"SNORKEL" Pressure & Level Transmitter



304 Series shown with transparent cover

30 SERIES

- 300 Series: ranges from 40 inH_2O to 60 psig
  301 Series: adjustable ranges from 16 inH_2O to 1,450 psig via Hart®
  302 Series: adjustable ranges from 40 inH_2O to 1,160 psig
  304 Series: adjustable ranges from 16 inH_2O to 1,450 psig
- Hart® signal output available on 301 & 304 Series Transmitters
- 316 Stainless Steel wetted parts
- Strong flush diaphragm with minimal fill volume
- Can be cleaned-in-place (CIP) or steamed-in-place (SIP)
- Meets the requirements of 3-A

HART COMMUNICATION PROTOCOL

APPLICATIONS

- Tank level measurement
- Food & beverage
- Dairy
- Breweries
- Chemical processing
- Pharmaceutical

FEATURES & BENEFITS

300/301 Series

- Cable connection only (no housing)
- Active temperature compensation
- Fixed range (300 Series)
- Range adjustment with Hart® (301 Series)
- 10:1 Turn down (301 Series)

302 Series

- All polished Stainless Steel housing
- Active temperature compensation
- Zero/span adjustable
- 4:1 Turn down

304 Series

- All polished Stainless Steel housing
- Active temperature compensation
- Accuracy 0.1% of adjusted span
- 10:1 Turn down
- Easy programming and range adjustment without test pressure via on-board display
- Hart® protocol available

	SERIES	SPECIFICATIONS
Output signals	All	4 mA to 20 mA 2-wire, 4 mA to 20 mA 2-wire and Hart® signal (301 & 304 Series only)
Pressure ranges	300 Series	Ranges from 40 inH_2O to 60 psig
	302 Series	Adjustable ranges from 40 inH_2O to 1,160 psig
	301/304 Series	Adjustable ranges from 16 inH_2O to 1,450 psig
Accuracy	300//302 Series	0.2% of adjusted span
	301/304 Series	0.1% of adjusted span
Stability	All	<0.1%/year
Adjustment	301 Series	Hart® signal
	302 Series	Zero and span internally
	304 Series	By 3 push buttons on display or optional Hart® signal
Response time	All	<150 ms
Service life	All	>10 years
Temperature ranges	300/301 Series	14 °F to 158 °F (-10 °C to 70 °C)
	302/304 Series	-4 °F to 212 °F (-20 °C to 100 °C) ; 293 °F (145 °C) for 45 min.
Power requirement*	All	12 Vdc to 36 Vdc
Measuring element	All	316L Stainless Steel (Hastelloy C, Tantalum or Gold plated optional)
Connection	All	316 Stainless Steel
Housing material	All	304 Stainless Steel (316 Stainless Steel optional)
Environmental rating	300/301 Series	IP68
	302/304 Series	IP66 (IP68 optional)
Electrical protection	All	IP66 (NEMA 4X), IP68 (NEMA 6) optional
Weight		Weight is dependent on model and cable length

* Unregulated

⚠ **WARNING:** This product can expose you to chemicals including Lead and Nickel, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Adaptive Industrial Solutions | sales@adaptiveind.com | (877) 818-5009

ORDERING INFORMATION						
SERIES	**300**	Fixed range transmitter	**302**	Adjustable transmitter		
	301	Adjustable transmitter with Hart® signal	**304**	Intelligent transmitter		
TRI-CLAMP SIZE	**12**	1-1/2"	**24**	3"		
	16	2"				
300 SERIES PRESSURE RANGES (Fixed)	**40 inH$_2$O**	0 inH$_2$O to 40 inH$_2$O	**120 inH$_2$O**	0 inH$_2$O to 120 InH2O	**15**	0 psig to 15 psig
	60 inH$_2$O	0 inH$_2$O to 60 inH$_2$O	**5**	0 psig to 5 psig	**30**	0 psig to 30 psig
	80 inH$_2$O	0 inH$_2$O to 80 inH$_2$O	**10**	0 psig to 10 psig	**60**	0 psig to 60 psig
301 SERIES PRESSURE RANGES (Adjustable with Hart®)	**16/160 inH$_2$O**	0 inH$_2$O to 16 inH$_2$O to 0 inH$_2$O to 160 inH$_2$O	**14.5/145**	0 psig to 14.5 to 0 psig to 145 psig	**290/1450**	0 psig to 290 psig to 0 psig to 1,450 psig
	47/470 inH$_2$O	0 inH$_2$O to 47 inH$_2$O to 0 inH$_2$O to 470 inH$_2$O	**72.5/435**	0 psig to 72.5 psig to 0 psig to 435 psig		
302 SERIES PRESSURE RANGES (Adjustable)	**40/160 inH$_2$O**	0 inH$_2$O to 40 inH$_2$O to 0 inH$_2$O to 160 inH$_2$O	**14.5/58**	0 psig to 14.5 to 0 to 58 psig	**232/725**	0 psig to 232 psig to 0 psig to 725 psig
	160/277 inH$_2$O	0 inH$_2$O to 160 inH$_2$O to 0 inH$_2$O to 277 inH$_2$O	**36/145**	0 psig to 36 psig to 0 psig to 145 psig	**580/1160**	0 psig to 580 psig to 0 psig to 1,160 psig
	277/609 inH$_2$O	0 inH$_2$O to 277 to 0 inH$_2$O to 609 inH$_2$O	**100/232**	0 psig to 100 psig to 0 psig to 232 psig		
304 SERIES PRESSURE RANGES (Intelligent)	**16/160 inH$_2$O**	0 inH$_2$O to 16 inH$_2$O to 0 inH$_2$O to 160 inH$_2$O	**14.5/145**	0 psig to 14.5 to 0 psig to 145 psig	**290/1450**	0 psig to 290 psig to 0 psig to 1,450 psig
	47/470 inH$_2$O	0 inH$_2$O to 47 inH$_2$O to 0 inH$_2$O to 470 inH$_2$O	**72.5/435**	0 psig to 72.5 psig to 0 psig to 435 psig		
ACCURACIES	**1**	0.2% of adjusted span*				
OUTPUT SIGNALS	**1**	4 mA to 20 mA, 2-wire	**43**	4 mA to 20 mA, 2-wire and Hart® signal**		
ELECTRICAL CONNECTIONS †	**25**	M12 x 1 (4-pin)	**71**	PG9 Cable Gland		
	28	1/2" NPT Female				
CABLE LENGTHS ††	**15P**	15' Polyurethane cable	**30P**	30' Polyurethane cable		
OPTIONS	**JB**	Cable Junction Box	**TC**	Transparent Cover (for display)***		

Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

* Standard accuracy on the 304 Series is ±0.1% of adjusted span
** Required for the 301 Series, optional for the 304 Series
*** Available for the 304 Series only
† Available for the 302 and 304 Series only
†† Additional cable lengths available, consult factory

EXAMPLE **301 – 12 – 14.5/145 – 1 – 43 – 15P**

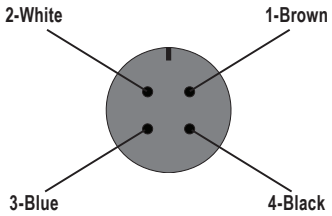
Series ..... 301 Series
Tri-Clamp size ..... 1-1/2"
Pressure range ..... 0 psig to 14.5 to 0 psig to 145 psig
Accuracy ..... 0.2% of adjusted span
Output signal ..... 4 mA to 20 mA, 2-wire and Hart® signal
Cable length ..... 15' Polyurethane cable

EXAMPLE **304 – 16 – 72.5/435 – 1 – 43 – 28 – 15P – TC**

Series ..... 304 Series
Tri-Clamp size ..... 2"
Pressure range ..... 0 psig to 72.5 psig to 0 psig to 435 psig
Accuracy ..... 0.1% of adjusted span
Output signal ..... 4 mA to 20 mA, 2-wire and Hart®
Electrical connection ..... 1/2" NPT Female
Cable length ..... 15' Polyurethane cable
Option ..... Transparent Cover

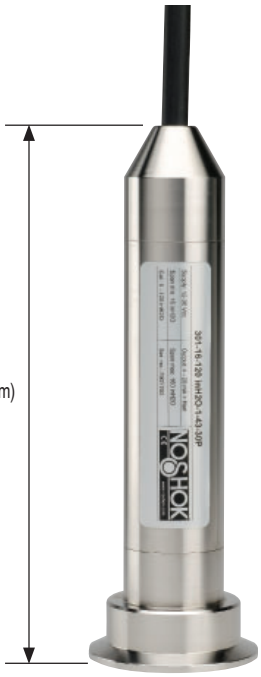
M12 x 1 (4-PIN) WIRING

1	Brown	V+
2	White	V-
3	Blue	Not used
4	Black	Not used



Dimensions

300/301 Series



* 300 Series fixed range is 6.22" (158 mm)

302 Series





*1-1/2", 2" and 3" Tri-Clamp connections available

304 Series





*1-1/2", 2" and 3" Tri-Clamp connections available