



# **ADT680A/680P Digital Pressure Gauges ADT680AEx/680PEx/601Ex Digital Pressure Gauges**

## **Quick Start Guide**



[Version: 2403V01]

## Safety Instructions

**Warning** indicates conditions which may cause injury to operator;

**Note** indicates conditions which may damage the pressure gauge or impact the calibration result.

### Warning:

**To prevent the user from injury, please follow this user manual for use.**

**To prevent fire, electric shock, or personal injury, please do as follows:**

#### 1. General:

**The pressure medium should be verified before use. Please adhere to the following instructions:**

- ◆ Please read the user manual before using the product, especially the "Safety Instructions".
- ◆ Before using the product, please check the appearance of the product to ensure there is no damage.
- ◆ Please refer to the operation steps in the manual when using the product.
- ◆ Please be sure to store, transport and use this product in the correct direction.
- ◆ If the product is damaged or malfunctions, please do not use it and contact Additel.
- ◆ Never use the non-Ex product in an explosive, steam, or dust environment.

#### 2. Electrical:

- ◆ Before using the product, please make sure that the power supply is properly connected.

### Attention:

**To prevent injury, please carefully follow the instruction manual for use.**

**To prevent damage, please do as follows:**

- ◆ Do not use the instrument in a high vibration environment.
- ◆ If the gauge is behaving abnormally, please stop using it and contact Additel.

## Intrinsically Safe Information

**ADT680AEx/680PEx/601Ex have intrinsically safe certification:**

#### 1.IECEx&ATEx:



**Ex ia IIC T4 Ga**

**Ta=-20°Cto+50°C**

IECEX CSA 23.0046X

CSANe 23ATEX1214X

2.CSA:

Class I, Division 1, Groups A, B, C and D, T4

Class I, Zone 0, AEx ia IIC T4 Ga

CSA 24CA 80172346X

Ex ia IIC T4 Ga

Ta=-20°C to +50°C

## Basic Structure



Basic structure of ADT680A/680AEx/601Ex



Basic structure of ADT680P/680PEx

### Basic structure list

| No. | Name                                                                                               | Description                                                                                                      |
|-----|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 1   | Display                                                                                            | Show pressure, menu...                                                                                           |
| 2   | Units button      | Short press: switch units in main display, move to right, "return"<br>Long press: go to Settings in main display |
| 3   | Backlight button  | Short press: backlight on/off in main display or move downward.<br>Long press: view peak values in main display  |
| 4   | Zero button       | Short press: pressure zero in main display, or "Confirm."<br>Long press: Bluetooth on/off in main display        |
| 5   | Power button      | Short press: Unlock, functions as "return" when in number input or menus.<br>Long press: to power on/off         |
| 6   | Communication                                                                                      | RS232 or empty                                                                                                   |
| 7   | Pressure sensor                                                                                    | Integrated with the gauge                                                                                        |
| 8   | Pressure module                                                                                    | Digital pressure module, removable                                                                               |

### RS232 DB9 Female pins description

| Pins             | Description |
|------------------|-------------|
| 1, 4, 6, 7, 8, 9 | Reserved    |
| 2                | TXD         |
| 3                | RXD         |
| 5                | GND         |



RS232 DB9 Female pins description diagram

### Warning:

Any data communication devices connected to the ADT680AEx/680PEX/601Ex shall be approved SELV or Class 2 equipment against IEC 60950 or an equivalent IEC standard. The maximum voltage  $U_m$  from the device shall not exceed 16 Vdc for RS232 port.

## Power Supply

**1. ADT680A/680P:** Power can be supplied by 3\*AA(LR6) battery or 9814 RS232 power supply communication kit (Optional).



ADT680A/680P adapter diagram



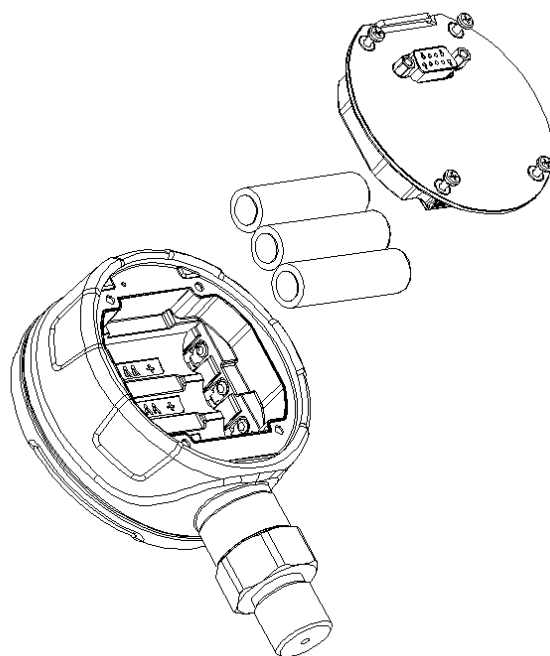
ADT680A/680P battery installation

### Warning:

- ◆ When using battery as power supply, please replace batteries if a low battery is indicated.
- ◆ When replacing the battery, please note the direction of battery electrodes.

## 2. ADT680AEx/680PEx/601Ex: Only use approved battery models (see below)

### ADT680AEx/680PEx/601Ex battery installation



Approved battery models:

| Manufacturer | Type | Ta         |
|--------------|------|------------|
| ENERGIZER    | E91  | (-18~45)°C |
| Maxell       | LR6  | (-20~60)°C |
| Rayovac      | 815  | (-30~55)°C |

#### Warning:

- ◆ When using battery as power supply, please replace batteries if a low battery is indicated.
- ◆ When replacing the battery, please note the direction of battery electrodes.
- ◆ Never replace the battery in hazardous area.
- ◆ Use only the approved battery models.

# Display and Buttons

## 1. Display and buttons description:



Display and buttons description

# Menu Structure and Operation

## 1. Menu structure

Long press  to enter menu and start, please also refer to display and buttons description diagram.



Menu structure

## 2. Basic menu operation



Basic menu operation

### Error Code

| Code | Description          | Solutions                                                                                   |
|------|----------------------|---------------------------------------------------------------------------------------------|
| 001  | Wrong password       | Check the password                                                                          |
| 002  | Parameter over range | The entered value exceeds the range allowed by the pressure gauge, please enter a new value |
| 003  | Operation failed     | Try again                                                                                   |

# Link App Connection

## 1. Scan the QR Code to Download Link App

Additel Link is a mobile app available on Android and iOS system. It can connect to pressure gauges through Bluetooth, display real-time pressure reading and status, configure gauge parameters, switch pressure units, pressure zero, start/stop data log, download and view data from the gauge, calibrate pressure gauges and export CSV data for sharing.



## 2. Enable the Bluetooth

Check and make sure the Bluetooth of the cell phone is enabled, then go to the gauge main display and long press Zero button to turn on/off the Bluetooth.

## 3. Connect to the Gauge

### 3.1 Scan the Code



### 3.2 Manual Connection by Searching MAC Address



## Calibration Example

Enter password "1234" to calibrate, complete the calibration by go to: lower limit calibration point -> show lower limit measured value -> upper limit calibration point -> show upper limit measured value.



Calibration example

# Metrology Made Simple

## Statement

The product technical specifications, accessories and other related information in this manual are subject to change without prior notice. Please contact Additel Corporation if you have any questions.



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