

Addressable Pressure Transducer

Introduction

The Monitronix 882APT is an addressable pressure transducer designed specifically as a direct replacement and interchangeability with existing Lancier and Nicotra "Euro" protocol (time slot) pressure transducers such as Lancier PtxA 210 and Nicotra TP204M. The 882 transducer can be monitored by existing Lancier and Nicotra monitoring systems or by the new Monitronix 800/815/816/817 series systems.



Features

- High resolution and accuracy
- Solid state Absolute pressure sensor
- Jumper address setting without a transducer tester
- Hardware address setting and calibration
- Ultra compact

Description

The 882APT is an advanced addressable pressure transducer using an ultra low power embedded micro-controller. It is designed specifically as a direct replacement for existing Lancier and Nicotra "Euro" protocol (time slot) pressure transducers such as Lancier PtxA210 and Nicotra TP204M. The 882APT transducer can be monitored by existing Lancier and Nicotra monitoring systems. It can also be monitored by the new Monitronix 800/815/816/817 series systems. Like the transducers it replaces, the 882APT uses a 7 bit binary address allowing up to 127 devices on the same pair. Jumper address setting permits the device to be applied conveniently without a tester. Ultra-low quiescent power consumption (50 uA typical) allows this transducer to operate at distances of up to 100 Km (depending on pair gauge and number of installed devices on the same pair). Hardware address setting and calibration ensures that address and calibration can never be altered accidentally.

Technical Characteristics

Pair Requirements

Pair RC	
(loop resistance x capacitance)	60 milliseconds max
Pair loop resistance	14000 ohms max
Pair insulation	
(leg to leg and leg to earth)	10 Megohms minimum

Environmental

Temperature – continuous operation	-20° to +60° C
Transportation and storage	-40° to +70° C
Relative humidity	0 to 95% non-condensing

Device Parameters

Resolution	0.5% of span
Accuracy	+/- 1% of span
Measurement range	950 – 1900 Mbar absolute
Over-pressure	2000 Mbar max
Surge protection	Ultra-fast Solid state (Tranzorb)
Size	86 x 23 x 16 mm
Protocol	Time slot, 750-2000Hz current ripple response
Power feed	50 VDC balanced (system supplied)
Current draw	<60uA (quiescent) 1.2mA (active)

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