IntelleX[™] Ultra Fast Pressure Gauge

The IntelleX[™] ultra fast pressure gauge is a highly flexible, ultra-fast sampling, pressure, temperature and acceleration tool ideal for monitoring extremely fast pressure transients in downhole explosive environments.

The ultra fast pressure gauge is a fusion of new and proven technologies resulting in a much more flexible tool than standard pressure gauges. The tool is capable of performing traditional slow speed pressure gauge functions as well as ultra fast sampling when required.

The tool can be programmed with any combination of sample rates and 'trigger events' with the tool altering the sampling rate depending on the trigger pressure or acceleration. As soon as the tool detects a trigger event it will move to ultra-fast sampling mode within 100us.

The number of trigger events is limited only by the available tool memory (up to 8 megabytes). For example, the standard tool can record 10 days of standard data at 2 sec/sample with an additional 10 trigger events recording up to 5 seconds of ultra fast data (40,000 samples/sec) per event.

IntelleX TUltra Fast Pressure Gage

Specifications

Outside Diameter	1.0"	25.4 mm	
Length (standard)	175 ft	0.53 m	
Weight	5 lbs	2.26 kg	
Housing	17-4PH (Standard) or NACE MR-01-75 Compatible		
Maximum pressure	15,000 psi	103.4MPa	
Extended	20,000 psi	137.9MPa	
Stability	<+/- 0.3% FS per 3 i	<+/- 0.3% FS per 3 months	
Resolution	0.01 psi at 10,000 psi and 1 sample/sec		
	0.15 psi at 10,000 psi and 40,000 samples/sec		
Maximum temperature	150°C	300°F	
Resolution	0.01°C at 150°C and 1 sample/sec		
	0.15°C at 150°C and 1,250 samples/sec		
Memory capacity	8MB standard (1.4	8MB standard (1.4 million data points)	
Pressure	<+/-0.05% FS < 150°C		
	<+/-0.10% FS < 175°C		
Temperature	<+/- 0.5°C		
Acceleration Range	+/- 250g		
Resolution	< 0.2g		
Top / Bottom Connection	3/4" UNF (1/2" Suck	3/4" UNF (1/2" Sucker Rod)	
Power requirements	2 x 'AA' Lithium Batteries, 1.6 Ahr, 6-8 Vdc		
	(>20 days' operation from a single battery @ 1 sec)		
	(>2 days' operation from a single battery @ 40k)		
Drift	<+/- 0.1% per 6 mor	<+/- 0.1% per 6 months	
Shock	>500 g	>500 g	
Vibration	>10g. 10Hz-2kHz	>10g. 10Hz-2kHz	

Sampling Modes

- Slow: 30 min/sample to 32 samples/sec (all channels)
- Intermediate: 10 to 1250 samples/sec (all channels)
- Ultra Fast: 40,000 samples/sec (pressure) 2,500 samples/sec (Temp & Accel)

Related Products

- Peli Carry Case (up to 2 tools)
- USB interface
- Software
- Operating Manuals

Features

- Slim 1" O.D. and short length (<2ft)
- Extends number of applications where tool can be run. Reduces size and therefore cost of gauge carrier for TCP / DST type applications.
- High operating pressure and temperature
- Reduces power consumption and battery cost
- Very large non-volatile flash memory
- Ensures no data loss in the event of battery disconnection, depletion or premature failure. Allows multiple transient events to be recorded in a single run
- Simple to use software (Windows XP/Vista compatible) with USB connection to tool
- No external interfaces required allowing simple programming and data retrieval with fast USB upload

