

# ADT 762

## Automated Hydraulic Pressure Calibrator



- **Automated pressure generation and control to 10,000 psi (700 bar)**
- **Accuracy to 0.01% FS**
- **Dual-range manual or auto select**
- **Control stability < 0.005% FS**
- **Portable, designed for use in the field and in the lab**
- **Control by optional external pressure modules**
- **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 762 Automated Pressure Calibrator is unlike any other pressure calibrator on the market. This revolutionary product is a complete turnkey solution for automation of pressure calibration work up to 10,000 psi.

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.

### Dual-Range Accuracy to 0.01% FS

The ADT762 includes the unique ability to automatically switch between different internal calibrations depending on the current control pressure of the ADT762.

Additel provides calibrations unique to each ADT762 for ranges of 0-3,000 psi (200 bar) and 0-10,000 psi (700 bar). 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 ADT762 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 ADT762 has been designed with an integrated auto-purge system that saves time, money and frustration by completely automating the removal of air from the system. With the push of a button, the ADT762 quickly manages the system purging. This helps to free up time for technicians to attend to other needs.



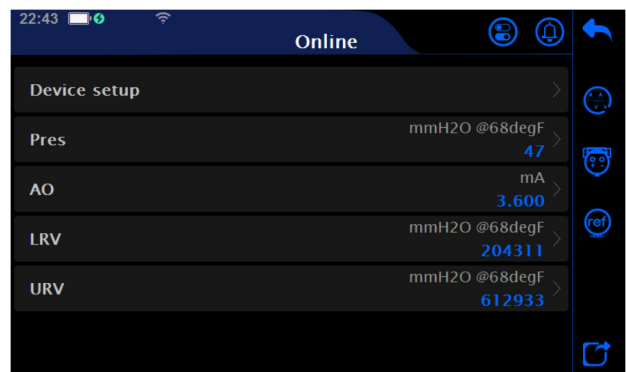
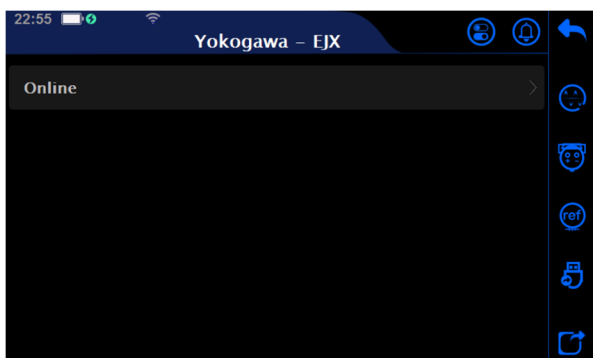
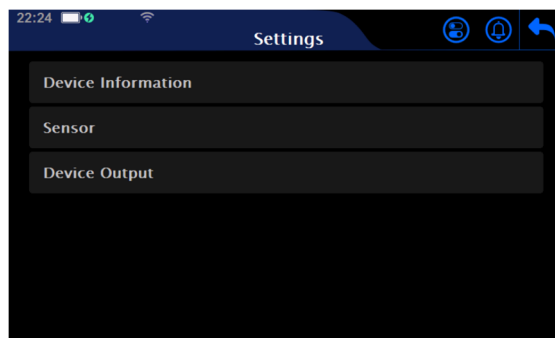
**Documented Task Feature**

The powerful documented calibration task application allows users to quickly create and execute tasks without the need for a PC or tablet. The ADT762 automatically analyzes errors, generates test reports, while storing results locally. The Additel 762 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 ADT762 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.



**Pressure Specifications**

Specification	ADT 762 Automated Hydraulic Pressure Calibrator	
<b>Pressure Range</b>	<b>1 - 700 bar</b> (15~10,000 psi)	
<b>Range Selection</b>	Manual 3K psi, Manual 10K psi or Auto-range	
<b>Accuracy</b> <sup>[1]</sup>	<b>0 ~ 700 bar</b> (10,000 psi) <b>0.01%FS</b>	<b>0 ~ 700 bar</b> (10,000 psi) <b>0.02%FS</b>
	<b>0 ~ 200 bar</b> (3,000 psi) <b>0.01%FS</b>	<b>0 ~ 200 bar</b> (3,000 psi) <b>0.02%FS</b>
<b>Resolution</b>	7 digits	6 digits
<b>Measurement Units</b>	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, custom	
<b>Maximum External Load Capacity</b>	Max: 80 ml@700 bar, 50 ml recommend	
<b>Reservoir</b>	Max: 350 ml, built-in filter	
<b>Control Stability</b> <sup>[1]</sup>	≤ 0.005%FS from 100 to 10,000 psi	
<b>Stability Duration</b>	> 5 min	
<b>Pressure Module</b>	Built-in one module with dual range	
<b>External Control Pressure Module</b>	See the following "External Control Pressure Module Specification and Compatibility" table	
<b>External Measurement Pressure Module</b>	All ADT161 pressure modules	

[1] Control Stability is based on the range selection or external module



### Electrical Specifications

Specification	Range	Resolution	Accuracy	Note
<b>mA Measure</b>	-25 to 25 mA	0.1 $\mu$ A	$\pm(0.008\%RD + 1.0 \mu A)$	Impedance <10 $\Omega$
	-50 to 50 mA	0.1 $\mu$ A	$\pm(0.008\%RD + 2.0 \mu A)$	
<b>V Measure</b>	1300 to 300 mV	1 $\mu$ V	$\pm(0.008\%RD + 6 \mu V)$	Impedance <1 G $\Omega$
<b>V Measure (Auto ranging)</b>	-5 to 5 V	20 $\mu$ V	$\pm (0.008\%RD + 100 \mu V)$	Impedance >1 M $\Omega$
	-12 to 12 V	100 $\mu$ V	$\pm (0.008\%RD + 320 \mu V)$	
	-30 to 30 V	100 $\mu$ V	$\pm (0.008\%RD + 600 \mu V)$	
<b>Loop Power Source</b>	24 V	N/A	$\pm 1$ V	50 mA (max loading)
<b>mA Source</b>	0 to 2.5 mA or 2.5 to 25 mA	0-2.5 $\mu$ A: 0.05 $\mu$ A 0-25 mA: 0.5 $\mu$ A	0-2.5 mA: 0.008%RD+0.2 $\mu$ A 0-25 mA: 0.008%RD+1.0 $\mu$ A	20 mA @ 1 K $\Omega$
<b>Power Source</b>	16 to 30 V	1 V	$\pm 1$ V	70 mA (max loading)
<b>V Source</b>	0 to 16 V	0.25 mV	0.008%RD +500 $\mu$ V	
<b>Pressure Switch</b>	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
<b>Temperature Compensation</b>	18°C to 28°C			
<b>Temperature Coefficient</b>	Outside of 18 °C to 28°C: $\leq \pm 0.0005\%RD + 0.00005\%FS/^{\circ}C$			
<b>Misuse Protection</b>	Up to 30 V on any two sockets			
<b>Pressure Switch Test</b>	•			
<b>HART/PROFIBUS PA</b>	•			



**External Control Pressure Module Specification and Compatibility**

Model	Pressure Range		Accuracy <sup>(1)</sup>	Pressure Type	Media
	(psi)	(bar)			
ADT161-01-GPXX for 0.01%FS	1,000	70	0.01% FS	Gauge	Gas, Liquid
	1,500	100	0.01% FS	Gauge	Gas, Liquid
	2,000	140	0.01% FS	Gauge	Gas, Liquid
	3,000	200	0.01% FS	Gauge	Gas, Liquid
	5,000	350	0.01% FS	Gauge	Gas, Liquid
	10,000	700	0.01% FS	Gauge	Gas, Liquid
ADT161-02-GPXX for 0.02%FS	1,000	70	0.02% FS	Gauge	Gas, Liquid
	1,500	100	0.02% FS	Gauge	Gas, Liquid
	2,000	140	0.02% FS	Gauge	Gas, Liquid
	3,000	200	0.02% FS	Gauge	Gas, Liquid
	5,000	350	0.02% FS	Gauge	Gas, Liquid
	10,000	700	0.02% FS	Gauge	Gas, Liquid



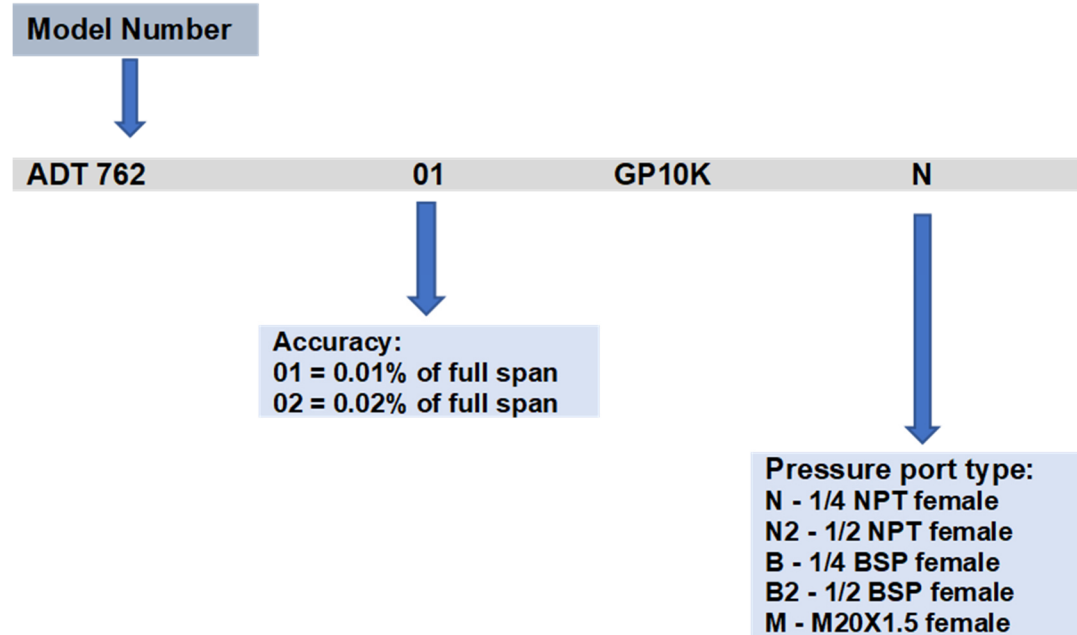
## General Specifications

Specification	Description
User Interface	Color touch screen and/or 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 12 hours of operation, less than 5 hours recharge
Weight	28 lbs (12.8 kg) without media
Media	Sebacate oil
Size	300 x 220 x 192 mm (11.81 x 8.66 x 7.56 in)
Communications	USB, LAN, Bluetooth, Wi-Fi and Ethernet
HART Communicator	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 1000 tasks can be stored with data
Automation Functions	Switch test, auto step, leak test
Multi Lingual Interface	English, German, French, Italian, Spanish, Portuguese, Chinese, Japanese and Russian
Pump Life	> 1,000,000 cycles
Environment Specifications	Operating temperature: 0°C to 50°C (32 °F to 122 °F)
	Storage temperature: -20°C to 60°C ( -4 °F to 120 °F)
	Humidity: <90%, non-condensing
Certification	ISO17025 accredited certificate of calibration with NIST-traceable data
Compliance	CE
Software Compatibility	ACal, Additel Land and Additel Link for access via mobile application
Warranty	1 year
Hose & Filter End of Life	The estimated End of Life (EOL) expectancy for all hoses and filters (pneumatic and hydraulic) is approximately 10 years and should be replaced at the first sign of wear or damage.



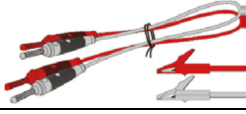













## Ordering information

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**Accessories (included)**

Model number	Quantity	Picture
<b>9022 Test Leads</b>	2 sets (4 pcs)	
<b>USB Cable</b>	1pc	
<b>9725 Chargeable Li-ion battery</b>	1 pc	
<b>9818 110V/220V external Power adapter</b>	1 pc	
<b>Funnel</b>	1 pc	
<b>ADT100-762 Hose High Pressure Hose</b>	1 pc	
<b>Small accessory case (for cables and adaptors)</b>	1 pc	
<b>Transportation cap</b>	1 pc	
<b>9907-762 Carrying case</b>	1 pc	
<b>9203 Sebacate oil (500 ml)</b>	1 bottle	
<b>O rings for liquid storage tank 3.5*1.2-NBR70</b>	5 pcs	
<b>O rings for right angle connector 5*1.5-NBR70</b>	5 pcs	
<b>9060 (Pressure module connection cable)</b>	1 pc	
<b>ADT100-762-X</b>	1 pc	

**Optional Accessories**

Model Number	Description	Picture
<b>ADT107-X-Kit</b>	Includes dual ports manifold, pressure hose and zero return communication cable	
<b>ADT 161</b>	Pressure modules see pg. 4	
<b>ADT100-762-X</b>	ADT762 right angle connector	
<b>9204</b>	Sebacate Oil (1 Liter)	

**Your Note**

Lined area for notes, consisting of horizontal dashed lines.