up to 1,000,000 readings (data and time stamped)
Task Documentation	Up to 1,000 tasks can be stored with data
Automation Functions	Switch test, auto step, leak test
User Interface Localization	English, German, French, Italian, Spanish, Portuguese, Chinese, Japanese, and Russian
Pump Life	> 1,000,000 cycles
Environmental Specifications	Operating temperature: 0 °C to 50 °C (32 °F to 122 °F)
	Storage temperature: 0 °C to 70 °C (32 °F to 158 °F)
	Humidity: <90%, non-condensing
Certification	ISO 17025 accredited certificate of calibration with NIST-traceable data
Compliance	CE
Software Compatibility	ACal, Additel Land and Additel Link for access via mobile application
Warranty	18 months
Hose & Filter End of Life	The estimated End of Life (EOL) expectancy for all accessory hoses and filters (pneumatic and hydraulic) is approximately 10 years and should be replaced at the first sign of wear or damage.

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ORDERING INFORMATION

Model Number

ADT762 W — 01 — GP15K — PSI — N

Accuracy:
01 = 0.01% of full span
02 = 0.02% of full span

Range:
GP10K = 10,000 psi
GP15K = 15,000 psi

Range type:
PSI - range by psi
BAR - range by bar

Pressure port type:
N - 1/4 NPT female
N2 - 1/2 NPT female
B - 1/4 BSP female
B2 - 1/2 BSP female
M - M20X1.5 female

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Accessories (included)

Model number	Quantity	Picture
9022 Test Leads	2 sets (4 pcs)	
USB Cable	1 pc	
9725 Rechargeable Li-ion battery	1 pc	
9818 110V/220V external Power adapter	1 pc	
Funnel	1 pc	
ADT100-762Hose High pressure hose	1 pc	
ADT100-762-SSTUBE Stainless steel high pressure hose	1 pc	
ADT107-X-KIT Dual ports manifold (15,000 psi), and zero return communication cable	1pc	
Small accessory case (For cables and adaptors)	1 pc	
Transportation cap	1 pc	
9241W Replacement gas filled accumulator for ADT762W and ADT793W	1 pc	
9907-762 Carrying case	1 pc	
O rings for liquid storage tank 3.5*1.2-NBR70	10 pcs	
O rings for right angle connector 5*1.5-NBR70	10 pcs	
O rings 10*2-NBR70	10 pcs	
O rings 6.5*3-NBR80	20 pcs	
O rings 6*2-NBR70	20 pcs	
9060 Pressure module connection cable	1 pc	
Pressure hose for accumulator inflation 5 feet (polyamide, 2,390 psi burst)	1 pc	
ADT100-BSPM4-FNG For accumulator inflation (Only when using hand pumps)	1 pc	
ISO17025 accredited calibration certificate	1 pc	

Optional Accessories

Model number	Description	Picture
ADT161	Pressure modules see pg. 4	
9241W	Replacement gas filled accumulator for ADT762W and ADT793W	

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