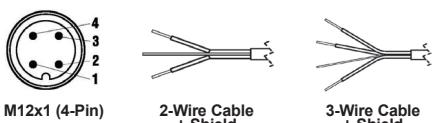


## 640 Series

Precision Heavy Duty  
Pressure Transmitter/Transducer



Current output, 2-wire

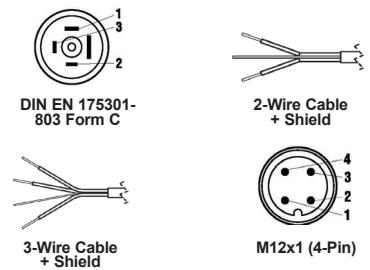
640 Series	4 mA to 20 mA	
CONNECTION TYPE (CODE)	V+	V-
M12 x 1, 4-Pin (25)	1	3
Integral Cable (1)	Brown	Blue

Voltage output, 3-wire

640 Series	0-5 Vdc, 0-10 Vdc, 0-20 mA		
CONNECTION TYPE (CODE)	V+	COMMON	OUTPUT
M12 x 1, 4-Pin (25)	1	3	4
Integral Cable (1)	Brown	Blue	Black

## 660 Series

High Performance Micro-Size  
Pressure Transmitter/Transducer



Current output, 2-wire

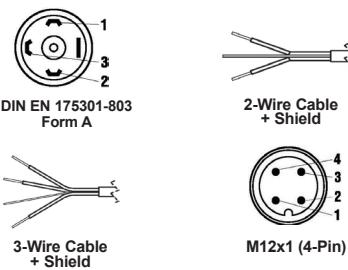
660 Series	4 mA to 20 mA	
CONNECTION TYPE (CODE)	V+	V-
DIN EN 175301-803 Form C (7)	1	2
DIN EN 175301-803 Form C w/ Cable (1)	Red	Black
M12 x 1, 4-Pin (25)	1	3
Integral Cable (36)	Brown	Green

Voltage output, 3-wire

660 Series	1-5 Vdc, 0.1-10 Vdc		
CONNECTION TYPE (CODE)	V+	COMMON	OUTPUT
DIN EN 175301-803 Form C (7)	1	2	3
DIN EN 175301-803 Form C w/ Cable (1)	Red	Black	White
M12 x 1, 4-Pin (25)	1	3	4
Integral Cable (36)	Brown	Green	White

## 800 Series

Platinum Resistance  
Temperature Transmitter/Transducer



Current output, 2-wire

800 Series	4 mA to 20 mA	
CONNECTION TYPE (CODE)	V+	V-
DIN EN 175301-803 Form A (8 or 14)	1	2
DIN EN 175301-803 Form A w/ Cable (1)	Red	Black
M12 x 1, 4-Pin (25)	1	3

Voltage output, 3-wire

800 Series	0-10 Vdc		
CONNECTION TYPE (CODE)	V+	COMMON	OUTPUT
DIN EN 175301-803 Form A (8 or 14)	1	2	3
DIN EN 175301-803 Form A w/ Cable (1)	Red	Black	White
M12 x 1, 4-Pin (25)	1	3	4

## 810 Series

Compact Temperature Transmitter

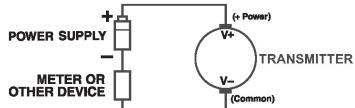


Current output, 2-wire

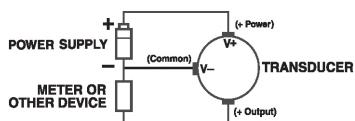
810 Series	4 mA to 20 mA	
CONNECTION TYPE (CODE)	V+	V-
M12 x 1, 4-Pin (25)	1	3

## Electrical Installation:

### 4 mA to 20 mA Output



### 3-Wire Voltage Output



**V+** = Supply Voltage  
**V-** = 4 mA to 20 mA Signal  
**Output** = Voltage Output Signal  
**Common** = Supply Voltage Return/Ground

## Load Limitations:

4 mA to 20 mA Output Only

$V_{min} = 10V + (.020 \times RL)$

$RL = RS + RW$

$RL$  = Loop Resistance (ohms)

$RS$  = Sense Resistance (ohms)

$RW$  = Wire Resistance (ohms)

## Load Limitations (612 & 613 Only):

4 mA to 20 mA Output Only

$V_{min} = [10V + (.020 \times RL)] - RC$

$RL = RS + RW$

$RL$  = Loop Resistance (ohms)

$RS$  = Sense Resistance (ohms)

$RW$  = Wire Resistance (ohms)

$RC = 0.0435 \frac{\Omega}{ft} \times \text{cable length (ft.)}$

## Installation Information:

NOSHOK pressure & temperature transmitters/transducers may be mounted in any plane with negligible effect on performance. Although these units are designed and manufactured to withstand substantial shock and vibration, it is recommended that they be mounted in an area of minimal vibration. Always use a wrench on the wrench flats when installing. NEVER use a pipe wrench on the housing or in the area of the electrical connection.

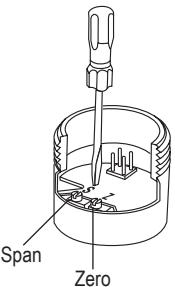
## Maintenance/Calibration:

NOSHOK pressure and temperature transmitters/transducers require no maintenance. Recalibration is dependent on the users Quality Assurance Program. If no program is in place, NOSHOK recommends a 1 year cycle.

## Alignment Procedure (applies only to 640 series):

Using a pressure source and meter with adequate accuracy, perform the following steps:

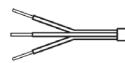
- Open sensor
- With no pressure applied, adjust the "Z" potentiometer for the correct Zero output
- Apply the correct full scale pressure to the unit
- Adjust the "S" potentiometer for the correct Span output



## Transmitters/Transducers Wiring Diagrams

### 612 & 613 Series

#### Submersible Level Transmitter/Transducer



2-Wire Cable  
+ Case Ground



3-Wire Cable  
+ Case Ground

NOTE: Vent tube included for atmospheric compensation.

#### Current output, 2-wire

612 & 613 Series	4 mA to 20 mA		
CONNECTION TYPE (CODE)	V+	V-	CASE GROUND
PUR Cable	Brown	Green	Gray
FEP Cable	Brown	White	Blue
PVC Cable	Red	Black	Bare

#### Voltage output, 3-wire

612 & 613 Series	0-5 Vdc, 0-10 Vdc, 0.5 to 2.5 Vdc			
CONNECTION TYPE (CODE)	V+	COMMON	OUTPUT	CASE GROUND
PUR Cable	Brown	Green	White	Gray
FEP Cable	Brown	Green	White	Gray

