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Additel 260Ex
Handheld Multichannel Reference Recorder

- **Up to 8 measurement channels**
- **Intrinsically safe**
- **Field Switchable Pressure Module**
- 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

Additel 260Ex with ADT158Ex module

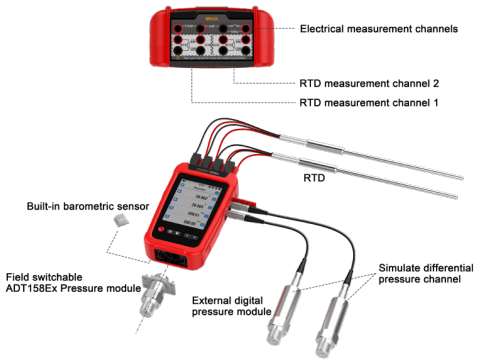
OVERVIEW

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.



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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, ϕ4mm 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	±55Pa
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 *Temperature coefficient: ±5 ppm FS/°C (-20 to -10)°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 to +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	IIsolate USB-TYPEC (slave), Bluetooth
Display	4.4-inch color display capacitive screen, transflective, with LED backlight
Size	6.97" x 4.13" x 2.04" (177 mm x 105 mm x 52 mm) which does not include the bottom mount ADT158Ex if installed.
Weight	1.65 lb (0.75 kg)
Warranty Time	1 year

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Electrical Specifications

Specification	Range	Accuracy	Resolution	Note
RTD Measurement Accuracy	0~400 Ω	0.01%RDG + 20 mΩ[1]	1 mΩ	Excitation current: 1 mA
Voltage Measurement	±300 mV	0.015%RDG + 1.5 mV	1 uV	Impedance: >100 MΩ
	±30 V	0.015%RDG + 1.5 μA	0.1 mV	Impedance: >1 MΩ
Current Measurement	±30 mA	0.015%RDG + 1.5 μA	0.1 uA	Impedance: < 40 Ω
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: 2.5 V			
Loop Power	22 V ± 10%, max output impedance: 320 Ω, max load current: 25 mA			

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

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 (psi)	Pressure Range (bar)	Media [2]	Accuracy (%FS)	Burst Pressure
V15	-15	-1.0	G	0.02	3×
GP2	2	0.16	G	0.05	3×
GP5	5	0.35	G	0.05	3×
GP10	10	0.7	G	0.02	3×
GP15	15	1.0	G	0.02	3×
GP30	30	2.0	G	0.02	3×
GP50	50	3.5	G , L	0.02	3×
GP100	100	7.0	G , L	0.02	3×
GP150	150	10	G , L	0.02	3×
GP300	300	20	G , L	0.02	3×
GP500	500	35	G , L	0.02	3×
GP600	600	40	G , L	0.02	3×
GP1K	1,000	70	G , L	0.02	3×
GP1.5K	1,500	100	G , L	0.02	3×
GP2K	2,000	140	G , L	0.02	3×
GP3K	3,000	200	G , L	0.02	3×
GP5K	5,000	350	G , L	0.02	3×
GP10K	10,000	700	G , L	0.02	2×
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

Compound Pressure

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

[1] Sealed gauge pressure for above 1000 psi
[2] G=Gas, L=Liquid

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ORDERING INFORMATION

Model Number

ADT260EX — 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:
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-C male

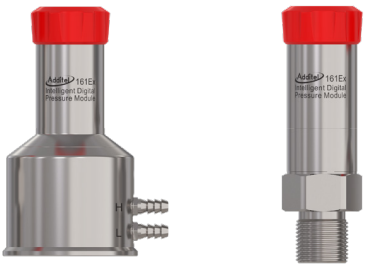
Note: The ADT260Ex can be purchased without the ADT158Ex module
If needed using the following part numner:
ADT260EX-NO

ADT260Ex with AM1602 temperature probe

Accessories (included)		
Model number	**Description**	**QTY**
9811Ex-X	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)	1 pc
	ISO 17025 accredited calibration certificate	1 pc

Optional Accessories	
Model number	**Description**
ADT158Ex	Built-in digital pressure module (see ADT158Ex datasheet)
ADT161Ex	External digital pressure module (see ADT161 datasheet)
AM1602-6FT	Class A, PT100/385 Industrial RTD, -40°C to 160°C, 3/16 (4.76 mm) 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 (4.76 mm) 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 (4.76 mm) 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 (4.76 mm) 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 (4.76 mm) 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
9073	Lemo connector, male, non-programmable (for use with 9083 and ADT260EX for temp probe)
9083	Adapter from Lemo to banana jacks for ADT260EX temp measurement
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 100 feet (30 meters), which will adhere to Class B, please contact Additel.



"ADT161Ex pressure modules - See ADT161 Datasheet for more info"

"ADT158Ex pressure module - for use with ADT260Ex (bottom mount)"

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