



## TRANSDUCERS

- Three new models – NT100, NT40 and the NT25, an industry first
- Basic to highly customized models
- Hydraulic and pneumatic designs
- Three models with accuracy ranges of 1%, .4% and .25%
- Vacuum ranges to 10,000 PSI
- IP69K seal available for the NT25, enabling high pressure wash down capability
- Compact designs
- Custom outputs and ranges available
- Multiple industry applications



### Features

- Vacuum to 10,000 PSI range
- Various outputs
- Compact design
- 316 stainless steel wetted parts
- Low cost
- Industrial 1% accuracy
- Custom outputs and ranges available
- OEM tested and approved

### Application

- Hydraulic/mobile hydraulic
- Pneumatic systems
- Food and beverage industry
- Refrigeration systems
- Pumps and compressors
- Energy and water management
- Construction and agricultural equipment

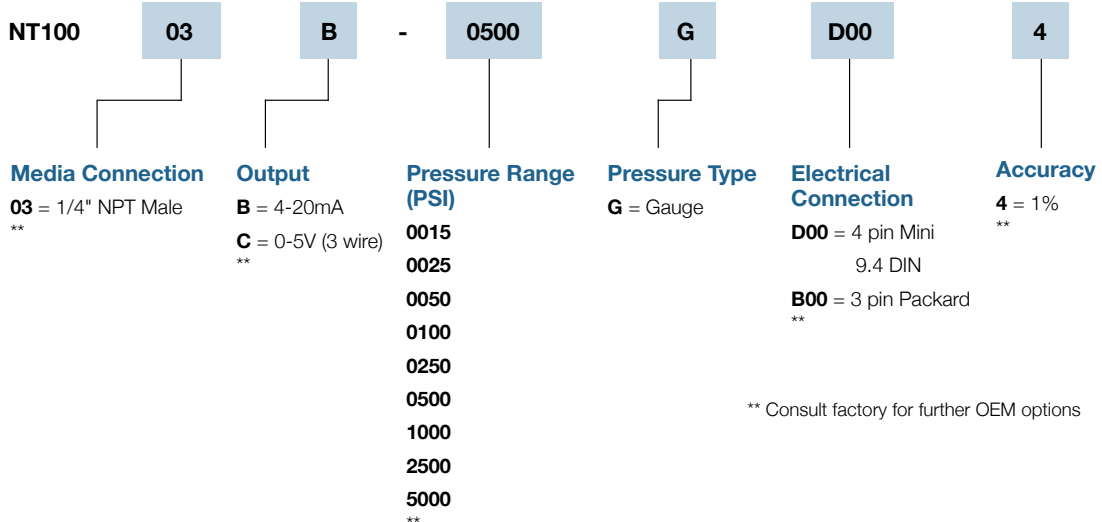
### Description

The NT100 Series Pressure Transducer utilizes piezoresistance technology in an all stainless steel body. It is compact in size, has long term stability, is easy to install, and is very economical, as well as reliable.

The NT100 sets a new price-performance standard for low cost, high volume commercial and industrial applications.

### How to Order (Example: Part Number: **NT100-03-B-0500-G-D00-4**)

#### Model



\*\* Consult factory for further OEM options

**Specifications**

**Input**

Supply Voltage	12-36 VDC
Pressure Range	VAC to 10,000 PSI
Proof Pressure	1.5 x full scale
Burst Pressure	3 x full scale
Fatigue Life	More than 4 million cycles

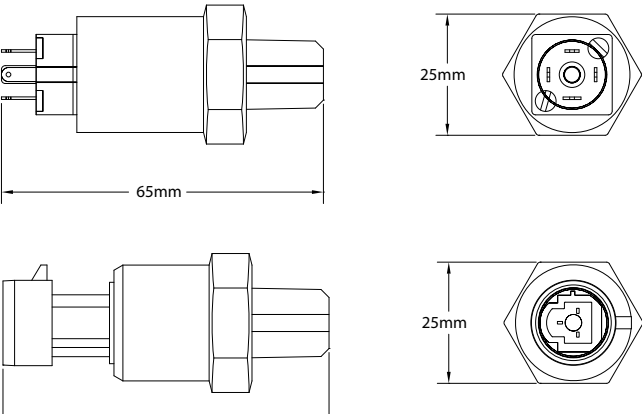
**Performance**

Accuracy	1%
Stability	0.2% full scale
Compensated Temperatures	-10 to 75°C (14 to 167°F)
Operating Temperatures	-20 to 80°C (-4 to 176°F)
Zero and Span Offset Tolerance	1.5%

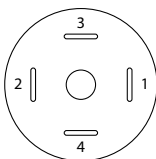
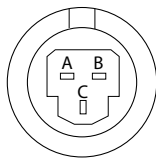
**Mechanical Configuration**

Pressure Port	1/4 NPT (standard) *
Electrical Connection	9.4 mini DIN, 3 pin Packard *
Sealing Rating	IP65 with standard 9.4 DIN cable
Wetted Parts	316 stainless steel

For best performance, use shielded cables. Mating cable assemblies sold separately. \* Consult factory for further OEM options.



**Electrical Connections**

Signal	Function	Color	Pin	Electrical Connector
0-5V	Supply V +	Red	1	<b>DIN 4 pin (9.4)</b> 
	Com	Black	2	
	Output	White	3	
	N/A	N/A	4	
4-20mA	Supply V	Red	1	
	Output	Black	2	
0-5V	Com	-	A	<b>3 pin Packard</b> 
	Supply +	-	B	
	Output +	-	C	
4-20mA	Output	-	A	
	Supply +	-	B	



### Features

- Vacuum to 10,000 PSI range
- Various outputs
- Compact design
- 316 stainless steel wetted parts
- Low cost
- Better 0.4% accuracy
- Custom outputs and ranges available
- OEM tested and approved

### Application

- Hydraulic/mobile hydraulic
- Pneumatic systems
- Food and beverage Industry
- Refrigeration systems
- Pumps and compressors
- Energy and water management
- Construction and agricultural equipment

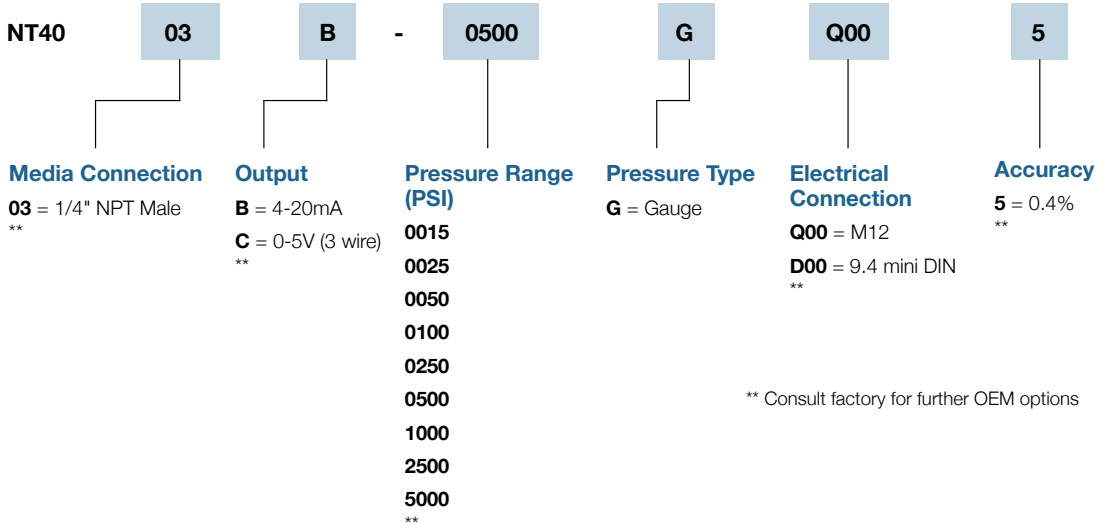
### Description

The NT40 Series Pressure Transducer utilizes piezoresistance technology in an all stainless steel body. It is compact in size, has long term stability, is easy to install, and is very economical, as well as reliable.

The NT40 sets a new price-performance standard for low cost, high volume commercial and industrial applications.

### How to Order (Example: Part Number: **NT40-03-B-0500-G-Q00-5**)

#### Model



\*\* Consult factory for further OEM options

## Specifications

### Input

Supply Voltage	12-36 VDC
Pressure Range	VAC to 10,000 PSI
Proof Pressure	1.5 x full scale
Burst Pressure	3 x full scale
Fatigue Life	More than 4 million cycles

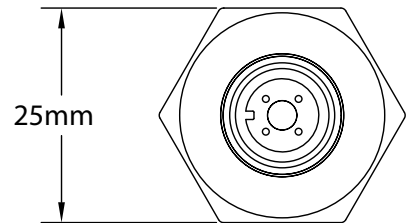
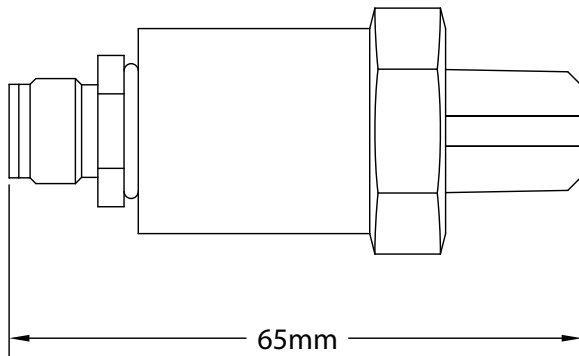
### Performance

Accuracy	0.4%
Stability	0.2% full scale
Compensated Temperatures	-10 to 75°C (14 to 167°F)
Operating Temperatures	-20 to 80°C (-4 to 176°F)
Zero and Span Offset Tolerance	1.5%

### Mechanical Configuration

Pressure Port	1/4 NPT (standard) *
Electrical Connection	M12 *
Sealing Rating	IP67 when used with M12 cable
Wetted Parts	316 stainless steel

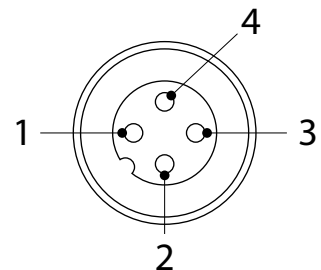
For best performance, use shielded cables. Mating cable assemblies sold separately. \* = Consult factory for further OEM options



## Electrical Connections

### NT40 M12 pin assignments

Voltage outputs	4-20mA output
pin 1 = Voltage Supply +	pin 1 = Voltage Supply +
pin 2 = Output	pin 2 = N/C
pin 3 = Com	pin 3 = Output
pin 4 = N/C	pin 4 = N/C





## Features

- Totally digital proprietary design
- Innovative redundant sensing elements
- 24V digital output for pressure or temp switch point
- Voltage and current outputs
- Custom pressure Ranges and outputs available
- More standard pressure ranges, industry first
- Optional 4x over pressure (on most ranges)
- 0.25% accuracy
- ASIC technology, no zero/span potentiometers
- All stainless steel welded housing
- IP-69K rated seal available (high pressure wash down)
- Innovative low current consumption, ideal for custom wireless solutions
- Programmable systems available for OEM/systems integrators for in-house configuring of outputs, ranges and set points to reduce inventory and lead times
- Calibration certificates available (contact customer service)

## Description

The NT25 Series digital/configurable is an industry first. This industrial pressure transducer features stability and accuracy over a wide temperature range. It is lower in cost than competitive units typically not found in older analog designs. It is also plug and play, which is not found in most lower-grade competitive units.

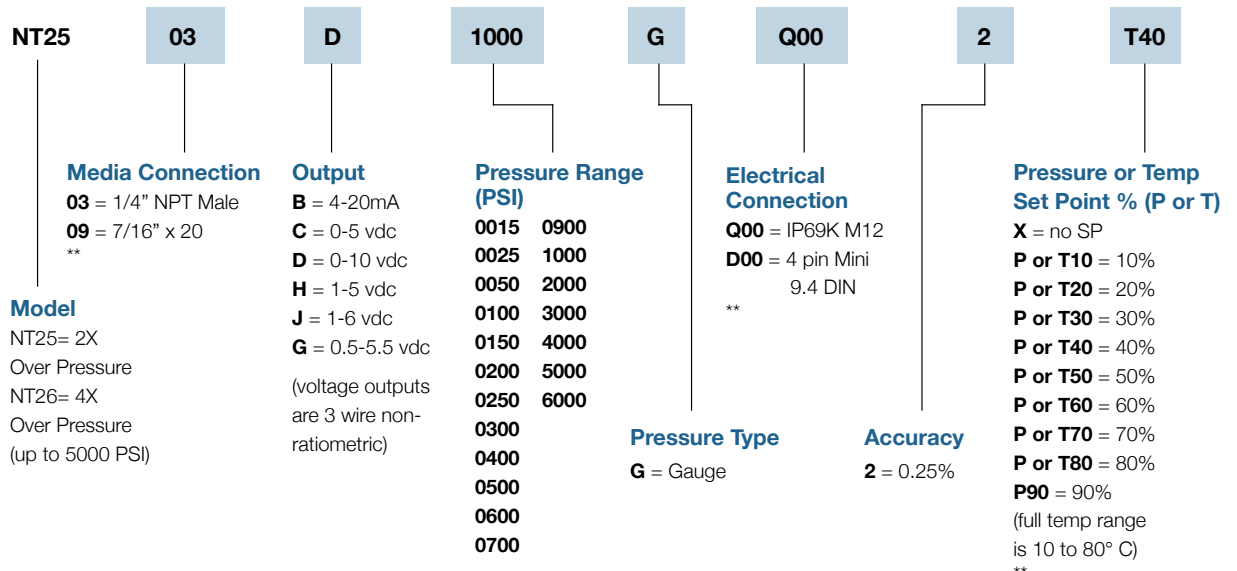
With its proprietary digital/ASIC technology, the NT25 Series features field proven redundant sensing elements without the need for solder in resistors or trim pots that can drift over time. This provides years of excellent performance and reliability even in the harshest applications. This combined with optional

4x over pressure and the optional integrated temperature or pressure digital switch feature, makes the NT25 Series truly an industry first and second to none.

For extreme applications where power washers are used for wash down, the NT25 Series optional IP69K seal, another industry first, makes it ideal no matter what the environment.

With its flexible low power design and lower manufacturing costs, the NT25 Series offers outstanding value and makes it ideal for custom wireless applications.

## How to Order (Example: Part Number: **NT25-03-D-1000-G-Q00-2-T40**)



\*\* Consult factory for further OEM options

## Specifications

### Performance

Accuracy	Performance @ 25°C (77°F) 0.25% BFSL (includes: non-linearity, hysteresis and non-repeatability)
Overrange Protection	2x Rated Pressure or optional 4x
Pressure Range	see ordering chart - up to 6000 PSI (690 bar) (optional higher ranges available)
Burst Pressure	5x or 20,000 PSI, whichever is less
Pressure Cycles	>100 million
Update Time	<=1msec
Digital Output	Optional digital output for pressure or temp switch point (not available on 4-20mA output units)

### Environmental Data

Temperature	
Compensated Temperatures	-20° to 85°C (-4 to 185°F)
Operating Temperatures	-40° to 100°C (-40 to 212°F)
Storage	-40° to 125°C (-40° to 250°F)
Total Error Band (TEB)	0.9%
Stability	0.25% FS typical (1 year)
Shock	100g, 6 ms, 1/2 sine per EN 60068-2-27, EN 60068-2-29
Vibration	12g peak, 10 to 2000 Hz per EN60068-2-6, EN60068-2-64
EMI/RFI Protection	Yes
Rating	Up to IP-69K available (high pressure wash down)

### Mechanical Configuration

Pressure Connections	See ordering chart
Wetted Material	17-4PH stainless steel (for other materials consult factory)
Electrical Connection	9.4 Din, IP-69K 4 pin M12 Connector
Case (housing)	304 stainless steel

### Electrical Data

Excitation	3.3-28VDC, Typ (must be at least 0.3V above full output voltage) (7.5VDC min for 4-20mA)
Output	see ordering chart
Output Load	0-800 Ohms @ 10-28VDC for current output 10K Ohms minimum for voltage outputs
Current Consumption	25mA max (current output), <5mA (voltage output) without digital output, <8mA with digital output
Output Noise	<2mV RMS
Reverse Polarity Protection	Yes
Zero Offset	1%
CE Approval	Shield must be attached to connector housing (not tested with cable lengths over 30 meters).
Set Point for Either Pressure or Temperature	For pressure, this is done by selecting a percentage of your transducer's full range and this will be the set point (40% of a 1000 PSI range will have the set point at 400 PSI) "P40". For temperature, simply select N°C.

