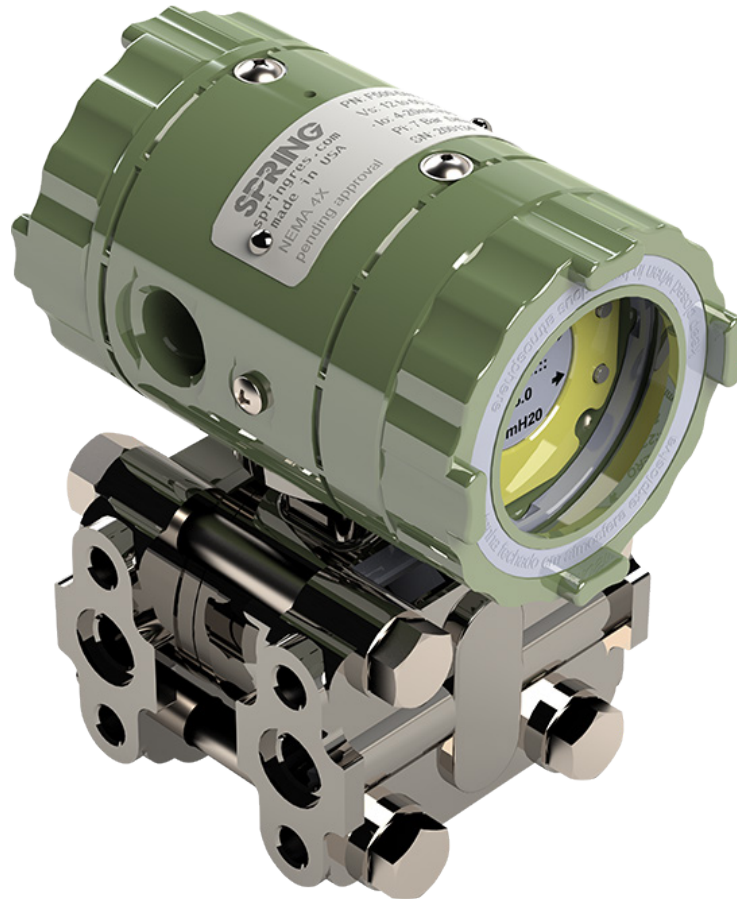

914D

Differential Pressure Transmitter



Features

- Capacitance based differential pressure transmitter.
- Low maintenance, quick calibration and configuration.
- Installation directly into pressurized vessels.
- HART technology provides ease of setup and diagnostics during operation.
- Pressure port for thread 1/4 "NPT or 1/2" NPT adapter.
- Pressure measurement from 20mbar to 200bar;

Summary

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Reliable and easy installation



Direct installation on top or connecting vessel.



Installations in communicating vessels.



Installations in communicating vessels.

Principle of operation

The capacitive pressure sensor allows the reading of differential pressures between two differential sources. By means of an oscillator connected to the capacitors the frequency reading is made without the need for A/D converters, resulting in high precision and repeatability.

The mechanical construction of this sensor offer a predictable behavior when there are changes in the static pressure and or temperature of the process, allowing for methods of compensation.

Sensor Benefits

Installation with NPT threads or high pressure adapters.

Measurement of product pressure and can be used with remote seal.

Suitable for aggressive products; vapors, gases and liquids.

Requires minimal maintenance and cleaning of pressure sensors.

System of compensation, facilitating the maintenance of the user.

Ideal for pressurized tanks and or process equipment.

Characteristics

Reliability

Standard HART with more than 30 years of experience in the field.

CPU 16 BITS for fast processing of real-time signals.

Pressure reading with good immunity to changes in process conditions.

Good operation where other measurement technologies have instabilities.

Flexibility

Mounting directly to the tank, or by means of a remote seal.

Pressurized tanks with liquids, vapors and corrosive gases.

Sensors made of 316SST, Hastelloy 276 and Monel 400 for several products applications.

Diagnostics in pressurized environments without process interference.

Installation

Ease of handling of the adapter flanges.

Allows installation on pre-existing NPT connections in tanks.

Preconfigured in the factory, or via HART communicators.

HART 7 protocol ensures operation with control and monitoring systems.

Technological advancements

Minimized maintenance.

Robust and resistant to mechanical handling.

Configuration software with graphical interface for operational diagnostics.

Adjustments with process in operation.

Compensated for changes in the process.

Configuration tools available for computers, hand held tablet and cell phones.

Configurators with RS232 interface, USB and Wireless Bluetooth.

Bluetooth interface available for configuring hard to reach installations.

Configuration data can be saved, printed, or exported to spread sheet.

Technical specifications

General information	
Applications	Liquid products, gases and vapors
Principle of operation	Measurement by differential capacitors
Communication signal	4 to 20mA with HART protocol 7.0
Read Signal	Astable oscillator frequency between 200 and 2kHz.
Regulation	The 914D can be considered a non-intensional emitter
Operating Humidity	100% R.H.
Weather location	Not applicable
Response Time	Typical 0.2 Seconds
Display	Type TFT monochrome high contrast pixel
Configuration	Via local push buttons or HART communicators
Supply Voltage	12 to 50 Vdc, bi-directional transorb protection
Output signal	4 to 20mA with HART protocol
Accuracy	+/- 0.1% Reading
Resolution	+/- 0.01% Reading
Static pressure	1000 and 2000 psig dependent on operating range
Process connection	1/4" NPT, optional 1/2" NPT
Sealing ring	Viton, Teflon, Buna N
Process pressure	-150% to + 150% operating range.
Process temperature	-40 to 125 C
Room temperature	-40 to 75 C

Sales code

The 914D is versatile, offers quick installation and operation with proven technology that can be reconfigured in the field.

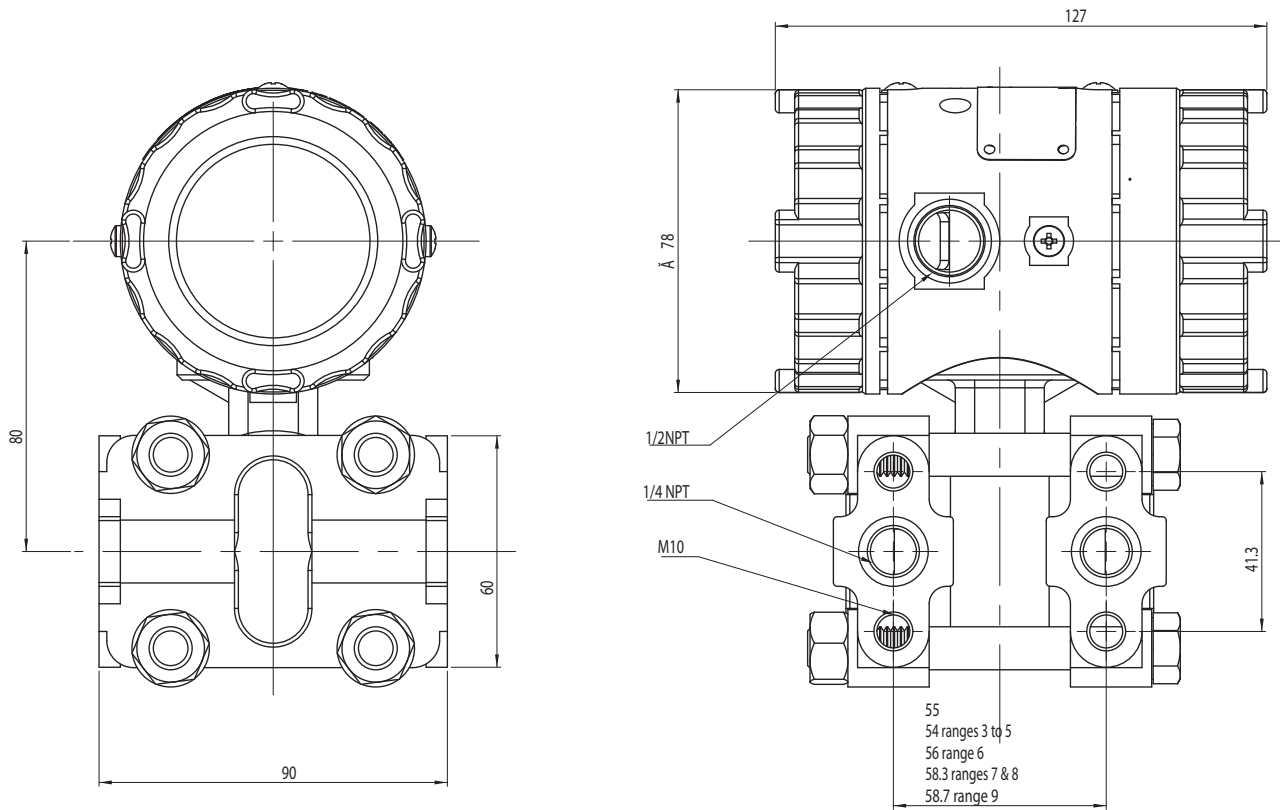
When selecting this product you should consider:

1. Great flexibility of applications with a variety of accessories and process connections, and several optional materials.
2. It has HART communication plus 4 to 20mA signal, which can be easily adapted for Profibus, Modbus, Bluetooth, and HART wireless.
3. The instrument can be pre-configured at the factory, or via HART communicators for greater flexibility during installation and maintenance.

914D	Differential Pressure Transmitter			
:	Communication protocol			
:	H	HART 7.0 - 4 to 20mA		
:	F	Fieldbus Foundation		
:	P	Profibus PA		
:	:	Working Range	Nominal Span	Minimum Span
:	:	3 Range 3	70 mbar	20 mbar
:	:	4 Range 4	400 mbar	50 mbar
:	:	5 Range 5	2 bar	250 mbar
:	:	6 Range 6	7 bar	700 mbar
:	:	7 Range 7	20 bar	2 bar
:	:	8 Range 8	70 bar	7 bar
:	:	9 Range 9	200 bar	20 bar
:	:	:	Sensor Diaphragm	
:	:	:	I	Stainless Steel - SS316L
:	:	:	H	Hastelloy C276
:	:	:	M	Monel 400
:	:	:	T	Tantalum
:	:	:	Z	Others
:	:	:	:	Sensor Filling Fluid
:	:	:	S	Silicone Oil
:	:	:	F	Oil fluorolube
:	:	:	H	Halocarbon oil
:	:	:	Z	Others
:	:	:	:	Sensor sealing ring
:	:	:	B	Buna N
:	:	:	V	Viton
:	:	:	T	Teflon

:	:	:	:	:	:	Electronic Enclosure				
:	:	:	:	:	:	A	Aluminum with powder coating			
:	:	:	:	:	:	I	Stainless steel SS303			
:	:	:	:	:	:	:	Electrical connection			
:	:	:	:	:	:	:	1	1/2 "- 14 NPT		
:	:	:	:	:	:	:	2	M20 x 1.5 mm		
:	:	:	:	:	:	:	:	Flanges		
:	:	:	:	:	:	:	I	Stainless steel 316 - CF8M		
:	:	:	:	:	:	:	H	Hastelloy C276		
:	:	:	:	:	:	:	M	Monel 400		
:	:	:	:	:	:	:	Z	Others		
:	:	:	:	:	:	:	:	Process connection		
:	:	:	:	:	:	:	0	1/4 "NPT		
:	:	:	:	:	:	:	1	1/2 "NPT with SS316 Adapter		
:	:	:	:	:	:	:	2	1/2 "NPT with Hastelloy C276 Adapter		
:	:	:	:	:	:	:	3	1/2 "NPT with Monel 400 Adapter		
:	:	:	:	:	:	:	Z	Others		
914D	H	3	I	S	B	A	1	I	1	

Mechanical dimensions



Electrical connections

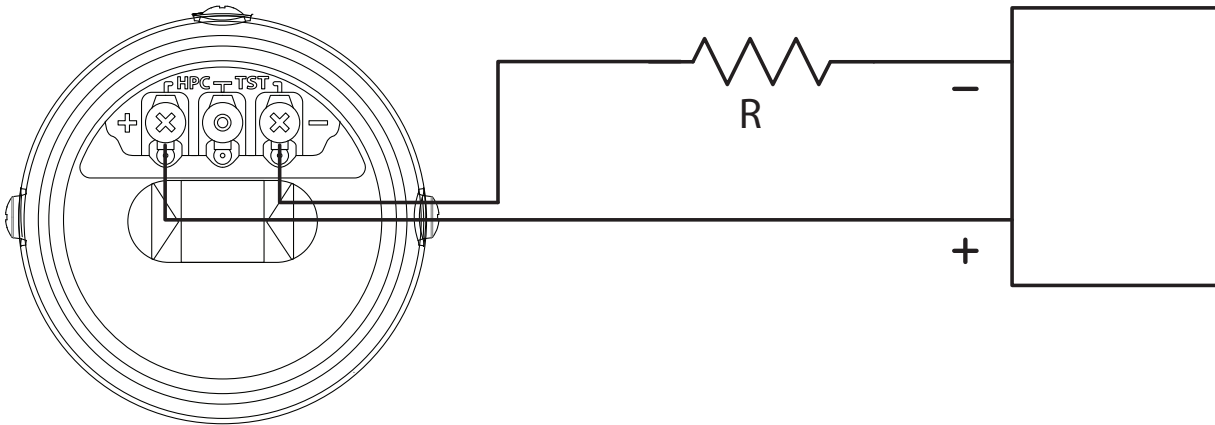


Fig. 1. - Connections with power supply.

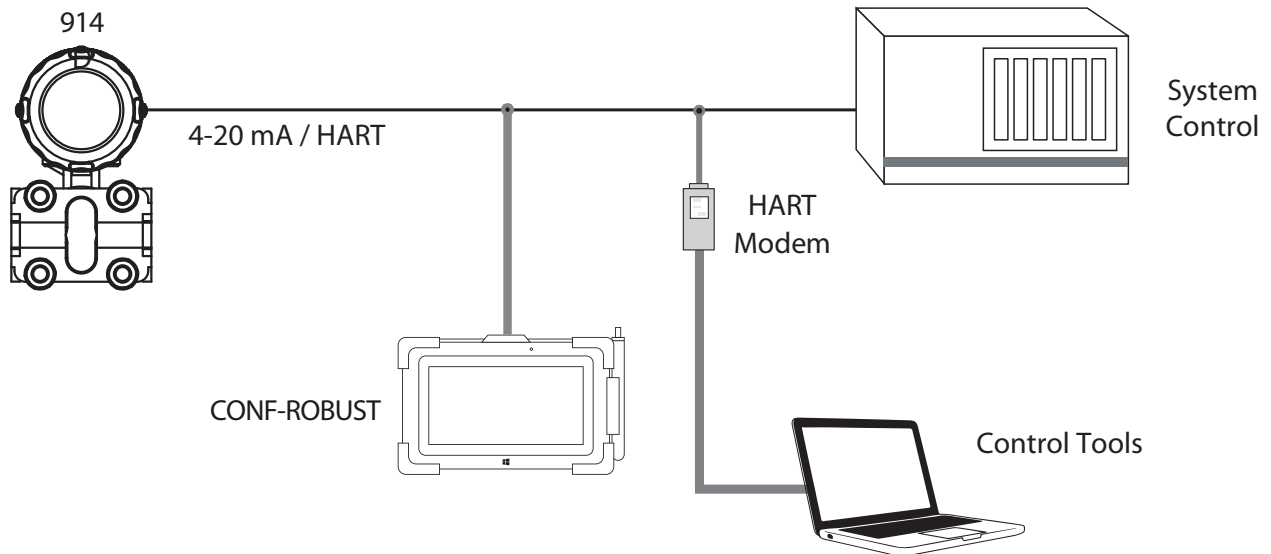


Fig. 2. - Connections for HART communication

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