

ADT 260Ex Handheld Multichannel Reference Recorder



Additel 260Ex with ADT158Ex module

- **Up to 8 measurement channels**
- **Intrinsically safe**
- **Field Switchable Pressure Module**
- **Pressure Accuracy to 0.02% FS**
- **Data logging with Real-time Graphical Trending**
- **Supports Hydrostatic Testing**
- **Color Touchscreen Display**
- **Built-in Barometer**
- **Optional RTD Probes Available**
- **Bluetooth and USB Communication**
- **Communicates with Additel's Link Mobile App**

Overview

Additel's 260Ex is an intrinsically safe handheld multichannel reference recorder with 8 different channel configurations. Armed with Additel's most versatile and capable handheld, technicians are now able to measure and collect data for pressure, temperature (RTD probes available), barometric pressure and electrical measurement all in one highly portable device. The powerful logging capability and high-level of intrinsic safety make the ADT260Ex the perfect companion for use in the pipeline industry by supporting hydrostatic pressure testing, air leak testing, inlet and outlet pressure testing at pump stations, safety valve and ex-proof membrane testing, wellhead pressure testing, pipeline filter testing, differential pressure transmitter/flow computing testing, as well as routine calibration of pressure devices.

Intrinsically Safe:

The ADT260Ex has passed the most stringent ATEX, IECEx intrinsic safety certifications. Each unit complies with a certification level of Ex ia IIC T4 Ga. This highly qualified reference recorder can be widely used in potentially explosive gas environments, such as oil and gas platforms, refineries, chemical and petrochemical plants, pharmaceutical industry, energy and gas processing industry.

Datalogging Capabilities:

The Additel 260EX includes a sizable built-in automatic recording capability which supports multi parameter logging, trend curve display, local curve observation and statistical feedback. The logged results are stored onboard and can be viewed locally. The data storage capacity is up to 10 million readings (single channel) with a logging interval that is configurable from 0.1s ~ 9999s.

8 Channel Combinations:

Channel 1: Built-in digital pressure module, field switchable

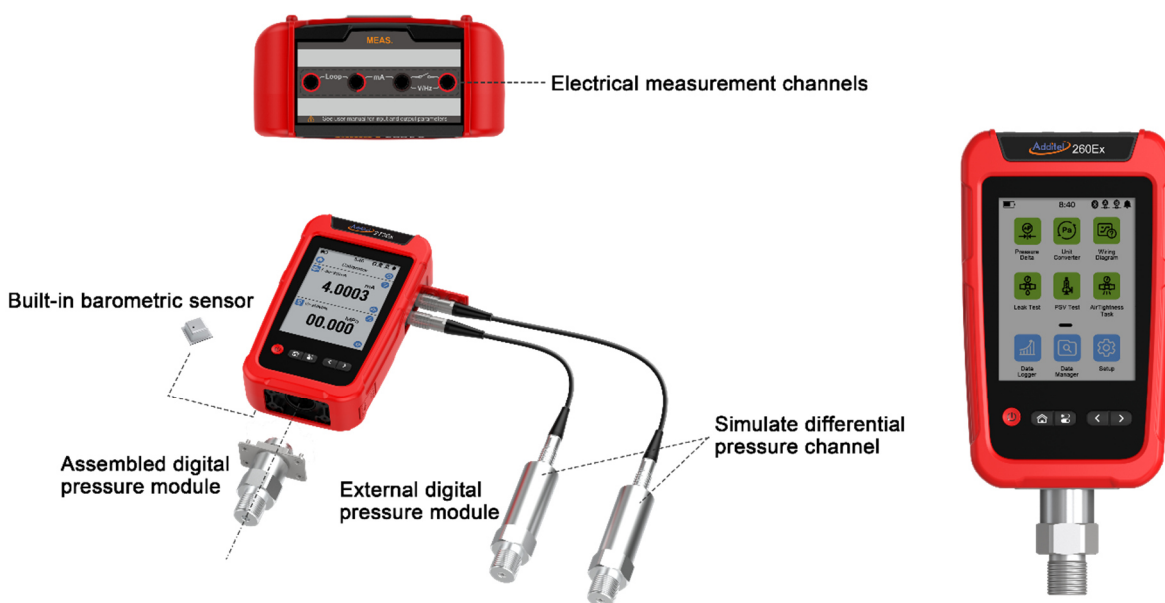
Channel 2: Built-in barometer, which can be calibrated by the user

Channels 3 and 4: External digital pressure module inputs

Channel 5: Simulated differential pressure channel synthesized using channels 3 and 4

Channels 6 and 7: Temperature measurement channels supporting resistance sensors with 2, 3 or 4 wires

Channel 8: Measures current, voltage, frequency, pulse or switch testing. Built-in loop power included.



Functional Features

Functional Features	Details
RTD Measurement	2, 3, or 4 wire (user selectable). Unit measurement as °C, °F, K or ohms..
Filtering	Average sliding filter (sample 1-50) first-order linear filter (coefficient 0.01-1)
Switch	The measurement value will be automatically displayed at the moment the switch changes state. The latest 8 state changes will be stored in the memory.
Pressure Tare	Tare value is set through the user interface
Pressure stability indicator	Stability time and criteria is selectable
Power management	Backlight auto off Auto power off

Specifications

General Specification	
Input Channel	Top: 2 channels RTD measurement, 1 channel electric signal measurement, ø4mm banana jacks
	Right side: 2 channels for external digital pressure module, Lemo style connection
	Bottom: embedded digital pressure module (model ADT158Ex) field switchable.
	Internal: 1 embedded atmospheric pressure sensor
Barometric Accuracy	±55 Pa
Measurement Rate	mV, V, mA & frequency and RTD: 3 times/ sec.
	Pressure module: 1~10 times/sec selectable (3 as default))
	Barometric: 1 times/ sec.
Data Storage	Logging interval: from 0.1~9999 seconds, log up to 10 million readings (single channel)
Power	4000mAh, 14.4Wh explosion-proof intelligent lithium battery, charging time is 6~8 hours, the battery can be charged independently. Typical working time 100 hours (measurement mode))
Environmental	Guaranteed temperature range of technical specifications: (-10 ~ 50)°C
	Operating temperature: (-20 ~ 50)°C
	Storage temperature range: (-30 ~ 70)°C
	Humidity: 0% to 95% RH, non-condensing
	Altitude: 3000 meters
Warm Up Time	10 minutes to fully meet technical specifications
Port Protection Voltage	30V max.
Explosion-proof Grade	ATEX & IECEx: Ex ia IIC T4 Ga (Ta = -20°C ~ +50°C)
CE Certification	TUV IEC61326, IEC61010
Rohs Compliance	Rohs II Directive 2011/65/EU,EN50581:2012
Protection Level	IP67, 1 meter drop test
Communication	Ilisolate USB-TYPEC (slave), Bluetooth
Display	4.4-inch color display capacitive screen, transflective, with LED backlight
Size	177 mm x 105 mm x 52 mm (6,97" x 4,13" x 2,04"), which does not include the bottom mount ADT158Ex if installed.
Weight	0.75 kg (1,65 lb)
Warranty Time	1 Year

Electrical Specification

Specification	Range	Accuracy	Resolution	Note
RTD Measurement Accuracy	0~400Ω	0.01%RDG+ 20 mΩ ²	1mΩ	Excitation current: 1 mA
Voltage Measurement	±300mV	0.015%RDG + 1.5 mV	1μV	Impedance: >100MΩ
	±30V	0.015%RDG + 1.5 μA	0.1mV	Impedance: >1MΩ
Current Measurement	±30mA	0.015%RDG + 1.5 μA	0.1μA	Impedance: < 40Ω
Frequency Measurement	0,01~50000Hz (auto range)	0.005% RDG + 2 last digit	6-digit auto- resolution	Min threshold voltage: 2.5V
	Units: Hz, kHz, MHz, CPM, CPH, s, ms, us			
Switch On-Off Measurement	Inspection voltage: (3 ~ 30)V Response speed: < 10ms, supports wet and dry switch			
Pulse Count	0 ~ 9999999, optional rising edge and falling edge Min. threshold voltage: 2.5V			
Loop Power	20V ± 10%, max output impedance: 320Ω, max load current: 25mA			

Note [1]: Accuracy applies to 4-wire probes. For 3-wire probes add 10mΩ, for 2-wire probes add 50mΩ

Pressure Technical Specifications

Specifications	
Pressure resolution	4, 5, or 6 digit resolution (user selectable)
Measurement Units^[1]	kPa, Pa, GPa, MPa, mPa, uPa, hPa, bar, mbar, torr, mtorr, atm, psi, psia, psig, gf/cm2, kgf/cm2, inH2O@4°C, inH2O@68°F, mmH2O@4°C, mmH2O@20°C, ftH2O@4°C, ftH2O@68°F, inHg@0°C, mmHg@0°C, lb/ft2, tsi, psf, inH2O@60°F, ftH2O@60°F, cmH2O@4°C, mH2O@4°C, cmHg@0°C, mHg@0°C, kgf/m2
Temperature Compensation	-10°C~50 °C
Pressure Module Type	Built-in digital pressure module: ADT158Ex, for more detailed information, please see ADT 158Ex datasheet. External digital pressure module: ADT161Ex, for more detailed information, please see ADT 161Ex datasheet.
Specifications	Refer to the technical specification of the ADT158Ex and ADT161Ex.
High Static Pressure and Differential Pressure Synthesis Index^[2]	Two modules must be with the same range; Typical Differential pressure accuracy of 0.002%FS or 0.02%RD, whichever is greater when using two 0.02%FS external modules. Typical Differential pressure accuracy of 0.002%FS or 0.05%RD, whichever is greater when using two 0.05%FS external modules.

[1] Available units are dependent on the overall pressure range.

[2] For more explanation, please reference application note "Achieving High Accuracy for High Static Differential Pressure Measurements"

Pressure Ranges

Gauge Pressure ^[1]					
P/N	Pressure Range		Media	Accuracy (%FS)	Burst Pressure
	(psi)	(bar)	Gas/Liquid		
V15	-15	-1.0	G	0.02	3x
GP2	2	0.16	G	0.05	3x
GP5	5	0.35	G	0.05	3x
GP10	10	0.7	G	0.02	3x
GP15	15	1.0	G	0.02	3x
GP30	30	2.0	G	0.02	3x
GP50	50	3.5	G, L	0.02	3x
GP100	100	7.0	G, L	0.02	3x
GP150	150	10	G, L	0.02	3x
GP300	300	20	G, L	0.02	3x
GP500	500	35	G, L	0.02	3x
GP600	600	40	G, L	0.02	3x
GP1K	1,000	70	G, L	0.02	3x
GP1.5K	1,500	100	G, L	0.02	3x
GP2K	2,000	140	G, L	0.02	3x
GP3K	3,000	200	G, L	0.02	3x
GP5K	5,000	350	G, L	0.02	3x
GP10K	10,000	700	G, L	0.02	2x
GP15K	15,000	1,000	G, L	0.05	2x
GP20K	20,000	1,400	G, L	0.05	1.5x
GP25K	25,000	1,600	G, L	0.05	1.5x
GP30K	30,000	2,000	G, L	0.05	1.5x
GP36K	36,000	2,500	G, L	0.05	1.5x
GP40K	40,000	2,800	G, L	0.05	1.35x
GP50K	50,000	3,500	G, L	0.1	1.2x
GP60K	60,000	4,200	G, L	0.1	1.1x


^[1] Sealed gauge pressure for above 70 bar (1000 psi)

Pressure Ranges

Compound Pressure						
P/N	Pressure Range		Media	Accuracy	Pressure Rating	
	(psi)	(bar)	Gas/Flüssigkeit		Burst	Over Pressure
CP2	±2	±0.16	G	0.05% FS	3x	1.2x
CP5	±5	±0.35	G	0.02% FS	3x	1.2x
CP10	±10	±0.7	G	0.02% FS	3x	1.2x
CP15	±15	±1.0	G	0.02% FS	3x	1.2x
CP30	-15 bis 30	-1 bis 2.0	G	0.02% FS	3x	1.2x
CP50	-15 bis 50	-1 bis 3.5	G	0.02% FS	3x	1.2x
CP100	-15 bis 100	-1 bis 7.0	G. L	0.02% FS	3x	1.2x
CP300	-15 bis 300	-1 bis 20	G. L	0.02% FS	3x	1.2x
CP500	-15 bis 500	-1 bis 35	G. L	0.02% FS	3x	1.2x
CP600	-15 bis 600	-1 bis 40	G. L	0.02% FS	3x	1.2x
CP1K	-15 bis 1,000	-1 bis 70	G. L	0.02% FS	3x	1.2x
CP2K	-15 bis 2,000	-1 bis 140	G. L	0.02% FS	3x	1.2x
CP3K	-15 bis 3,000	-1 bis 200	G. L	0.02% FS	3x	1.2x
CP5K	-15 bis 5,000	-1 bis 350	G. L	0.02% FS	3x	1.2x
CP10K	-15 bis 10,000	-1 bis 700	G. L	0.02% FS	2x	1.2x

Ordering Information

Model

ADT 260Ex	GP300	PSI	N
	Pressure Range P/N: See pressure range tables above	Range type: PSI - range by psi BAR - range by bar	Pressure Port Type
		← ADT260Ex with AM1602 temperature probe	N -1/4NPT male N2 -1/2NPT male B -1/4BSP male B2 -1/2BSP male M-M20X1.5 male AF -Autoclave F-250-C female AM -Autoclave M-250-D male

Note: The ADT260Ex can be purchased without the ADT158Ex module. If needed using the following part number: ADT260EX-NO

Accessories

Accessories (included)		
Modell	Beschreibung	Menge
9811EX-Xx	110V/220V external power adapter	1 pc
9704Ex	Chargeable Li-ion battery	1 pc
9021	Test leads	5 sets (10 pcs)
9040	Hanging strap with magnet	1 pc
9052Ex	Ex USB Cable type A to type C (For Ex models only)	1pc
	ISO 17025 accredited calibration certificate (DAkkS on demand)	1 pc
Optional Accessories		
Model	Description	
ADT 158Ex	Built-in digital pressure module (see ADT158Ex datasheet)	
ADT 161Ex	External digital pressure module (see ADT161 datasheet)	
AM1602-6FT	Class A, PT100/385 Industrial RTD, -40°C to 160°C, 3/16 (4.76mm) inch x 2 inch (50 mm) with 6 foot (1.8 Meters) cable w/banana jack connectors	
AM1602-15FT	Class A, PT100/385 Industrial RTD, -40°C to 160°C, 3/16 (4.76mm) inch x 2 inch (50 mm) with 15 foot (4.5 Meters) cable w/banana jack connectors	
AM1602-30FT	Class A, PT100/385 Industrial RTD, -40°C to 160°C, 3/16 (4.76mm) inch x 2 inch (50 mm) with 30 foot (9 Meters) cable w/banana jack connectors	
AM1602-60FT	Class A, PT100/385 Industrial RTD, -40°C to 160°C, 3/16 (4.76mm) inch x 2 inch (50 mm) with 60 foot (18.2 meters) cable w/banana jack connectors	
AM1602-100FT [1]	Class A, PT100/385 Industrial RTD, -40°C to 160°C, 3/16 (4.76mm) inch x 2 inch (50 mm) with 100 foot (30.5 meters) cable w/banana jack connectors	
9060	Pressure module connection cable	
9905	Hard carrying case for handheld calibrators and readouts with space for two RTDs	
9918-SC	Soft carrying case, with space for handheld instrument, test leads, and accessories	
9530-BASIC	Additel/Acal Automated calibration software with asset management, basic version	
9530-NET	Additel/Acal Automated calibration software with asset management, network version, Includes server installation and 1 user license	

Note: [1] For custom RTD cable lengths over 30 meters (100 feet), which will adhere to Class B, please contact Additel



ADT 161Ex pressure modules
See ADT161 Datasheet for more infot

ADT 158Ex pressure module – for use with ADT 260Ex (bottom mount)

