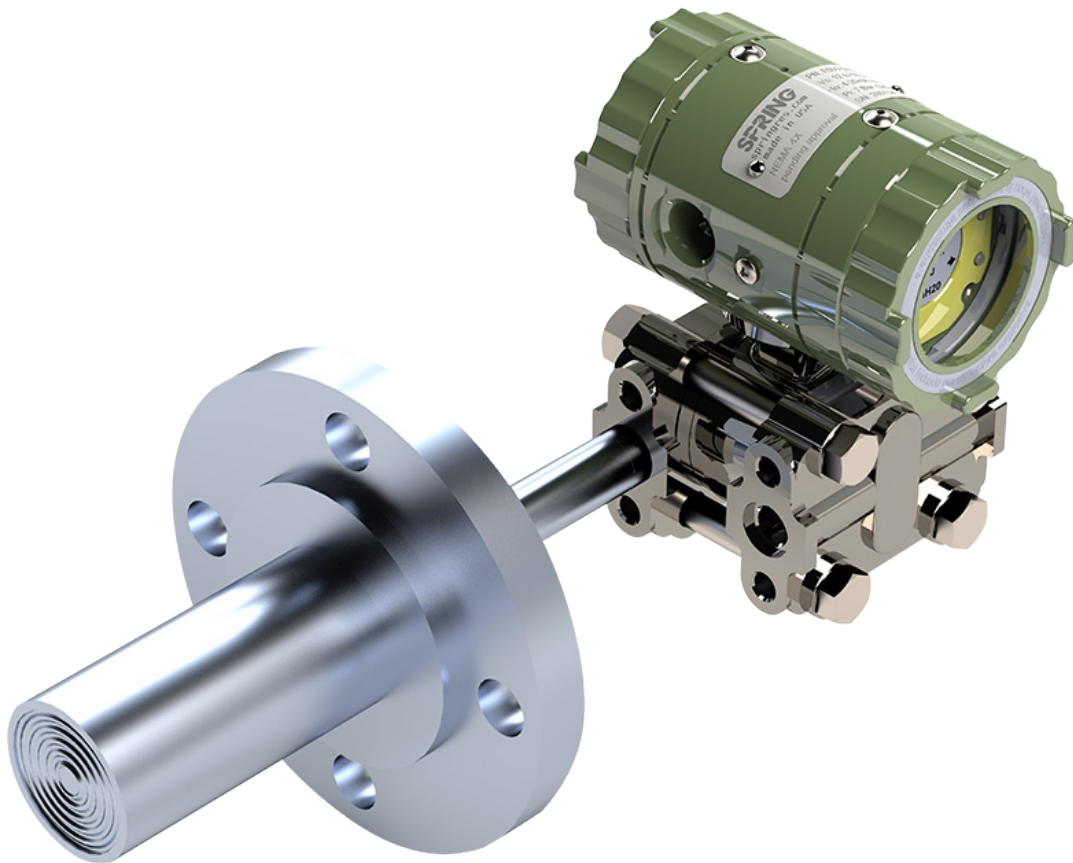

914L

Capacitive Level Transmitter



Features

- Capacitive level transmitter for liquids.
- Low maintenance, easy calibration and configuration.
- Easy installation directly into pressurized vessels.
- HART technology provides ease of setup and diagnostics during operation.
- Easy installation for DIN or ASME flanges.

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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 DIN or ASME flanges.

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 914L can be considered a non-intensional emitter
Operating Humidity	100% R.H.
Weather location	Not applicable
Response Time	Typical 0.2 Seconds
Display instrument	Type TFT monochrome high contrast pixel 0.127mm
Configuration	Via push buttons or HART communicators
Power supply voltage	12 to 50Vdc, bi-directional transorb protection
Exit sign	4 to 20mA with HART protocol
Accuracy	+/- 0.1% reading
Resolution	+/- 0.01% reading
Static pressure	Dependent on flange class
Process connection	DIN or ASME flanged bases
Process pressure	-150% to + 150% operating range.
Process temperature	-40 A 300 C depending on the selected option
Room temperature	-40 to 75 C

Sales code

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

When selecting this product you should consider:

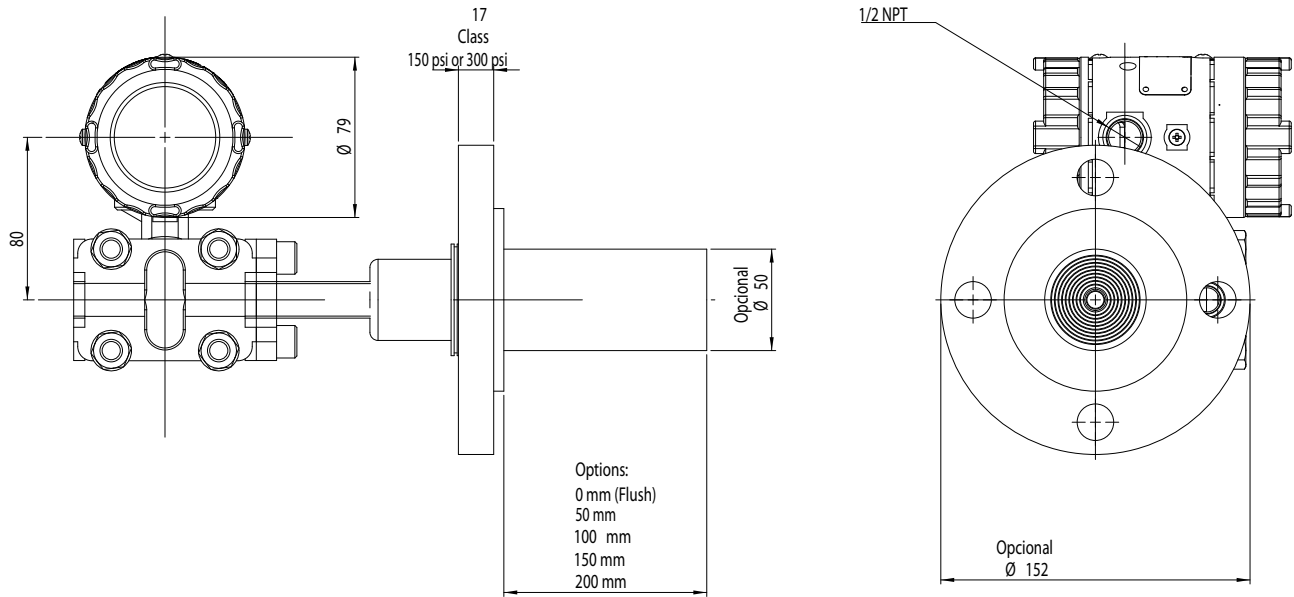
1. Great flexibility of applications with a variety of accessories and process connections, and several optional materials.
2. It has HART communication plus 4 to 20mA signal, which can be easily adapted for Profibus, Modbus, Bluetooth, and HART wireless.
3. The instrument can be pre-configured at the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

914L	Capacitive pressure transmitter and level			
:	Communication protocol			
:	H	HART 7.0 - 4 a 20mA		
:	F	Fieldbus foundation		
:	P	Profibus PA		
:	:	Working Range	Nominal Span	Minimum Span
:	:	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
:	:	:	Sensor Diaphragm	
:	:	:	I	Stainless Steel - SS316L
:	:	:	H	Hastelloy C276
:	:	:	M	Monel 400
:	:	:	T	Tantalum
:	:	:	Z	Others
:	:	:	:	Sensor Filling Fluid
:	:	:	S	Silicone oil
:	:	:	F	Fluorolube oil
:	:	:	H	Halocarbon oil
:	:	:	Z	Others
:	:	:	:	Sensor sealing ring
:	:	:	B	Buna N
:	:	:	V	Viton
:	:	:	T	Teflon
:	:	:	:	Electronic Enclosure
:	:	:	A	Aluminum with electrostatic paint (powder coating)
:	:	:	I	Stainless steel SS303

:	:	:	:	:	:	:	:	Electrical connection			
:	:	:	:	:	:	:	:	1	1/2"- 14 NPT		
:	:	:	:	:	:	:	:	2	M20 x 1.5 mm		
:	:	:	:	:	:	:	:	Flanges			
:	:	:	:	:	:	:	:	I	316 stainless steel - 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		
:	:	:	:	:	:	:	:	:	Connection to the process of the level plug (high side)		
:	:	:	:	:	:	:	:	T11	1" 150 # (ANSI B16.5)	T41	4" 150 # (ANSI B16.5)
:	:	:	:	:	:	:	:	T13	1" 300 # (ANSI B16.5)	T43	4" 300 # (ANSI B16.5)
:	:	:	:	:	:	:	:	T16	1" 600 # (ANSI B16.5)	T46	4" 600 # (ANSI B16.5)
:	:	:	:	:	:	:	:	T21	2" 150 # (ANSI B16.5)	TD2	DN25 PN 10/40
:	:	:	:	:	:	:	:	T23	2" 300 # (ANSI B16.5)	TD4	DN40 PN 10/40
:	:	:	:	:	:	:	:	T26	2" 600 # (ANSI B16.5)	TD5	DN50 PN 10/40
:	:	:	:	:	:	:	:	T31	3" 150 # (ANSI B16.5)	TD8	DN80 PN 10/40
:	:	:	:	:	:	:	:	T33	3" 300 # (ANSI B16.5)	TD1	DN100 PN 10/16
:	:	:	:	:	:	:	:	T36	3" 600 # (ANSI B16.5)	TZ	Others
:	:	:	:	:	:	:	:	:	Level plug flange material		
:	:	:	:	:	:	:	:	F304	304 stainless steel		
:	:	:	:	:	:	:	:	F316	316L stainless steel		
:	:	:	:	:	:	:	:	:	Length of plug extension		
:	:	:	:	:	:	:	:	E0	No extension		
:	:	:	:	:	:	:	:	E50	50 MM		
:	:	:	:	:	:	:	:	E100	100MM		
:	:	:	:	:	:	:	:	E150	150 MM		
:	:	:	:	:	:	:	:	E200	200 MM		
:	:	:	:	:	:	:	:	EZ	Others		
:	:	:	:	:	:	:	:	:	Level plug diaphragm material		
:	:	:	:	:	:	:	:	DI	316L stainless steel		
:	:	:	:	:	:	:	:	DH	Hastelloy C276		
:	:	:	:	:	:	:	:	DM	Monel 400		
:	:	:	:	:	:	:	:	DT	Tantalum		
:	:	:	:	:	:	:	:	DRH	Coating in find		
:	:	:	:	:	:	:	:	DRT	Coating in tefzel		

:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	Filling fluid level plug
:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	F704 Silicone DC704
:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	F200 Silicone DC200
:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	FN Neobee
:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	FZ Others
914L	H	3	I	S	B	A	1	I	1	T31	F304	E0	DI	F704	

Mechanical dimensions



Electrical connections

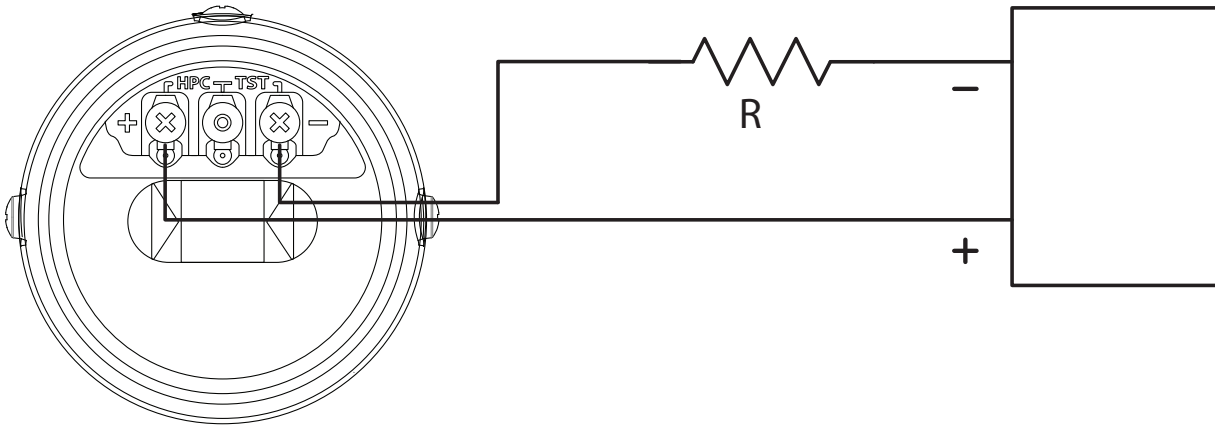


Fig. 1. - Connections with power supply.

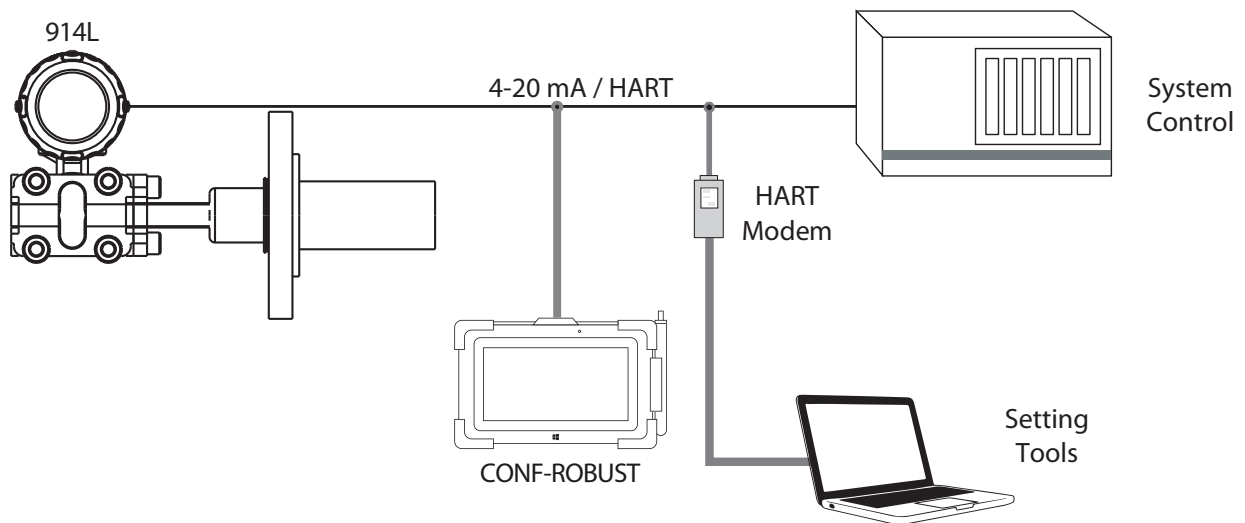


Fig. 2. - Connections for HART communication

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