

# Additel 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  $\leq 0.005\%FS$
- 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.



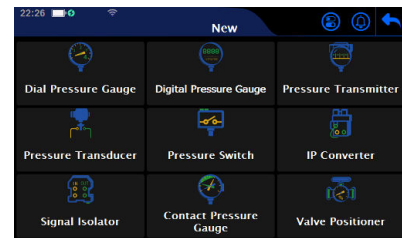
### Built-in Auto-Purge Application

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.



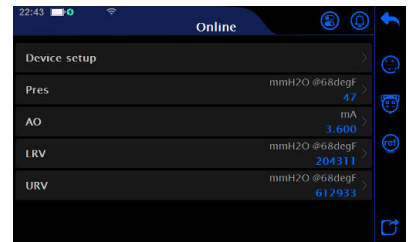
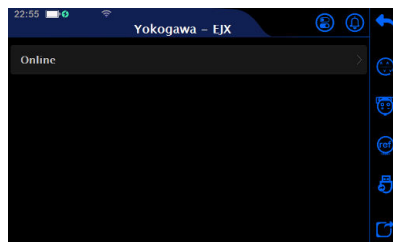
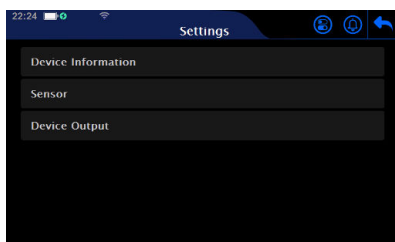
### Documented Task Feature

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

| Model                                | ADT762 Automated Hydraulic Pressure Calibrator   |                              |
|--------------------------------------|--|------------------------------|
| Specification                        |  |                              |
| Pressure Range                       | 0~10,000 psi (0-700 Bar)   |                              |
| Range Selection                      | Manual 3K psi, Manual 10K psi or Auto-range  |                              |
| Accuracy                             | 0~10,000 psi, <b>0.01%FS</b>   | 0~10,000 psi, <b>0.02%FS</b> |
|                                      | 0~3,000 psi, <b>0.01%FS</b>  | 0~3,000 psi, <b>0.02%FS</b>  |
| Maximum External Load Capacity       | Max: 80 ml@700 Bar, 50 ml recommend  |                              |
| Reservoir                            | Max: 350 ml, push-on reservoir cap, built-in filter  |                              |
| Control Stability <sup>[1]</sup>     | ≤ 0.005%FS   |                              |
| 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

## Electrical Specifications

| Model                    | Range   | Resolution                           | Accuracy  | Note  |
|--------------------------|---|--------------------------------------|---|---|
| Current Measure          | Auto-ranging<br>±25 or ±50 mA   | 0.1 μA                               | 0.008 %RD + 1.0 μA  | Impedance < 10 Ω  |
|                          |   |                                      | 0.008 %RD + 2.0 μA  |   |
| Voltage Measure          | ±300 mV   | 1 μV                                 | 0.008 %RD + 6 μV  | Impedance > 1 GΩ  |
|                          |   |                                      | 0.008 %RD + 100 μV  |   |
|                          | Auto-ranging<br>±5, ±12 or ±30 V  | ±5 V: 20 μV                          | 0.008 %RD + 240 μV  | Impedance > 1 MΩ  |
|                          |   |                                      | ±12 V: 0.1 mV   |   |
| Loop Power Source        | 24 V  | N/A                                  | ±1 V  | 50 mA (Max Loading)   |
| mA Source                | 0 to 2.5 mA or<br>2.5 to 25 mA  | 0-2.5 mA: 0.05 μA<br>0-25 mA: 0.5 μA | 0-2.5 mA: 0.008 %RD + 0.1 μA<br>0-25 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 + 0.002 %FS                                       |   |
| Pressure Switch          | Mechanical Switch,<br>Live Mechanical Switch,<br>NPN Switch, PNP Switch | N/A                                  | N/A   | Response time < 10 ms<br>if the switch is powered.<br>Voltage range: (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



## External Control Pressure Module Specification and Compatibility

| Model                          | Specification | Pressure Range |       | Accuracy (%FS) | Pressure Type | Media |
|--------------------------------|---------------|----------------|-------|----------------|---------------|-------|
|                                |               | (psi)          | (bar) |                |               |       |
| ADT161-01-GPXXM<br>for 0.01%FS |               | 1,000          | 70    | 0.01           | Gauge         | G,L   |
|                                |               | 1,500          | 100   | 0.01           | Gauge         | G,L   |
|                                |               | 2,000          | 140   | 0.01           | Gauge         | G,L   |
|                                |               | 3,000          | 200   | 0.01           | Gauge         | G,L   |
|                                |               | 5,000          | 350   | 0.01           | Gauge         | G,L   |
|                                |               | 10,000         | 700   | 0.01           | Gauge         | G,L   |
| ADT161-02-GPXX<br>for 0.02%FS  |               | 1,000          | 70    | 0.02           | Gauge         | G,L   |
|                                |               | 1,500          | 100   | 0.02           | Gauge         | G,L   |
|                                |               | 2,000          | 140   | 0.02           | Gauge         | G,L   |
|                                |               | 3,000          | 200   | 0.02           | Gauge         | G,L   |
|                                |               | 5,000          | 350   | 0.02           | Gauge         | G,L   |
|                                |               | 10,000         | 700   | 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 12 hours of operation, less than 5 hours recharge. |
| Weight                       | 28 lbs (12.8 kg) without media  |
| Size                         | 11.81 x 8.66 x 7.56 in (300 x 220 x 192 mm)   |
| Communications               | USB, LAN, Bluetooth, Wi-Fi  |
| 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: 32 °F to 122 °F ( 0 °C to 50 °C)                                   |
|                              | Storage temperature: -20 °C to 60 °C ( -4 °F to 120 °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                     | 1 year  |

## ORDERING INFORMATION

### Model Number

ADT762

01

GP10K

N

#### Accuracy:

01 = 0.01% of full span

02 = 0.02% of full span

#### 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



| Accessories (included)                            |                   |         |
|---|-------------------|---------|
| Model number                                      | Quantity          | Picture |
| 9022<br>Test Leads                                | 2 sets<br>(4 pcs) |         |
| USB Cable   | 1 pc              |         |
| 9725<br>Rechargeable Li-ion battery               | 1 pc              |         |
| 9818<br>110V/220V external<br>Power adapter       | 1 pc              |         |
| Funnel  | 1 pc              |         |
| ADT100-762Hose<br>High pressure hose              | 1 pc              |         |
| Small accessory case<br>(For cables and adaptors) | 1 pc              |         |
| Transportation cap                                | 1 pc              |         |
| 9907-762<br>Carrying case                         | 1 pc              |         |
| 9203<br>Sebecate oil<br>(500ml)                   | 1 bottle          |         |
| O rings for liquid storage tank<br>3.5*1.2-NBR70  | 5 pcs             |         |
| O rings for right angle connector<br>5*1.5-NBR70  | 5 pcs             |         |
| 9060<br>Pressure module connection cable          | 1 pc              |         |
| ADT100-762-X                                      | 1 pc              |         |
| ISO17025 accredited<br>calibration certificate    | 1 pc              |         |

| Optional Accessories |   |         |
|----------------------|---|---------|
| Model number         | Description   | Picture |
| ADT107-X-KIT         | Includes dual ports manifold, pressure hose and zero return communication cable |         |
| ADT161               | Pressure modules<br>see pg. 4   |         |
| ADT100-762-X         | ADT762 right angle connector  |         |