

Model 266DSH Differential
Model 266PSH Gauge
Model 266VSH Absolute

2600T Series Pressure Transmitters

Engineered solutions for all applications



Base accuracy

- from 0.06 % of calibrated span (optional 0.04 %)

Reliable sensing system coupled with very latest digital technologies

- provides large turn down ratio up to 100:1

Comprehensive sensor choice

- optimize in-use total performance and stability

10-year stability

- 0.15 % of URL

Flexible configuration facilities

- provided locally via local LCD keypad

New TTG (Through-The-Glass) keypad technology

- allows quick and easy local configuration without opening the cover, even in explosion proof environments

IEC 61508 certification

- for SIL2 (1oo1) and SIL3 (1oo2) applications

Full compliance with PED Category III

Model 266DSH Differential

Model 266PSH Gauge

Model 266VSH Absolute

Functional Specifications

Range and span limits

Sensor Code	Upper Range Limit (URL)	Lower Range Limit (LRL)			Minimum span	
		266DSH differential	266PSH gauge	266VSH absolute	266DSH differential 266PSH gauge	266VSH absolute
A	1 kPa	-1 kPa	-1 kPa		0.05 kPa	
	10 mbar	-10 mbar	-10 mbar		0.5 mbar	
	4 inH2O	-4inH2O	-4inH2O		0.2 inH2O	
B	4 kPa	-4 kPa	-4 kPa		0.2 kPa	
	40 mbar	-40 mbar	-40 mbar		2 mbar	
	16 inH2O	-16 inH2O	-16 inH2O		0.8 inH2O	
E	16 kPa	-16 kPa	-16 kPa	0.07 kPa abs (\$)	0.54 kPa	0.54 kPa
	160 mbar	-160 mbar	-160 mbar	0.7 mbar abs (\$)	5.4 mbar	5.4 mbar
	64 inH2O	-64 inH2O	-64 inH2O	0.5 mmHg (\$)	2.16 inH2O	4 mmHg
F	40 kPa	-40 kPa	-40 kPa	0.07 kPa abs (\$)	0.4 kPa	0.67 kPa
	400 mbar	-400 mbar	-400 mbar	0.7 mbar abs (\$)	4 mbar	6.7 mbar
	160 inH2O	-160 inH2O	-160 inH2O	0.5 mmHg (\$)	1.6 inH2O	5 mmHg
G	65 kPa	-65 kPa	-65 kPa	0.07 kPa abs (\$)	0.65 kPa	1.1 kPa
	650 mbar	-650 mbar	-650 mbar	0.7 mbar abs (\$)	6.5 mbar	11 mbar
	260 inH2O	-260 inH2O	-260 inH2O	0.5 mmHg (\$)	2.6 inH2O	8 mmHg
H	160 kPa	-160 kPa	1 kPa abs	0.07 kPa abs (\$)	1.6 kPa	2.67 kPa
	1600 mbar	-1600 mbar	10 mbar abs	0.7 mbar abs (\$)	16 mbar	26.7 mbar
	642 inH2O	-642 inH2O	0.15 psia	0.5 mmHg (\$)	6.4 inH2O	20 mmHg
M	600 kPa	-600 kPa	1 kPa abs	0.07 kPa abs (\$)	6 kPa	10 kPa
	6 bar	-6 bar	10 mbar abs	0.7 mbar abs (\$)	0.06 bar	0.1 bar
	87 psi	-87 psi	0.15 psia	0.5 mmHg (\$)	0.87 psi	1.45 psi
P	2400 kPa	-2400 kPa	1 kPa abs	0.07 kPa abs (\$)	24 kPa	40 kPa
	24 bar	-24 bar	10 mbar abs	0.7 mbar abs (\$)	0.24 bar	0.4 bar
	348 psi	-348 psi	0.15 psia	0.5 mmHg (\$)	3.5 psi	5.8 psi
Q	8000 kPa	-8000 kPa	1 kPa abs	0.07 kPa abs (\$)	80 kPa	134 kPa
	80 bar	-80 bar	10 mbar abs	0.7 mbar abs (\$)	0.8 bar	1.34 bar
	1160 psi	-1160 psi	0.15 psia	0.5 mmHg (\$)	11.6 psi	19.4 psi
S	16000 kPa	-16000 kPa	1 kPa abs	0.07 kPa abs (\$)	160 kPa	267 kPa
	160 bar	-160 bar	10 mbar abs	0.7 mbar abs (\$)	1.6 bar	2.67 bar
	2320 psi	-2320 psi	0.15 psia	0.5 mmHg (\$)	23.2 psi	38.7 psi

(\$) Lower Range Limit is 0.135 kPa abs, 1.35 mbar abs, 1 mmHg for inert Galden or 0.4 kPa abs, 4 mbar abs, 3 mmHg for inert Halocarbon.

Span limits

Maximum span = URL (can be further adjusted up to \pm URL (TD = 0.5) for differential models, within the range limits)
IT IS RECOMMENDED TO SELECT THE TRANSMITTER SENSOR CODE PROVIDING THE TURNDOWN VALUE AS LOWEST AS POSSIBLE TO OPTIMIZE PERFORMANCE CHARACTERISTICS.

Zero suppression and elevation

Zero and span can be adjusted to any value within the range limits detailed in the table as long as:
– calibrated span \geq minimum span

Recommendation for square root function

At least 10% of Upper Range Limit (URL)

Damping

Selectable time constant : between 0 and 60 s
This is in addition to sensor response time.

Turn on time

Operation within specification in less than 10 s with minimum damping.

Insulation resistance

> 100 M Ω at 500 V DC (terminals to earth)

Operative limits

Pressure limits:

Overpressure limits

Without damage to the transmitter

Sensors	Fill fluid	Overpressure limits
Sensor F to S	Silicone oil	0.07 kPa abs, 0.7 mbar abs, 0.5 mmHg and 21 MPa, 210 bar, 3045 psi ⁽¹⁾ ⁽²⁾
Sensor F to Q 266DSH High Static	Silicone oil	0.07 kPa abs, 0.7 mbar abs, 0.5 mmHg and 42 MPa, 420 bar, 6090 psi
Sensor E	Silicone oil	0.07 kPa abs, 0.7 mbar abs, 0.5 mmHg and 16 MPa, 160 bar, 2320 psi ⁽¹⁾
Sensor B	Silicone oil	0.07 kPa abs, 0.7 mbar abs, 0.5 mmHg and 7 MPa, 70 bar, 1015 psi ⁽¹⁾
Sensor A	Silicone oil	0.07 kPa abs, 0.7 mbar abs, 0.5 mmHg and 2 MPa, 20 bar, 290 psi ⁽¹⁾
Sensor F to S	Inert (Galden)	0.135 kPa abs, 1.35 mbar abs, 1 mmHg and 21 MPa, 210 bar, 3045 psi ⁽¹⁾ ⁽²⁾
Sensor E	Inert (Galden)	0.135 kPa abs, 1.35 mbar abs, 1 mmHg and 16 MPa, 160 bar, 2320 psi ⁽¹⁾
Sensor F to S	Inert (Halocarbon)	0.4 kPa abs, 4 mbar abs, 3 mmHg and 21 MPa, 210 bar, 3045 psi ⁽¹⁾ ⁽²⁾
Sensor F to Q 266DSH High Static	Inert (Halocarbon)	0.4 kPa abs, 4 mbar abs, 3 mmHg and 42 MPa, 420 bar, 6090 psi
Sensor E	Inert (Halocarbon)	0.4 kPa abs, 4 mbar abs, 3 mmHg and 16 MPa, 160 bar, 2320 psi ⁽¹⁾

(1) 1 MPa, 10 bar, 145 psi for Kynar-PVDF

(2) 16 MPa, 160 bar, 2320 psi for AISI 316 ss NACE bolting

Static pressure limits

Transmitters for differential pressure model 266DSH operates within specifications between the following limits:

Sensors	Static pressure limits
Sensor F to S	1.3 kPa abs, 13 mbar abs, 0.2 psia and 21 MPa, 210 bar, 3045 psi ⁽¹⁾ ⁽²⁾
Sensor F to Q 266DSH High Static	1.3 kPa abs, 13 mbar abs, 0.2 psia and 42 MPa, 420 bar, 6090 psi
Sensor E	1.3 kPa abs, 13 mbar abs, 0.2 psia and 16 MPa, 160 bar, 2320 psi ⁽¹⁾
Sensor B	1.3 kPa abs, 13 mbar abs, 0.2 psia and 7 MPa, 70 bar, 1015 psi ⁽¹⁾
Sensor A	1.3 kPa abs, 13 mbar abs, 0.2 psia and 2 MPa, 20 bar, 290 psi ⁽¹⁾

(1) 1 MPa, 10 bar, 145 psi for Kynar-PVDF

(2) 16 MPa, 160 bar, 2320 psi for AISI 316 ss NACE bolting

Proof pressure

The transmitter can be exposed without leaking to line pressure of up to

– 48 MPa, 480 bar, 6960 psi

– 77 MPa, 770 bar, 11165 psi for 266DSH high static version.

Meet ANSI/ISA-S 82.03 hydrostatic test requirements.

Model 266DSH Differential

Model 266PSH Gauge

Model 266VSH Absolute

Temperature limits °C (°F) :

Ambient

is the operating temperature

Models 266DSH - 266PSH	Ambient temperature limits
Silicone oil for sensor F to S	-40 and 85 °C (-40 and 185 °F)
Silicone oil for sensor A to E	-25 and 85 °C (-13 and 185 °F)
Inert (Galden) for sensor F to S	-20 and 85 °C (-4 and 185 °F)
Inert (Galden) for sensor E	-10 and 85 °C (14 and 185 °F)
Inert (Halocarbon) for sensor F to S	-20 and 85 °C (-4 and 185 °F)
Inert (Halocarbon) for sensor E	-10 and 85 °C (14 and 185 °F)

Model 266VSH	Ambient temperature limits
Silicone oil for sensor F to S	-40 and 85 °C (-40 and 185 °F)
Silicone oil for sensor E	-15 and 70 °C (5 and 158 °F)
Inert (Galden) for sensor F to S	-10 and 65 °C (14 and 150 °F)
Inert (Halocarbon) for sensor F to S	-10 and 65 °C (14 and 150 °F)

Models 266DSH - 266PSH - 266VSH	Ambient temperature limits
LCD integral display	-40 and 85 °C (-40 and 185 °F)

LCD display may not be clearly readable below -20 °C (-4 °F) or above +70 °C (+158 °F)

IMPORTANT

For Hazardous Atmosphere applications see the temperature range specified on the certificate/approval relevant to the aimed type of protection

Process

Models 266DSH - 266PSH	Process temperature limits
Silicone oil for sensor F to S	-40 and 121 °C (-40 and 250 °F) ⁽¹⁾
Silicone oil for sensor A to E	-25 and 121 °C (-13 and 250 °F) ⁽¹⁾
Inert (Galden) for sensor F to S	-20 and 100 °C (-4 and 212 °F) ⁽²⁾
Inert (Galden) for sensor E	-10 and 100 °C (14 and 212 °F) ⁽²⁾
Inert (Halocarbon) for sensor F to S	-20 and 100 °C (-4 and 212 °F) ⁽²⁾
Inert (Halocarbon) for sensor E	-10 and 100 °C (14 and 212 °F) ⁽²⁾

Model 266VSH	Process temperature limits
Silicone oil for sensor F to S	-40 and 121 °C (-40 and 250 °F) ⁽¹⁾
Silicone oil for sensor E	-15 and 121 °C (5 and 250 °F) ⁽¹⁾
Inert (Galden) for sensor F to S	-10 and 100 °C (14 and 212 °F) ⁽²⁾
Inert (Halocarbon) for sensor F to S	-10 and 100 °C (14 and 212 °F) ⁽²⁾

(1) 100 °C (212 °F) for application below atmospheric pressure

(2) 65 °C (150 °F) for application below atmospheric pressure

Models 266DSH - 266PSH - 266VSH	Process temperature limits
Viton gasket	-20 and 121 °C (-4 and 250 °F)

Storage

Models 266DSH - 266PSH - 266VSH	Storage temperature limits
Storage limits	-50 and 85 °C (-58 and 185 °F)
LCD integral display	-40 and 85 °C (-40 and 185 °F)

Environmental limits

Electromagnetic compatibility (EMC)

Comply with EN 61326 and NAMUR NE-21
Surge immunity level (with surge protector): 4 kV
(according to IEC 1000-4-5 EN 61000-4-5)

Pressure equipment directive (PED)

Comply with 97/23/EEC Category III Module H.

Humidity

Relative humidity: up to 100 %
Condensing, icing: admissible

Vibration resistance

Accelerations up to 2 g at frequency up to 1000 Hz
(according to IEC 60068-2-6)

Shock resistance

Acceleration: 50 g
Duration: 11 ms
(according to IEC 60068-2-27)

Wet and dust-laden atmospheres

The transmitter is dust and sand tight and protected against immersion effects as defined by EN 60529 (1989) to IP 67 (IP 68 on request) or by NEMA to 4X or by JIS to C0920. IP65 with Harting Han connector.

Hazardous atmospheres

With or without integral display

INTRINSIC SAFETY:

ATEX Europe (code E1) and IEC Ex (code E8) approval

II 1 G Ex ia IIC T6/T5/T4 and

II 1/2 G Ex ia IIC T6/T5/T4; IP67.

II 1 D Ex iaD 20 T85 °C and

II 1/2 D Ex iaD 21 T85 °C; IP67.

NEPSI China (code EY)

Ex ia IIC T4~T6, DIP A20TA, T4~T6.

EXPLOSION PROOF:

ATEX Europe (code E2) and IEC Ex (code E9) approval

II 1/2 G Ex d IIC T6 and

II 1/2 D Ex tD A21 T85 °C (-50 °C ≤ Ta ≤ +75 °C); IP67.

NEPSI China (code EZ)

Ex d IIC T6, DIP A21TA, T6.

TYPE "N":

ATEX Europe (code E3) and IEC Ex (code ER) type examination

II 3 G Ex nL IIC T6/T5/T4 and

II 3 D Ex tD A22 T85 °C; IP67.

NEPSI China (code ES) type examination

Ex nL IIC T4~T6, DIP A22TA, T6.

FM Approvals US (code E6) and

FM Approvals Canada (code E4):

– Explosionproof (US): Class I, Div. 1, Groups A, B, C, D

– Explosionproof (Canada): Class I, Div. 1, Groups B, C, D

– Dust ignitionproof : Class II, Div. 1, Groups E, F, G

– Suitable for: Class II, Div. 2, Groups F, G; Class III, Div.1, 2

– Nonincendive: Class I, Div. 2, Groups A, B, C, D

– Intrinsically safe: Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G

Class I, Zone 0 AEx ia IIC T6/T4, Zone 0 (FM US)

Class I, Zone 0 Ex ia IIC T6/T4, Zone 0 (FM Canada)

COMBINED ATEX (code EW = E1 + E2 + E3), (code E7 = E1 + E2)

COMBINED ATEX and FM Approvals (code EN = EW + E4 + E6)

COMBINED FM Approvals US and Canada

– Intrinsically safe (code EA)

– Explosionproof (code EB)

– Nonincendive (code EC)

COMBINED IEC (code EH = E8 + E9), (code EI = E8 + E9 + ER)

COMBINED NEPSI (code EP = EY + EZ), (code EQ = EY + EZ + ES)

– GOST (Russia), GOST (Kazakhstan), GOST (Belarus) Inmetro (Brazil)

based on ATEX

REFER TO CERTIFICATES FOR AMBIENT TEMPERATURE RANGES (WITHIN THE LIMITS OF -50 TO 85°C) RELATED TO THE DIFFERENT TEMPERATURE CLASSES

Model 266DSH Differential

Model 266PSH Gauge

Model 266VSH Absolute

Electrical Characteristics and Options

HART digital communication and 4 to 20 mA output Power Supply

The transmitter operates from 10.5 to 42 V DC with no load and is protected against reverse polarity connection (additional load allows operations over 42 V DC). For Ex ia and other intrinsically safe approval power supply must not exceed 30 V DC.

Minimum operating voltage increase to 12.3 V DC with optional surge protector

Ripple

20 mV max on a 250 Ω load as per HART specifications.

Load limitations

4 to 20 mA and HART total loop resistance :

$$R \text{ (k}\Omega\text{)} = \frac{\text{Supply voltage} - \text{min. operating voltage (V DC)}}{22 \text{ mA}}$$

A minimum of 250 Ω is required for HART communication.

Optional indicators

Integral display (code L1)

Wide screen LCD, 128 x 64 pixel,
52.5 x 27.2 mm (2.06 x 1.07 in.) dot matrix. Multilanguage.
Four keys for configuration and management of device.
Easy setup for quick commissioning.
User selectable application-specific visualizations.
Totalized and instantaneous flow indication.
Display may also indicate static pressure, sensor temperature and diagnostic messages and provides configuration facilities.

Through-the-glass (TTG) controlled display (code L5)

As above integral display but equipped with the innovative TTG keypad allowing the activation of the configuration and management menus of the device without the need of removing the transmitter housing cover.
TTG keypad is protected against accidental activations.

Optional surge protection

Up to 4kV

- voltage 1.2 μ s rise time / 50 μ s delay time to half value
- current 8 μ s rise time / 20 μ s delay time to half value

Output signal

Two-wire 4 to 20 mA, user-selectable for linear or square root output, power of $\sqrt[3]{2}$ or $\sqrt[5]{2}$, square root for bidirectional flow, 22 points linearization table (i.e. for horizontal or spherical tank level measurement).

HART® communication provides digital process variable superimposed on 4 to 20 mA signal, with protocol based on Bell 202 FSK standard.

Output current limits (to NAMUR standard)

Overload condition

- Lower limit: 3.8 mA (configurable from 3.8 to 4 mA)
- Upper limit: 20.5 mA (configurable from 20 to 21 mA)

Alarm current

- Lower limit: 3.6 mA (configurable from 3.6 to 4 mA)
- Upper limit: 21 mA (configurable from 20 to 22 mA)

Factory setting: high alarm current

Process diagnostics (PILD)

Plugged impulse line detection (PILD) generates a warning via HART communication. The device can also be configured to drive the analog output signal to the "Alarm current".



FOUNDATION Fieldbus output

Device type

LINK MASTER DEVICE

Link Active Scheduler (LAS) capability implemented.

Manufacturer code: 000320 (hex)

Device type code: 0007 (hex)

Power supply

The transmitter operates from 9 to 32 V DC, polarity independent, with or without surge protector.

For Ex ia approval power supply must not exceed 24 V DC (entity certification) or 17.5 V DC (FISCO certification), according to FF-816.

Current consumption

operating (quiescent): 15 mA

fault current limiting: 20 mA max.

Output signal

Physical layer in compliance to IEC 1158-2/EN 61158-2 with transmission to Manchester II modulation, at 31.25 kbit/s.

Function blocks/execution period

3 enhanced Analog Input blocks/25 ms max (each)

1 enhanced PID block/40 ms max.

1 standard ARithmetic block/25 ms

1 standard Input Selector block/25 ms

1 standard Control Selector block/25 ms

1 standard Signal Characterization block/25 ms

1 standard Integrator/Totalizer block/25 ms

Additional blocks

1 enhanced Resource block,

1 custom Pressure with calibration transducer block

1 custom Advanced Diagnostics transducer block including

Plugged Input Line Detection

1 custom Local Display transducer block

Number of link objects

35

Number of VCRs

35

Output interface

FOUNDATION fieldbus digital communication protocol to standard H1, compliant to specification V. 1.7.

Integral display

Wide screen LCD, 128 x 64 pixel,

52.5 x 27.2 mm (2.06 x 1.07 in.) dot matrix. Multilanguage.

Four keys for configuration and management of device.

Easy setup for quick commissioning.

User selectable application-specific visualizations.

Totalized and instantaneous flow indication.

Display may also indicate static pressure, sensor temperature and diagnostic messages and provides configuration facilities.

Transmitter failure mode

The output signal is "frozen" to the last valid value on gross transmitter failure condition, detected by self-diagnostics which also indicate a BAD conditions. If electronic failure or short circuit occur the transmitter consumption is electronically limited at a defined value (20 mA approx), for safety of the network.

Model 266DSH Differential

Model 266PSH Gauge

Model 266VSH Absolute

PROFIBUS PA output

Device type

Pressure transmitter compliant to Profiles 3.0.1

Identification number: 3450 (hex)

Power supply

The transmitter operates from 9 to 32 V DC , polarity independent, with or without surge protector.

For Ex ia approval power supply must not exceed 17.5 V DC.

Intrinsic safety installation according to FISCO model.

Current consumption

operating (quiescent): 15 mA

fault current limiting: 20 mA max.

Output signal

Physical layer in compliance to IEC 1158–2/EN 61158–2 with transmission to Manchester II modulation, at 31.25 kbit/s.

Output interface

PROFIBUS PA communication according to Profibus

DP50170 Part 2/DIN 19245 part 1–3.

Output update time

25 ms

Data blocks

3 analog input, 1 physical.

Additional blocks

1 Pressure with calibration transducer block

1 Advanced Diagnostics transducer block including Plugged Input Line Detection

1 Local Display transducer block

Integral display

Wide screen LCD, 128 x 64 pixel,

52.5 x 27.2 mm (2.06 x 1.07 in.) dot matrix. Multilanguage.

Four keys for configuration and management of device.

Easy setup for quick commissioning.

User selectable application-specific visualizations.

Instantaneous flow indication.

Display may also indicate static pressure, sensor temperature and diagnostic messages and provides configuration facilities.

Transmitter failure mode

On gross transmitter failure condition, detected by self-diagnostics, the output signal can be driven to defined conditions, selectable by the user as safe, last valid or calculated value.

If electronic failure or short circuit occur the transmitter consumption is electronically limited at a defined value (20 mA approx), for safety of the network.

Performance specifications

Stated at reference condition to IEC 60770 ambient temperature of 20 °C (68 °F), relative humidity of 65 %, atmospheric pressure of 1013 hPa (1013 mbar), mounting position with vertical diaphragm and zero based range for transmitter with isolating diaphragms in AISI 316 L ss or Hastelloy and silicone oil fill and HART digital trim values equal to 4 mA and to 20 mA span end points, in linear mode. Unless otherwise specified, errors are quoted as % of span. Some performance referring to the Upper Range Limit are affected by the actual turndown (TD) as ratio between Upper Range Limit (URL) and calibrated span.

IT IS RECOMMENDED TO SELECT THE TRANSMITTER SENSOR CODE PROVIDING THE TURNDOWN VALUE AS LOWEST AS POSSIBLE TO OPTIMIZE PERFORMANCE CHARACTERISTICS.

Dynamic performance (according to IEC 61298–1 definition)

Sensors	Time constant (63.2 % of total step change)
Sensor M to S	≤ 70 ms
Sensor H	100 ms
Sensor G	130 ms
Sensor F	180 ms
Dead time for all sensors	30 ms

Response time (total) = dead time + time constant

Accuracy rating

% of calibrated span, including combined effects of terminal based linearity, hysteresis and repeatability. For fieldbus versions SPAN refer to analog input function block outscale range

Model	Sensor	for TD up to	
266DSH standard static and 266PSH	F to P	from 1:1 to 10:1	± 0.06 %
	F to P	from 10:1 to 100:1	± (0.006 x TD) %
	E, Q, S	from 1:1 to 10:1	± 0.075 %
	Q and S	from 10:1 to 100:1	± (0.0075 x TD) %
	E	from 10:1 to 30:1	± (0.0075 x TD) %
	B	from 1:1 to 10:1	± 0.10 %
	B	from 10:1 to 20:1	± (0.01 x TD) %
	A	from 1:1 to 4:1	± 0.10 %
266DSH 266PSH (option D2)	A	from 4:1 to 20:1	± (0.025 x TD) %
	F to Q	from 1:1 to 5:1	± 0.04 %
	F to P	from 5:1 to 100:1	± (0.0105 + 0.0059 x TD) %
266DSH high static	Q	from 5:1 to 100:1	± (0.003 + 0.0074 x TD) %
	F to Q	from 1:1 to 10:1	± 0.075 %
	F to Q	from 10:1 to 100:1	± (0.0075 x TD) %
266VSH	E to S	from 1:1 to 10:1	± 0.075 %
	F to S	from 10:1 to 60:1	± (0.0075 x TD) %
	E	from 10:1 to 30:1	± (0.0075 x TD) %

Ambient temperature

per 20K change between the limits of -40 °C to +85 °C
(per 36 °F change between the limits of -40 to +185 °F):

Model	Sensor	for TD up to	
266DSH	F to Q	10:1	± (0.03 % URL + 0.045 % span)
	E and S	10:1	± (0.04 % URL + 0.065 % span)
	B	10:1	± (0.06 % URL + 0.10 % span)
266PSH	A	4:1	± (0.10 % URL + 0.10 % span)
	F to Q	10:1	± (0.06 % URL + 0.09 % span)
266VSH	E and S	10:1	± (0.08 % URL + 0.13 % span)

for an ambient temperature change from -10 °C to +60 °C
(+14 to +140 °F):

Model	Sensor	for TD up to	
266DSH	F to Q	10:1	± (0.055 % URL + 0.08 % span)
	E and S	10:1	± (0.075 % URL + 0.11 % span)
	B	10:1	± (0.11 % URL + 0.18 % span)
266PSH	A	4:1	± (0.18 % URL + 0.18 % span)
	F to Q	10:1	± (0.11 % URL + 0.16 % span)
266VSH	E and S	10:1	± (0.15 % URL + 0.22 % span)

per 10K change between the limits of -40 °C to -10 °C or
+60° to +85 °C (per 18 °F change between the limits of -40
to +14 °F or +140° to +185 °F):

Model	Sensor	for TD up to	
266DSH	F to Q	10:1	± (0.03 % URL + 0.04 % span)
	E and S	10:1	± (0.04 % URL + 0.055 % span)
	B	10:1	± (0.055 % URL + 0.09 % span)
266PSH	A	4:1	± (0.09 % URL + 0.09 % span)
	F to Q	10:1	± (0.055 % URL + 0.08 % span)
266VSH	E and S	10:1	± (0.075 % URL + 0.11 % span)

Static pressure

(zero errors can be calibrated out at line pressure)

per 0.5 MPa, 5 bar or 72.5 psi (sensor A)

per 2 MPa, 20 bar or 290 psi (sensor B)

per 3.5 MPa, 35 bar or 500 psi (sensor E)

per 7 MPa, 70 bar or 1015 psi (sensor F to S)

Model 266DSH standard static

– zero error: ±0.05 % of URL for sensor F to S
±0.08 % of URL for sensor A, B and E

– span error: ±0.08 % of reading.

Model 266DSH high static

– zero error: ±0.08 % of URL for sensor F to Q

– span error: ±0.20 % of reading.

Supply voltage

Within voltage/load specified limits the total effect is less than
0.005 % of URL per volt.

Load

Within load/voltage specified limits the total effect is negligible.

Electromagnetic field

Meets all the requirements of EN 61326 and NAMUR NE-21.

Common mode interference

No effect from 100Vrms @ 50Hz, or 50 V DC

Mounting position

No effect for rotation on diaphragm plane. A tilt up to 90° from
vertical causes a zero shifts up to 0.5 kPa, 5 mbar or 2 inH₂O,
which can be corrected with zero adjustment. No span effect.

Stability

±0.15 % of URL over a ten years period
(±0.25 % of URL over a ten years period for sensor A and B)
0.15 % of URL over a five years period for 266DSH high static.

Total performance

similar to DIN 16086

Temperature change in the range from -10 to 60 °C (14 to 140 °F),
static pressure change (266DSH) 10 MPa, 100 bar, 1450 psi

Model	Sensor	for TD up to	
266DSH std. static	F to Q	1:1	± 0.24 % of calibrated span
266PSH	F to Q	1:1	± 0.15 % of calibrated span
266VSH	F to Q	1:1	± 0.28 % of calibrated span

Total performance includes the measurement deviation of

- non-linearity including hysteresis and non-reproducibility,
- thermal change of ambient temperature on zero and span,
- static pressure change on zero and span.(266DSH only)

$$E_{\text{perf}} = \sqrt{(E_{\Delta Tz} + E_{\Delta Ts})^2 + E_{\Delta Pz}^2 + E_{\Delta Ps}^2 + E_{\text{lin}}^2}$$

E_{perf} = Total Performance

$E_{\Delta Tz}$ = Effect of the ambient temperature on zero

$E_{\Delta Ts}$ = Effect of the ambient temperature on span

$E_{\Delta Pz}$ = Effect of the static pressure on zero (266DSH only)

$E_{\Delta Ps}$ = Effect of the static pressure on span (266DSH only)

E_{lin} = Accuracy rating (for terminal-based linearity 0.06 % or
0.075% as per sensor accuracy)

Model 266DSH Differential

Model 266PSH Gauge

Model 266VSH Absolute

Physical Specification

(Refer to ordering information sheets for variant availability related to specific model or versions code)

Materials

Process isolating diaphragms (*)

AISI 316 L ss; AISI 316 L ss gold plated; Monel 400™; Tantalum; Hastelloy C-276™; Hastelloy C-276™ on AISI 316L ss gasket seat.

Process flanges, adapters, plugs and drain/vent valves (*)

AISI 316 L ss; Hastelloy C-276™; Monel 400™.

Kynar™ (PVDF insert in AISI 316 ss flange)

Blind flange (reference side of 266PSH, 266VSH)

AISI 316 L ss.

Sensor fill fluid

Silicone oil; Inert fill (Halocarbon™ 4.2 or Galden™).

Mounting bracket (**)

Zinc plated carbon steel with chrome passivation; AISI 316 ss; AISI 316 L ss.

Gaskets (*)

Viton™; PTFE.

Sensor housing

AISI 316 L ss.

Bolts and nuts

AISI 316 ss bolts Class A4–80 and nuts Class A4–70 per UNI 7323 (ISO 3506);

AISI 316 ss bolts and nuts Class A4–50 per UNI 7323 (ISO 3506), in compliance with NACE MR0175 Class II (std. static only).

Plated alloy steel bolts per ASTM-A-193-77a grade B7M and nuts per ASTM A194/A 194 M-90 grade 2HM, in compliance with NACE MR0175 Class II.

Stainless steel per ASTM-A-453 grade 660D, in compliance with NACE MR0175 Class II (high static only).

Electronic housing and covers

Aluminium alloy (copper content ≤ 0.3 %) with baked epoxy finish (colour RAL9002);

AISI 316 L ss.

Covers O-ring

Buna N.

Local adjustments (zero, span and write protect)

Glass filled polyphenylene oxyde (removable).

Plates

AISI 316 ss for transmitter nameplate, certification plate, optional tag/calibration plate attached to the electronics housing and optional wired-on customer data plate. All printing by laser.

Calibration

Standard: at maximum span, zero based range, ambient temperature and pressure;

Optional: at specified range and ambient conditions.

(*) Wetted parts of the transmitter.

(**) U-bolt material: high-strength alloy steel or AISI 316 L ss;
bolts/nuts material: high-strength alloy steel or AISI 316 ss.

Optional extras

Mounting brackets

For vertical and horizontal 60mm. (2in) pipes or wall mounting. (EXCEPT U-BOLT ASSEMBLY WHICH IS NOT SUPPLIED FOR WALL MOUNTING, PARTS ARE THE SAME FOR PIPE AND WALL BRACKET OPTIONS, AS PER RELEVANT MATERIALS).

Display

4-position (at 90°) user orientable.

Optional plates

Code I2: for tag (up to 31 characters) and calibration details (up to 31 characters: lower and upper values plus unit) fixed onto transmitter housing.

Code I1: for customer data (32 character x 4 lines) wired-on transmitter housing

Surge protection

Cleaning procedure for oxygen service

Test Certificates (test, design, calibration, material traceability)

Tag and manual language

Communication connectors

Process connections

on flanges : $\frac{1}{4}$ – 18 NPT on process axis

on adapters : $\frac{1}{2}$ – 14 NPT on process axis

centre distance (266DSH): 54 mm (2.13 in.) on flange;

51, 54 or 57 mm (2.01, 2.13 or 2.24 in.) as per adapters fittings

fixing threads: $\frac{7}{16}$ – 20 UNF at 41.3 mm centre distance

Electrical connections

Two $\frac{1}{2}$ – 14 NPT or M20x1.5 threaded conduit entries, direct on housing.

Special communication connector (on request)

– HART : straight or angle Harting Han 8D connector and one plug.

– FOUNDATION Fieldbus, PROFIBUS PA: M12x1 or 7/8 in.

Terminal block

HART version: three terminals for signal/external meter wiring up to 2.5 mm² (14 AWG), also connection points for test and communication purposes.

Fieldbus versions: two terminals for signal wiring (bus connection) up to 2.5 mm² (14 AWG)

Grounding

Internal and external 6 mm² (10 AWG) ground termination points are provided.

Mounting position

Transmitter can be mounted in any position.

Electronics housing may be rotated to any position. A positive stop prevents over travel.

Mass (without options)

4 kg approx (8.8 lb);

4.35 kg approx (9.6 lb) for 266DSH high static version;

add 1.5 kg (3.3 lb) for AISI housing.

Add 650 g (1.5 lb) for packing.

Packing

Carton 27 x 24 x 20 cm approx (11 x 10 x 8 in.).

Model 266DSH Differential

Model 266PSH Gauge

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Configuration

Transmitter with HART communication and 4 to 20 mA Standard configuration

Transmitters are factory calibrated to customer's specified range. Calibrated range and tag number are stamped on the tag plate. If a calibration range and tag data are not specified, the transmitter will be supplied with the plate left blank and configured as follows:

Engineering Unit	kPa
4 mA	Zero
20 mA	Upper Range Limit (URL)
Output	Linear
Damping	1 s
Transmitter failure mode	Upscale
Software tag (8 characters max)	Blank
Optional LCD display	PV in kPa; output in mA and in percentage on bargraph

Any or all the above configurable parameters, including Lower range-value and Upper range-value which must be the same unit of measure, can be easily changed using the HART hand-held communicator or by a PC running the configuration software with DTM for 266 models. The transmitter database is customized with specified flange type and material, O-ring and drain/vent materials and meter code option.

Custom configuration (option N6)

The following data may be specified in addition to the standard configuration parameters:

Descriptor	16 alphanumeric characters
Message	32 alphanumeric characters
Date	Day, month, year

For HART protocol available engineering units of pressure measure are :

Pa, kPa, MPa
inH2O@4 °C, mmH2O@4 °C, psi
inH2O@20 °C, ftH2O@20 °C, mmH2O@20 °C
inHg, mmHg, Torr
g/cm², kg/cm², atm
mbar, bar

These and others are available for PROFIBUS and FOUNDATION Fieldbus.

Transmitter with PROFIBUS PA communication Standard configuration

Transmitters are factory calibrated to customer's specified range. Calibrated range and tag number are stamped on the tag plate. If a calibration range and tag data are not specified, the transmitter will be supplied with the plate left blank and configured as follows:

Measure Profile	Pressure
Engineering Unit	kPa
Output scale 0 %	Lower Range Limit (LRL)
Output scale 100 %	Upper Range Limit (URL)
Output	Linear
Hi-Hi Limit	Upper Range Limit (URL)
Hi Limit	Upper Range Limit (URL)
Low Limit	Lower Range Limit (LRL)
Low-Low Limit	Lower Range Limit (LRL)
Limits hysteresis	0.5 % of output scale
PV filter	0 s
Address (set by local key)	126
Tag	32 alphanumeric characters
Optional LCD display	PV in kPa; output in percentage on bargraph

Any or all the above configurable parameters, including the range values which must be the same unit of measure, can be easily changed by a PC running the configuration software with DTM for 266 models. The transmitter database is customized with specified flange type and material, O-ring and drain/vent materials and meter code option.

Custom configuration (option N6)

The following data may be specified in addition to the standard configuration parameters:

Descriptor	32 alphanumeric characters
Message	32 alphanumeric characters
Date	Day, month, year

Transmitter with FOUNDATION Fieldbus communication

Standard configuration

Transmitters are factory calibrated to customer's specified range. Calibrated range and tag number are stamped on the tag plate. If a calibration range and tag data are not specified, the transmitter will be supplied with the plate left blank and the analog input function block FB1 is configured as follows:

Measure Profile	Pressure
Engineering Unit	kPa
Output scale 0 %	Lower Range Limit (LRL)
Output scale 100 %	Upper Range Limit (URL)
Output	Linear
Hi-Hi Limit	Upper Range Limit (URL)
Hi Limit :	Upper Range Limit (URL)
Low Limit	Lower Range Limit (LRL)
Low-Low Limit	Lower Range Limit (LRL)
Limits hysteresis	0.5 % of output scale
PV filter time	0 s
Tag	32 alphanumeric characters
Optional LCD display	PV in kPa; output in percentage on bargraph

The analog input function block FB2 and FB3 are configured respectively for the sensor temperature measured in °C and for the static pressure measured in MPa.

Any or all the above configurable parameters, including the range values, can be changed using any host compliant to FOUNDATION fieldbus. The transmitter database is customized with specified flange type and material, O-ring and drain/vent materials and meter code option.

Custom configuration (option N6)

The following data may be specified in addition to the standard configuration parameters:

Descriptor	32 alphanumeric characters
Message	32 alphanumeric characters
Date	Day, month, year

Model 266DSH Differential

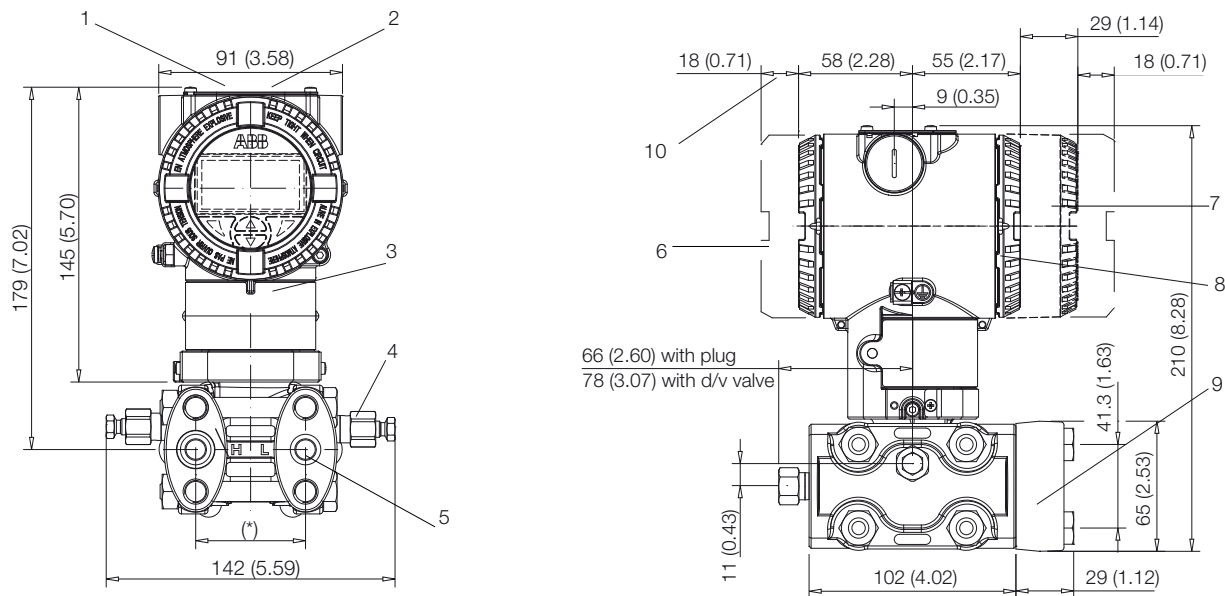
Model 266PSH Gauge

Model 266VSH Absolute

Mounting dimensions

(not for construction unless certified) – dimensions in mm (in.)

Standard static transmitter with barrel housing - horizontal flanges

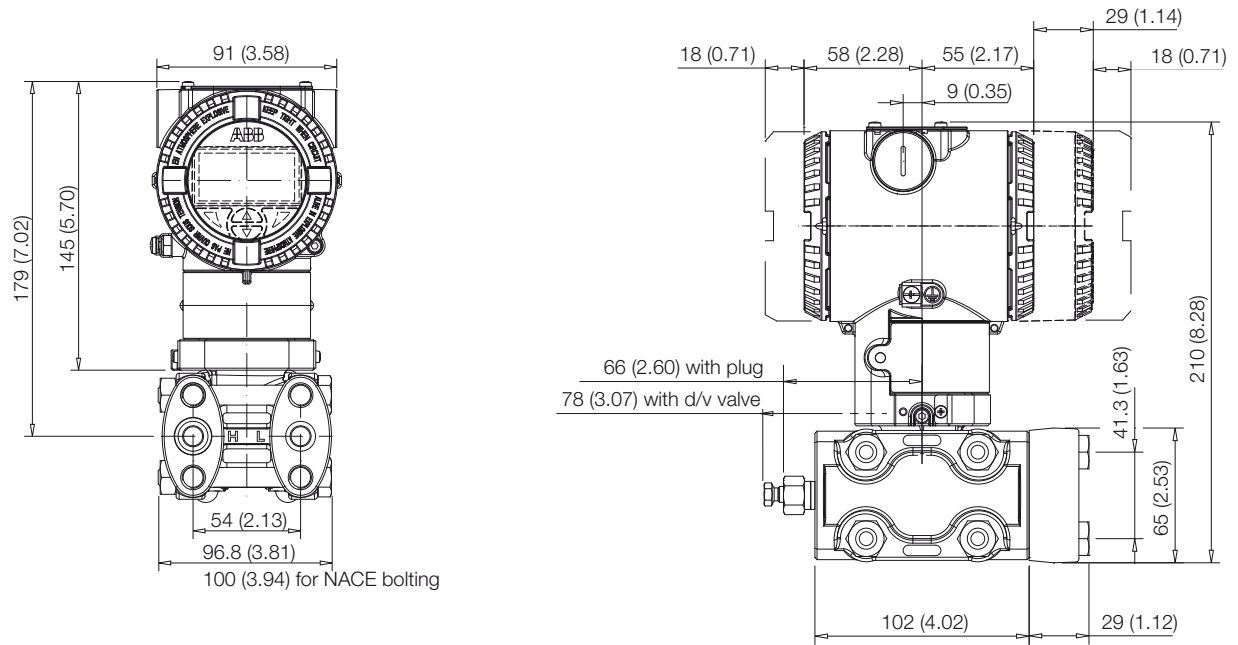


(*) FOR MODEL 266DSH: 54 (2.13) mm (in) on 1/4 – 18 NPT process flange
 51 (2.01), 54 (2.13) or 57 (2.24) mm (in) according to 1/2 – 14 NPT adapters fitting;
 FOR MODEL 266PSH: 54 (2.13) mm (in) with low pressure side flange without process connection (a filter is fitted) and drain/vent valve

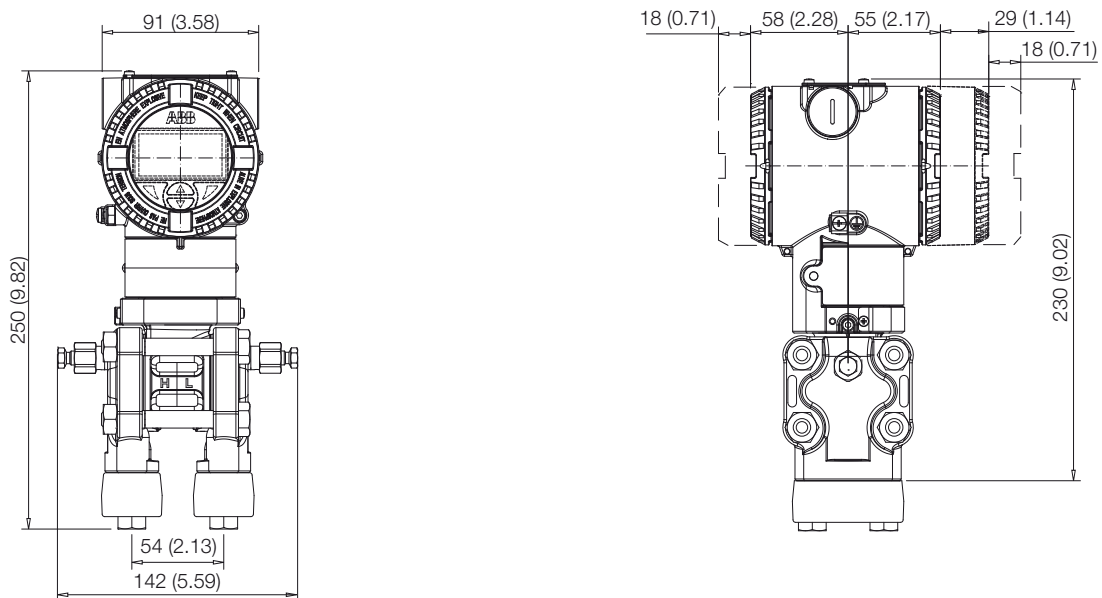
NOTE : Process connection, gasket groove and gaskets are in accordance with IEC 61518.
 Bolting threads for fixing adapter or other devices (i.e. manifold etc.) on process flange is $\frac{7}{16}$ – 20 UNF.

1 Adjustments | 2 Identification plate | 3 Certification plate | 4 Drain/vent valve | 5 Process connection | 6 Terminal side | 7 Integral display housing |
 8 Electronic side | 9 Adapter | 10 Space for cover removal

High static transmitter with barrel housing - horizontal flanges



Standard static transmitter with barrel housing - vertical flanges

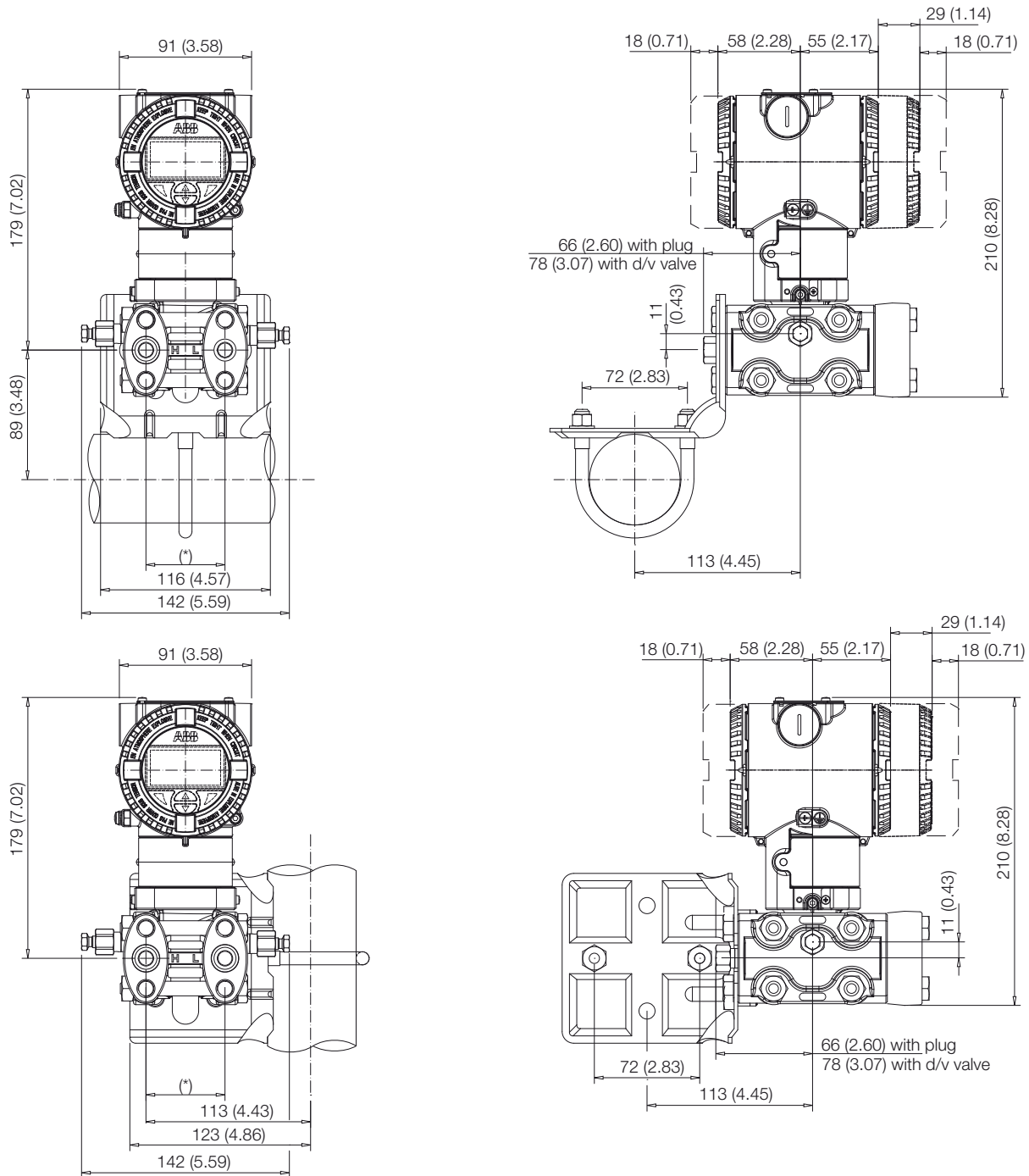


Model 266DSH Differential

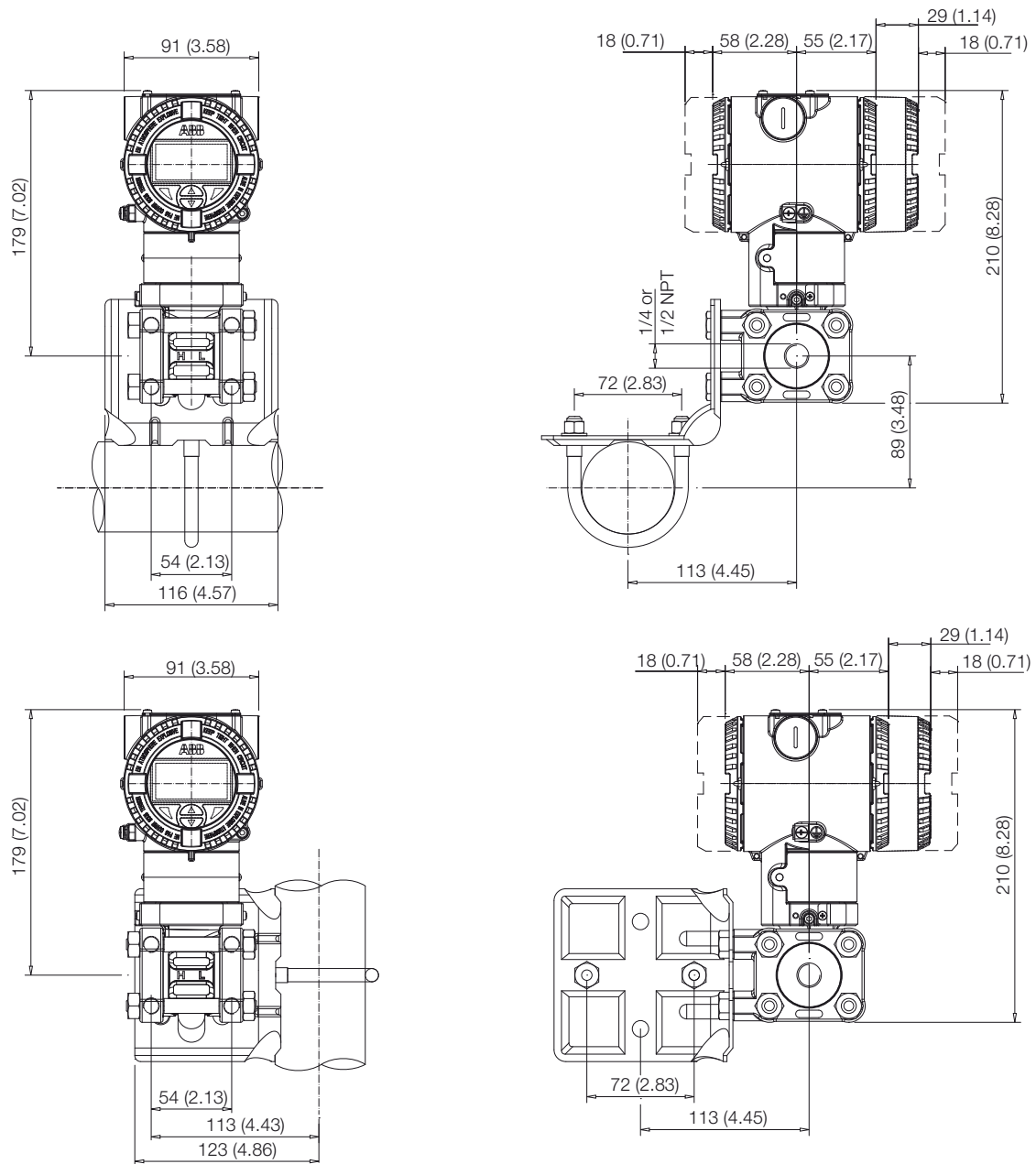
Model 266PSH Gauge

Model 266VSH Absolute

Transmitter on bracket for vertical or horizontal 60 mm (2in) pipe mounting

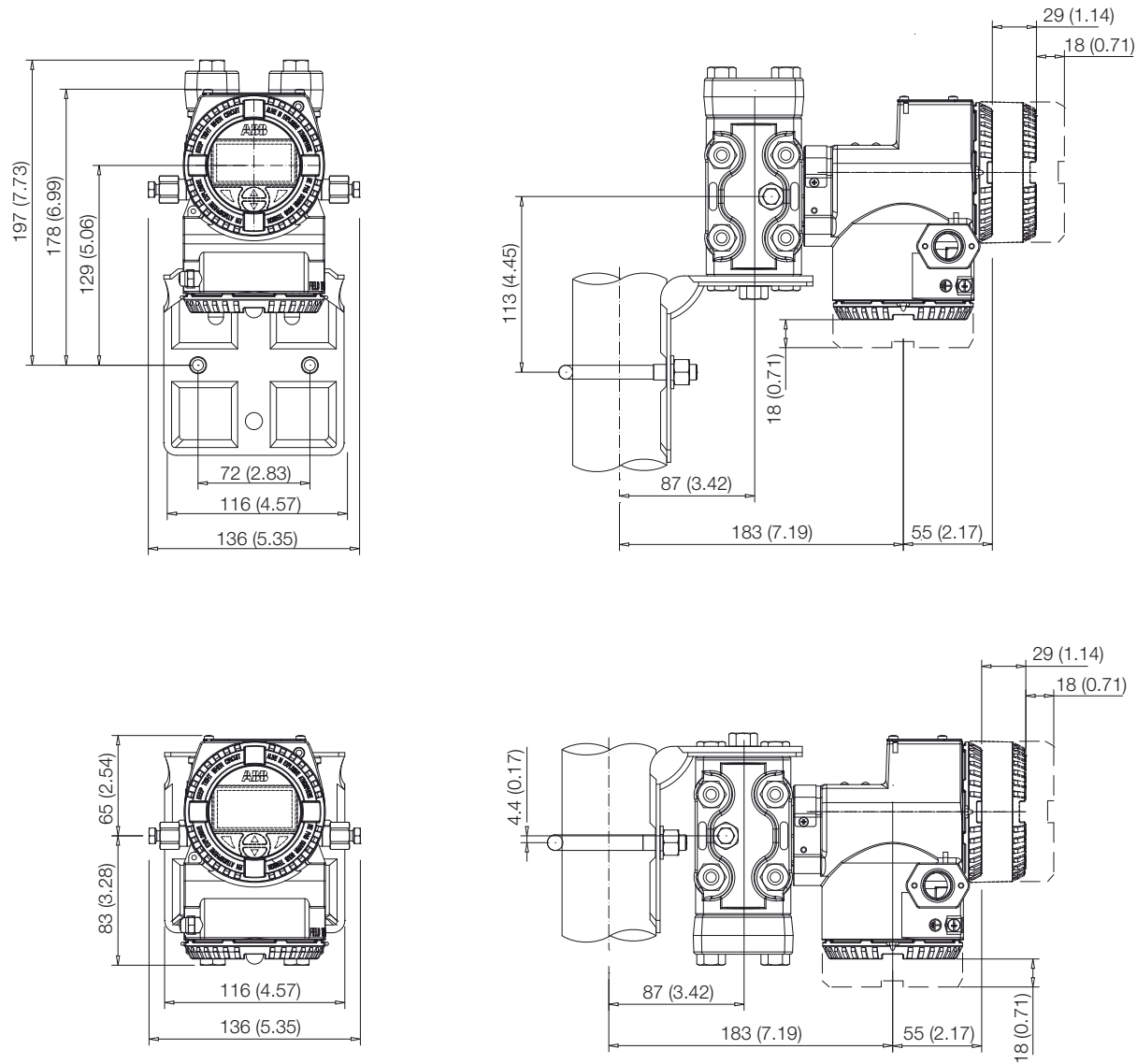


Transmitter with Kynar flanges on bracket for vertical or horizontal 60 mm (2in) pipe mounting

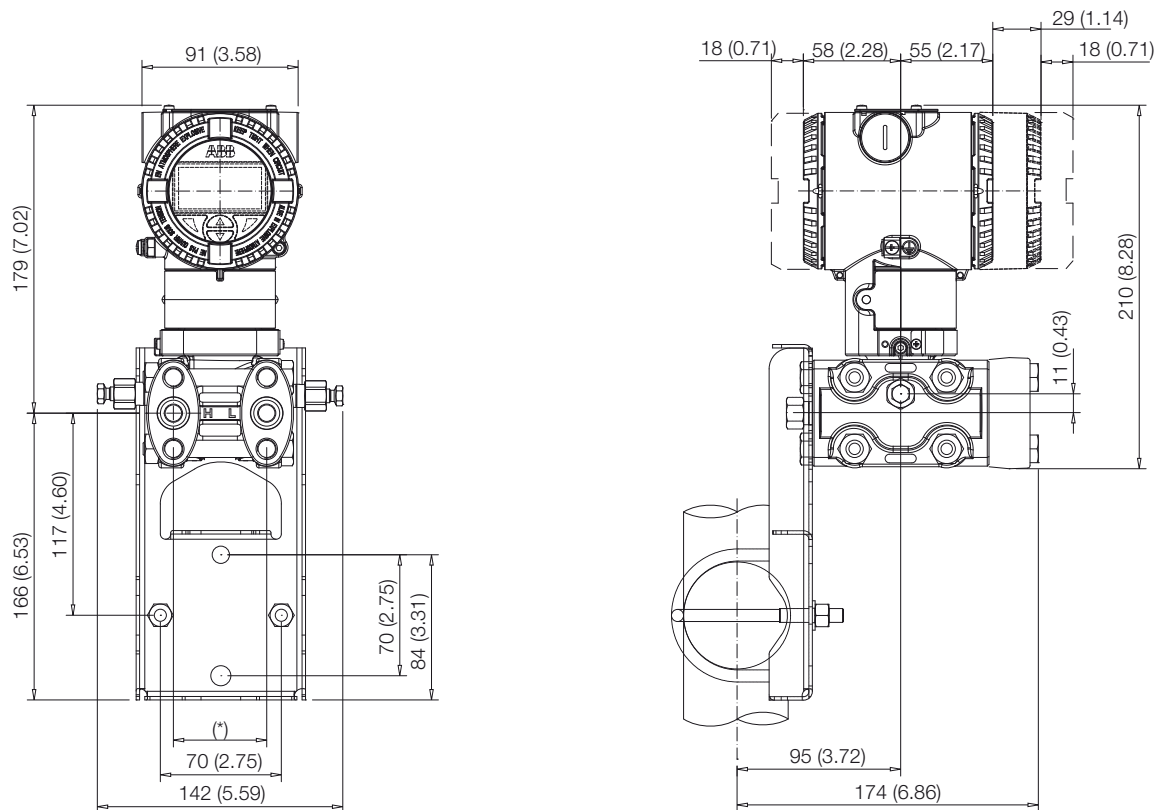


Model 266DSH Differential
Model 266PSH Gauge
Model 266VSH Absolute

Transmitter with DIN aluminium housing - horizontal flanges on bracket for vertical or horizontal 60 mm (2in) pipe mounting



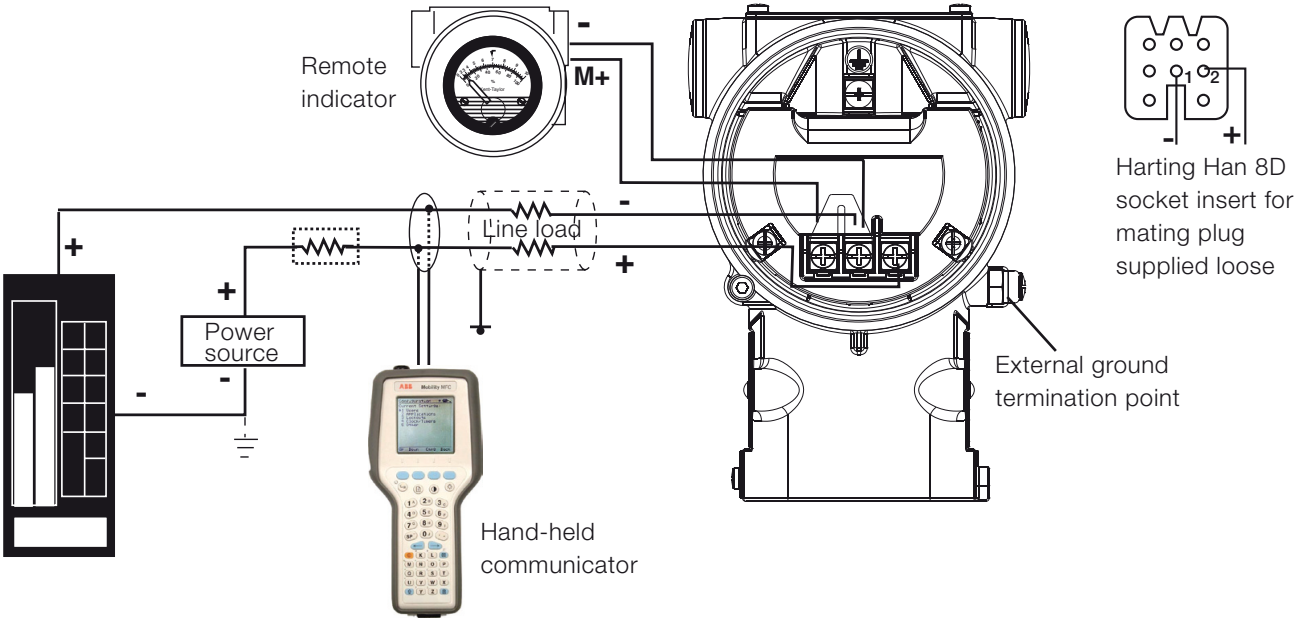
Transmitter on flat bracket for vertical or horizontal 60 mm (2in) pipe mounting



Model 266DSH Differential
Model 266PSH Gauge
Model 266VSH Absolute

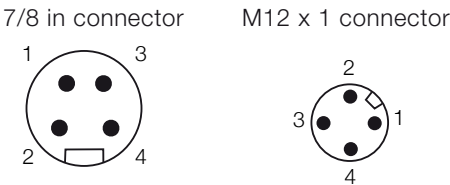
Electrical connections

HART Version



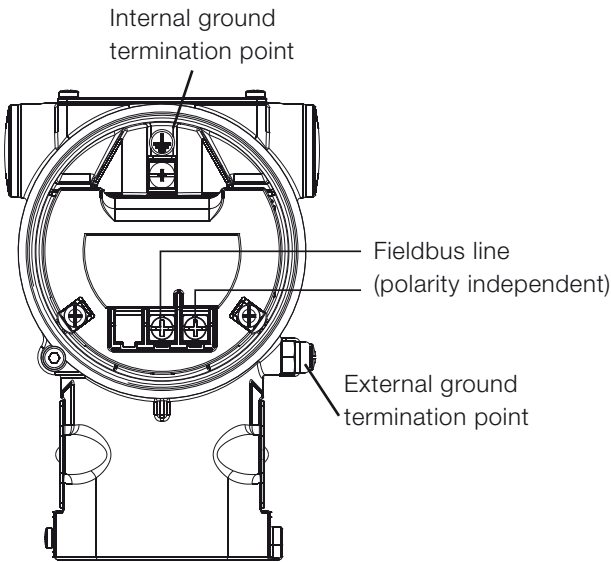
HART hand-held communicator may be connected at any wiring termination point in the loop, providing the minimum resistance is 250 ohm. If this is less than 250 ohm, additional resistance should be added to allow communications.

FIELDBUS Versions



PIN (male) IDENTIFICATION		
	FOUNDATION Fieldbus	PROFIBUS PA
1	DATA -	DATA +
2	DATA +	GROUND
3	SHIELD	DATA -
4	GROUND	SHIELD

CONNECTOR IS SUPPLIED LOOSE
WITHOUT MATING FEMALE PLUG



Ordering information

BASIC ORDERING INFORMATION model 266DSH Differential Pressure Transmitter

Select one character or set of characters from each category and specify complete catalog number.

Refer to additional ordering information and specify one or more codes for each transmitter if additional options are required.

BASE MODEL - 1st to 6th characters				2	6	D	S	H	X	S	X	X	X	X	X
Differential Pressure Transmitter – BASE ACCURACY 0.06 %															
SENSOR - Span limits - 7th character															
0.05 and 1 kPa	0.5 and 10 mbar	0.2 and 4 inH ₂ O	(Note 21)						A						
0.2 and 4 kPa	2 and 40 mbar	0.8 and 16 inH ₂ O	(Note 21)						B						
0.54 and 16 kPa	5.4 and 160 mbar	2.16 and 64 inH ₂ O	(Note 21)						E						
0.4 and 40 kPa	4 and 400 mbar	1.6 and 160 inH ₂ O							F						
0.65 and 65 kPa	6.5 and 650 mbar	2.6 and 260 inH ₂ O							G						
1.6 and 160 kPa	16 and 1600 mbar	6.4 and 642 inH ₂ O							H						
6 and 600 kPa	0.06 and 6 bar	0.87 and 87 psi							M						
24 and 2400 kPa	0.24 and 24 bar	3.5 and 348 psi							P						
80 and 8000 kPa	0.8 and 80 bar	11.6 and 1160 psi							Q						
160 and 16000 kPa	1.6 and 160 bar	23.2 and 2320 psi	(Note 21)						S						
Static pressure - 8th character															
Standard static pressure										S					
High static pressure										H					
Diaphragm material / Fill fluid (wetted parts) - 9th character															
AISI 316 L ss		Silicone oil	(Note 2)						NACE	S					
Hastelloy C-276™ (on AISI seat)		Silicone oil	(Note 20, 21)						NACE	H					
Hastelloy C-276™		Silicone oil							NACE	K					
Monel 400™		Silicone oil	(Notes 2, 21)						NACE	M					
AISI 316 L ss gold plated		Silicone oil	(Notes 2, 21)						NACE	8					
Tantalum		Silicone oil	(Notes 2, 21)						NACE	T					
AISI 316 L ss		Inert fluid - Galden	(Notes 1, 2, 21)						NACE	A					
Hastelloy C-276™		Inert fluid - Galden	(Notes 1, 2, 21)						NACE	F					
Monel 400™		Inert fluid - Galden	(Notes 1, 2, 21)						NACE	C					
AISI 316 L ss gold plated		Inert fluid - Galden	(Notes 1, 2, 21)						NACE	9					
Tantalum		Inert fluid - Galden	(Notes 1, 2, 21)						NACE	D					
AISI 316 L ss		Inert fluid - Halocarbon	(Notes 1, 2)						NACE	L					
Hastelloy C-276™		Inert fluid - Halocarbon	(Notes 1, 2)						NACE	P					
Monel 400™		Inert fluid - Halocarbon	(Notes 1, 2, 21)						NACE	4					
AISI 316 L ss gold plated		Inert fluid - Halocarbon	(Notes 1, 2, 21)						NACE	I					
Tantalum		Inert fluid - Halocarbon	(Notes 1, 2, 21)						NACE	5					

continued
see next page

Model 266DSH Differential

Model 266PSH Gauge

Model 266VSH Absolute

BASIC ORDERING INFORMATION model 266DSH Differential Pressure Transmitter							2	6	D	S	H	X	S	X	X	X
Process flanges/adapters material and connection (wetted parts) - 10 th character																
AISI 316 L ss (Horizontal connection)	1/4 – 18 NPT-f direct					NACE									A	
AISI 316 L ss (Horizontal connection)	1/2 – 14 NPT-f through adapter					NACE									B	
Hastelloy C-276™ (Horizontal connection)	1/4 – 18 NPT-f direct	(Notes 3, 21)				NACE									D	
Hastelloy C-276™ (Horizontal connection)	1/2 – 14 NPT-f through adapter	(Notes 3, 21)				NACE									E	
Monel 400™ (Horizontal connection)	1/4 – 18 NPT-f direct	(Notes 3, 4, 21)				NACE									G	
Monel 400™ (Horizontal connection)	1/2 – 14 NPT-f through adapter	(Notes 3, 4, 21)				NACE									H	
AISI 316 L ss (Vertical connection)	1/4 – 18 NPT-f direct	(Note 21)				NACE									Q	
AISI 316 L ss (Vertical connection)	1/2 – 14 NPT-f through adapter	(Note 21)				NACE									T	
Hastelloy C-276™ (Vertical connection)	1/4 – 18 NPT-f direct	(Notes 3, 21)				NACE									M	
Hastelloy C-276™ (Vertical connection)	1/2 – 14 NPT-f through adapter	(Notes 3, 21)				NACE									S	
Monel 400™ (Vertical connection)	1/4 – 18 NPT-f direct	(Notes 3, 4, 21)				NACE									U	
Monel 400™ (Vertical connection)	1/2 – 14 NPT-f through adapter	(Notes 3, 4, 21)				NACE									V	
PVDF Kynar™ insert on AISI 316 ss flange side	1/4 – 18 NPT-f direct	(Notes 5, 6, 21)													P	
PVDF Kynar™ insert on AISI 316 ss flange side	1/2 – 14 NPT-f direct	(Notes 5, 6, 21)													Z	
Bolts/Gasket (wetted parts) - 11 th character																
For standard static	AISI 316 ss	Viton™	(Notes 4, 7)												1	
and high static versions	AISI 316 ss	PTFE	(Notes 1, 4, 7)												2	
For standard static version	AISI 316 ss – MWP = 16 MPa	Viton™	(Note 7)			NACE									3	
	AISI 316 ss – MWP = 16 MPa	PTFE	(Notes 1, 7)			NACE									4	
For high static version	Stainless steel – MWP = 42 MPa	Viton™	(Note 7)			NACE									3	
	Stainless steel – MWP = 42 MPa	PTFE	(Notes 1, 7)			NACE									4	
For standard static	Alloy steel	Viton™	(Notes 4, 7)			NACE									8	
and high static versions	Alloy steel	PTFE	(Notes 1, 4, 7)			NACE									9	
For PVDF Kynar process connection	AISI 316 ss spring loaded – MWP = 1 MPa		(Note 8)												N	
Housing material and electrical connection - 12 th character																
Aluminium alloy (barrel version)	1/2 – 14 NPT															A
Aluminium alloy (barrel version)	M20 x 1.5 (CM 20)															B
Aluminium alloy (barrel version)	Harting Han 8D connector		(general purpose only)							(Note 9)						E
Aluminium alloy (barrel version)	Fieldbus connector		(general purpose only)							(Note 9)						G
AISI 316 L ss (barrel version)	1/2 – 14 NPT															S
AISI 316 L ss (barrel version)	M20 x 1.5 (CM20)															T
AISI 316 L ss (barrel version)	Fieldbus connector		(general purpose only)							(Note 9)						Z
Aluminium alloy (DIN version)	M20 x 1.5 (CM20)		(not Ex d or XP)													J
Aluminium alloy (DIN version)	Harting Han 8D connector		(general purpose only)							(Note 9)						K
Aluminium alloy (DIN version)	Fieldbus connector		(general purpose only)							(Note 9)						W
Output/Additional options - 13 th character																
HART digital communication and 4 to 20 mA	No additional options									(Notes 10, 11)						H
HART digital communication and 4 to 20 mA	Options requested by “Additional ordering code”									(Note 10)						1
PROFIBUS PA	No additional options									(Notes 10, 11)						P
PROFIBUS PA	Options requested by “Additional ordering code”									(Note 11)						2
FOUNDATION Fieldbus	No additional options									(Notes 10, 11)						F
FOUNDATION Fieldbus	Options requested by “Additional ordering code”									(Note 11)						3
HART and 4 to 20 mA Safety - certified to IEC 61508	No additional options									(Notes 10, 11)						T
HART and 4 to 20 mA Safety - certified to IEC 61508	Options requested by “Additional ordering code”									(Note 10)						8

ADDITIONAL ORDERING INFORMATION for model 266DSH

Add one or more 2-digit code(s) after the basic ordering information to select all required options

				XX	XX	XX
Accuracy						
0.04 % accuracy for applicable ranges			(Notes 7, 21, 22)	D2		
Drain/vent valve (material and position) (wetted parts)						
AISI 316 L ss	on process axis	(Notes 7, 12)	NACE		V1	
AISI 316 L ss	on flange side top	(Notes 7, 13, 21)	NACE		V2	
AISI 316 L ss	on flange side bottom	(Notes 7, 13, 21)	NACE		V3	
Hastelloy C-276™	on process axis	(Notes 7, 14)	NACE		V4	
Hastelloy C-276™	on flange side top	(Notes 7, 15, 21)	NACE		V5	
Hastelloy C-276™	on flange side bottom	(Notes 7, 15, 21)	NACE		V6	
Monel 400™	on process axis	(Notes 7, 16, 21)	NACE		V7	
Monel 400™	on flange side top	(Notes 7, 17, 21)	NACE		V8	
Monel 400™	on flange side bottom	(Notes 7, 17, 21)	NACE		V9	
Hazardous area certifications						
ATEX Intrinsic Safety II 1 G and II 1/2 G Ex ia IIC T6; II 1 D Ex iaD 20 T 95 °C and II 1/2D Ex iaD 21 T95 °C			(Notes 10, 11)		E1	
ATEX Explosion Proof Group II Category 1/2 G Ex d IIC T6 and Group II Category 1/2 D Ex tD A21 IP67 T85 °C			(Notes 10, 11, 18)		E2	
ATEX Type „N“ Group II Category 3 G Ex nL IIC T6 and Group II Category 3 D Ex tD A22 IP67 T85 °C			(Notes 10, 11)		E3	
Combined ATEX - Intrinsic Safety, Explosion Proof and Type „N“			(Notes 10, 11, 18)		EW	
Combined ATEX - Intrinsic Safety and Explosion Proof			(Notes 10, 11, 18)		E7	
Combined ATEX, FM Approvals (USA) and FM Approvals (Canada)			(Notes 10, 11, 18)		EN	
FM Approvals (Canada) approval			(Notes 10, 11, 18)		E4	
FM Approvals (USA) approval			(Notes 10, 11, 18)		E6	
FM Approvals (USA and Canada) Intrinsic Safety			(Notes 10, 11)		EA	
FM Approvals (USA and Canada) Explosion Proof			(Notes 10, 11, 18)		EB	
FM Approvals (USA and Canada) Nonincendive			(Notes 10, 11)		EC	
IEC Intrinsic Safety II 1 G and II 1/2 G Ex ia IIC T6; II 1 D Ex iaD 20 T 95 °C and II 1/2D Ex iaD 21 T95 °C;			(Notes 10, 11)		E8	
IEC Explosion Proof Group II Category 1/2 G Ex d IIC T6 and Group II Category 1/2 D Ex tD A21 IP67 T85 °C			(Notes 10, 11, 18)		E9	
IEC Group II Category 3 G Ex nL IIC T6 and Group II Category 3 D Ex tD A22 IP67 T85 °C			(Notes 10, 11)		ER	
Combined IEC - Intrinsic Safety, Explosion Proof and Type „N“			(Notes 10, 11, 18)		EI	
Combined IEC - Intrinsic Safety and Explosion Proof			(Notes 10, 11, 18)		EH	
NEPSI Intrinsic Safety Ex ia IIC T4~T6, DIP A20TA, T4~T6			(Notes 10, 11)		EY	
NEPSI Explosion Proof Ex d IIC T6, DIP A21TA, T6			(Notes 10, 11, 18)		EZ	
NEPSI Type „N“ Ex nL IIC T4~T6, DIP A22TA, T6			(Notes 10, 11)		ES	
Combined NEPSI - Intrinsic Safety, Explosion Proof and Type „N“			(Notes 10, 11, 18)		EQ	
Combined NEPSI - Intrinsic Safety and Explosion Proof			(Notes 10, 11, 18)		EP	

Model 266DSH Differential

Model 266PSH Gauge

Model 266VSH Absolute

ADDITIONAL ORDERING INFORMATION for model 266DSH		XX	XX	XX	XX	XX
Other hazardous area certifications (ONLY AS ALTERNATIVE TO BASIC CERTIFICATION CODE Ex)						
GOST (Russia) Ex ia	(Notes 10, 11) W1					
GOST (Russia) Ex d	(Notes 10, 11, 18) W2					
GOST (Kazakhstan) Ex ia	(Notes 10, 11) W3					
GOST (Kazakhstan) Ex d	(Notes 10, 11, 18) W4					
Inmetro (Brazil) Ex ia	(Notes 10, 11) W5					
Inmetro (Brazil) Ex d	(Notes 10, 11, 18) W6					
Inmetro (Brazil) Ex nL	(Notes 10, 11) W7					
Combined Inmetro (Brazil) - Intrinsic Safety, Explosion Proof and Type „N“	(Notes 10, 11, 18) W8					
GOST (Belarus) Ex ia	(Notes 10, 11) WF					
GOST (Belarus) Ex d	(Notes 10, 11, 18) WG					
Combined GOST (Belarus) - Intrinsic Safety and Explosion Proof	(Notes 10, 11, 18) WH					
Integral LCD						
Digital LCD integral display			L1			
TTG (Through-The-Glass) digital LCD controlled display			L5			
Mounting bracket (shape and material)						
For pipe mounting - Carbon steel	(Not suitable for AISI housing)				B1	
For pipe mounting - AISI 316 L ss	(Not suitable for AISI housing)				B2	
For wall mounting - Carbon steel	(Not suitable for AISI housing)				B3	
For wall mounting - AISI 316 L ss	(Not suitable for AISI housing)				B4	
Flat type for box - AISI 316 ss					B5	
Surge						
Surge/Transient Protector					S2	
Operating manual (up to 2 different selections allowed)						
German (ONLY FOR HART and PROFIBUS VERSIONS)						M1
Italian (ONLY FOR HART VERSION)						M2
Spanish (ONLY FOR HART VERSION)						M3
French (ONLY FOR HART VERSION)						M4
English						M5
Chinese (ONLY FOR HART VERSION)						M6
Swedish (ONLY FOR HART VERSION)						M7
Polish (ONLY FOR HART VERSION)						M9
Portuguese (ONLY FOR HART VERSION)						MA
Turkish (ONLY FOR HART VERSION)						MT

ADDITIONAL ORDERING INFORMATION for model 266DSH					XX	XX	XX	XX	XX
Plates language									
German					T1				
Italian					T2				
Spanish					T3				
French					T4				
Additional tag plate									
Supplemental wired-on stainless steel plate					I1				
Laser printing of tag on stainless steel plate					I2				
Configuration									
Standard – Pressure = inH2O/ psi at 68 °F; Temperature = deg. F							N2		
Standard – Pressure = inH2O/ psi at 39.2 °F; Temperature = deg. F							N3		
Standard – Pressure = inH2O/ psi at 20 °C; Temperature = deg. C							N4		
Standard – Pressure = inH2O/ psi at 4 °C; Temperature = deg. C							N5		
Custom							N6		
Preparation procedure									
Oxygen service cleaning (only available with inert fill and PTFE gasket)					(Note 21)			P1	
Pmax =12 MPa for Galden, 9 MPa for Halocarbon; Tmax=60 °C/140 °F									
Certificates (up to 2 different selections allowed)									
Inspection certificate EN 10204–3.1 of calibration (9-point)									C1
Inspection certificate EN 10204–3.1 of the cleanliness stage									C3
Inspection certificate EN 10204–3.1 of helium leakage test of the sensor module									C4
Inspection certificate EN 10204–3.1 of the pressure test									C5
Certificate of compliance with the order EN 10204–2.1 of instrument design									C6
Overfill protection									C9
Printed record of configured data of transmitter									CG
PMI test of wetted parts									CT

Model 266DSH Differential

Model 266PSH Gauge

Model 266VSH Absolute

ADDITIONAL ORDERING INFORMATION FOR MODEL 266DSH		XX	XX	XX	XX
Approvals					
GOST (Russia) without Ex	(NOT APPLICABLE WITH ANY HAZARDOUS AREA CERTIFICATION)	Y1			
GOST (Kazakhstan) without Ex	(NOT APPLICABLE WITH ANY HAZARDOUS AREA CERTIFICATION)	Y2			
GOST (Belarus) without Ex	(NOT APPLICABLE WITH ANY HAZARDOUS AREA CERTIFICATION)	Y4			
Chinese pattern without Ex	(NOT APPLICABLE WITH ANY HAZARDOUS AREA CERTIFICATION)	Y5			
DNV approval			YA		
Lloyd approval (PENDING)			YB		
Approval for Custody transfer (PENDING)			YC		
Material traceability					
Certificate of compliance with the order EN 10204–2.1 of process wetted parts					H1
Inspection certificate EN 10204–3.1 of process wetted parts					H3
Test report EN 10204–2.2 of pressure bearing and process wetted parts					H4
Connector					
Fieldbus 7/8 in. (Recommended for FOUNDATION Fieldbus) - (supplied loose without mating female plug)		(Notes 11, 19)			U1
Fieldbus M12x1 (Recommended for PROFIBUS PA) - (supplied loose without mating female plug)		(Notes 11, 19)			U2
Harting Han 8D – straight entry - (supplied loose)		(Notes 10, 19)			U3
Harting Han 8D – angle entry - (supplied loose)		(Notes 10, 19)			U4

Note 1: Suitable for oxygen service
 Note 2: Not available with sensor code A and B
 Note 3: Not available with AISI 316L ss or Hastelloy C-276 (on AISI seat) diaphragms code S, H, A, L
 Note 4: Not available with sensor code A
 Note 5: Not available with Diaphragm material/Fill fluid code S, H, K, M, A, F, C, L, P, 4
 Note 6: Not available with sensor code A, Q, S
 Note 7: Not available with Process Flanges/Adapters material/connection code P, Z
 Note 8: Not available with Process Flanges/Adapters material/connection code A, B, D, E, G, H, Q, T, M, S, U, V
 Note 9: Select type in additional ordering code
 Note 10: Not available with Housing code G, Z, W
 Note 11: Not available with Housing code E, K
 Note 12: Not available with Process flanges/adapters material/connection code D, E, G, H, Q, T, M, S, U, V
 Note 13: Not available with Process flanges/adapters material/connection code D, E, G, H, M, S, U, V
 Note 14: Not available with Process flanges/adapters material/connection code A, B, G, H, Q, T, M, S, U, V
 Note 15: Not available with Process flanges/adapters material/connection code A, B, G, H, Q, T, U, V
 Note 16: Not available with Process flanges/adapters material/connection code A, B, D, E, Q, T, M, S, U, V
 Note 17: Not available with Process flanges/adapters material/connection code A, B, D, E, Q, T, M, S
 Note 18: Not available with Housing code J, K, W
 Note 19: Not available with Housing code A, B, S, T, J
 Note 20: Not available with sensor code E, F, G, H, M, P, Q, and S
 Note 21: Not available with high static pressure code H
 Note 22: Not available with sensor code A, B, S

Standard delivery items (can be differently specified by additional ordering code)

- Adapters supplied loose
- Plug on axis of horizontal connection flange; nothing for PVDF Kynar insert and for vertical connection flange (no drain/vent valves)
- General purpose (no electrical certification)
- No display, no mounting bracket, no surge protection
- Multilanguage short-form operating instruction manual and labels in english
- Configuration with kPa and deg. C units
- No test, inspection or material traceability certificates

BASIC ORDERING INFORMATION model 266PSH Gauge Pressure Transmitter

Select one character or set of characters from each category and specify complete catalog number.

Refer to additional ordering information and specify one or more codes for each transmitter if additional options are required.

BASE MODEL - 1 st to 6 th characters				2	6	P	S	H	X	S	X	X	X	X	X
Gauge Pressure Transmitter – BASE ACCURACY 0.06 %															
SENSOR - Span limits - 7 th character															
0.05 and 1 kPa	0.5 and 10 mbar	0.2 and 4 inH2O							A						
0.2 and 4 kPa	2 and 40 mbar	0.8 and 16 inH2O							B						
0.54 and 16 kPa	5.4 and 160 mbar	2.16 and 64 inH2O							E						
0.4 and 40 kPa	4 and 400 mbar	1.6 and 160 inH2O							F						
0.65 and 65 kPa	6.5 and 650 mbar	2.6 and 260 inH2O							G						
1.6 and 160 kPa	16 and 1600 mbar	6.4 and 642 inH2O							H						
6 and 600 kPa	0.06 and 6 bar	0.87 and 87 psi							M						
24 and 2400 kPa	0.24 and 24 bar	3.5 and 348 psi							P						
80 and 8000 kPa	0.8 and 80 bar	11.6 and 1160 psi							Q						
160 and 16000 kPa	1.6 and 160 bar	23.2 and 2320 psi							S						
Use code - 8 th character										S					
Diaphragm material / Fill fluid (wetted parts) - 9 th character															
AISI 316 L ss	Silicone oil	(Note 2)							NACE	S					
Hastelloy C-276™ (on AISI seat)	Silicone oil	(Note 20)							NACE	H					
Hastelloy C-276™	Silicone oil								NACE	K					
Monel 400™	Silicone oil	(Note 2)							NACE	M					
AISI 316 L ss gold plated	Silicone oil	(Note 2)							NACE	8					
Tantalum	Silicone oil	(Note 2)							NACE	T					
AISI 316 L ss	Inert fluid - Galden	(Notes 1, 2)							NACE	A					
Hastelloy C-276™	Inert fluid - Galden	(Notes 1, 2)							NACE	F					
Monel 400™	Inert fluid - Galden	(Notes 1, 2)							NACE	C					
AISI 316 L ss gold plated	Inert fluid - Galden	(Notes 1, 2)							NACE	9					
Tantalum	Inert fluid - Galden	(Notes 1, 2)							NACE	D					
AISI 316 L ss	Inert fluid - Halocarbon	(Notes 1, 2)							NACE	L					
Hastelloy C-276™	Inert fluid - Halocarbon	(Notes 1, 2)							NACE	P					
Monel 400™	Inert fluid - Halocarbon	(Notes 1, 2)							NACE	4					
AISI 316 L ss gold plated	Inert fluid - Halocarbon	(Notes 1, 2)							NACE	I					
Tantalum	Inert fluid - Halocarbon	(Notes 1, 2)							NACE	5					

continued
see next page

Model 266DSH Differential

Model 266PSH Gauge

Model 266VSH Absolute

BASIC ORDERING INFORMATION model 266PSH Differential Pressure Transmitter				2 6 6 P S H X S X	X	X	X	X
Process flanges/adapters material and connection (wetted parts) - 10th character								
AISI 316 L ss (Horizontal connection)	1/4 – 18 NPT-f direct		NACE	A				
AISI 316 L ss (Horizontal connection)	1/2 – 14 NPT-f through adapter		NACE	B				
Hastelloy C-276™ (Horizontal connection)	1/4 – 18 NPT-f direct	(Note 3)	NACE	D				
Hastelloy C-276™ (Horizontal connection)	1/2 – 14 NPT-f through adapter	(Note 3)	NACE	E				
Monel 400™ (Horizontal connection)	1/4 – 18 NPT-f direct	(Notes 3, 4)	NACE	G				
Monel 400™ (Horizontal connection)	1/2 – 14 NPT-f through adapter	(Notes 3, 4)	NACE	H				
AISI 316 L ss (Vertical connection)	1/4 – 18 NPT-f direct		NACE	Q				
AISI 316 L ss (Vertical connection)	1/2 – 14 NPT-f through adapter		NACE	T				
Hastelloy C-276™ (Vertical connection)	1/4 – 18 NPT-f direct	(Note 3)	NACE	M				
Hastelloy C-276™ (Vertical connection)	1/2 – 14 NPT-f through adapter	(Note 3)	NACE	S				
Monel 400™ (Vertical connection)	1/4 – 18 NPT-f direct	(Notes 3, 4)	NACE	U				
Monel 400™ (Vertical connection)	1/2 – 14 NPT-f through adapter	(Notes 3, 4)	NACE	V				
PVDF Kynar™ insert on AISI 316 ss flange side	1/4 – 18 NPT-f direct	(Notes 5, 6)		P				
PVDF Kynar™ insert on AISI 316 ss flange side	1/2 – 14 NPT-f direct	(Notes 5, 6)		Z				
Bolts/Gasket (wetted parts) - 11th character								
AISI 316 ss	Viton™	(Notes 4, 7)			1			
AISI 316 ss	PTFE	(Notes 1, 4, 7)			2			
AISI 316 ss (NACE) – (MWP = 16 MPa)	Viton™	(Note 7)	NACE		3			
AISI 316 ss (NACE) – (MWP = 16 MPa)	PTFE	(Notes 1, 7)	NACE		4			
Alloy steel (NACE)	Viton™	(Notes 4, 7)	NACE		8			
Alloy steel (NACE)	PTFE	(Notes 1, 4, 7)	NACE		9			
AISI 316 ss spring loaded for PVDF Kynar process connection		(Note 8)			N			
Housing material and electrical connection - 12th character								
Aluminium alloy (barrel version)	1/2 – 14 NPT						A	
Aluminium alloy (barrel version)	M20 x 1.5 (CM 20)						B	
Aluminium alloy (barrel version)	Harting Han 8D connector	(general purpose only)		(Note 9)			E	
Aluminium alloy (barrel version)	Fieldbus connector	(general purpose only)		(Note 9)			G	
AISI 316 L ss (barrel version)	1/2 – 14 NPT						S	
AISI 316 L ss (barrel version)	M20 x 1.5 (CM20)						T	
AISI 316 L ss (barrel version)	Fieldbus connector	(general purpose only)		(Note 9)			Z	
Aluminium alloy (DIN version)	M20 x 1.5 (CM20)	(not Ex d or XP)					J	
Aluminium alloy (DIN version)	Harting Han 8D connector	(general purpose only)		(Note 9)			K	
Aluminium alloy (DIN version)	Fieldbus connector	(general purpose only)		(Note 9)			W	
Output/Additional options - 13th character								
HART digital communication and 4 to 20 mA	No additional options			(Notes 10, 11)			H	
HART digital communication and 4 to 20 mA	Options requested by “Additional ordering code”			(Note 10)			1	
PROFIBUS PA	No additional options			(Notes 10, 11)			P	
PROFIBUS PA	Options requested by “Additional ordering code”			(Note 11)			2	
FOUNDATION Fieldbus	No additional options			(Notes 10, 11)			F	
FOUNDATION Fieldbus	Options requested by “Additional ordering code”			(Note 11)			3	
HART and 4 to 20 mA Safety - certified to IEC 61508	No additional options			(Notes 10, 11)			T	
HART and 4 to 20 mA Safety - certified to IEC 61508	Options requested by “Additional ordering code”			(Note 10)			8	

ADDITIONAL ORDERING INFORMATION for model 266PSH

Add one or more 2-digit code(s) after the basic ordering information to select all required options

				XX	XX	XX
Accuracy						
0.04 % accuracy for applicable ranges			(Notes 7, 21)	D2		
Drain/vent valve (material and position) (wetted parts)						
AISI 316 L ss	on process axis	(Notes 7, 12)	NACE		V1	
AISI 316 L ss	on flange side top	(Notes 7, 13, 21)	NACE		V2	
AISI 316 L ss	on flange side bottom	(Notes 7, 13, 21)	NACE		V3	
Hastelloy C-276™	on process axis	(Notes 7, 14)	NACE		V4	
Hastelloy C-276™	on flange side top	(Notes 7, 15, 21)	NACE		V5	
Hastelloy C-276™	on flange side bottom	(Notes 7, 15, 21)	NACE		V6	
Monel 400™	on process axis	(Notes 7, 16, 21)	NACE		V7	
Monel 400™	on flange side top	(Notes 7, 17, 21)	NACE		V8	
Monel 400™	on flange side bottom	(Notes 7, 17, 21)	NACE		V9	
Hazardous area certifications						
ATEX Intrinsic Safety II 1 G and II 1/2 G Ex ia IIC T6; II 1 D Ex iaD 20 T 95 °C and II 1/2D Ex iaD 21 T95 °C			(Notes 10, 11)		E1	
ATEX Explosion Proof Group II Category 1/2 G Ex d IIC T6 and Group II Category 1/2 D Ex tD A21 IP67 T85 °C			(Notes 10, 11, 18)		E2	
ATEX Type „N“ Group II Category 3 G Ex nL IIC T6 and Group II Category 3 D Ex tD A22 IP67 T85 °C			(Notes 10, 11)		E3	
Combined ATEX - Intrinsic Safety, Explosion Proof and Type „N“			(Notes 10, 11, 18)		EW	
Combined ATEX - Intrinsic Safety and Explosion Proof			(Notes 10, 11, 18)		E7	
Combined ATEX, FM Approvals (USA) and FM Approvals (Canada)			(Notes 10, 11, 18)		EN	
FM Approvals (Canada) approval			(Notes 10, 11, 18)		E4	
FM Approvals (USA) approval			(Notes 10, 11, 18)		E6	
FM Approvals (USA and Canada) Intrinsic Safety			(Notes 10, 11)		EA	
FM Approvals (USA and Canada) Explosion Proof			(Notes 10, 11, 18)		EB	
FM Approvals (USA and Canada) Nonincendive			(Notes 10, 11)		EC	
IEC Intrinsic Safety II 1 G and II 1/2 G Ex ia IIC T6; II 1 D Ex iaD 20 T 95 °C and II 1/2D Ex iaD 21 T95 °C;			(Notes 10, 11)		E8	
IEC Explosion Proof Group II Category 1/2 G Ex d IIC T6 and Group II Category 1/2 D Ex tD A21 IP67 T85 °C			(Notes 10, 11, 18)		E9	
IEC Group II Category 3 G Ex nL IIC T6 and Group II Category 3 D Ex tD A22 IP67 T85 °C			(Notes 10, 11)		ER	
Combined IEC - Intrinsic Safety, Explosion Proof and Type „N“			(Notes 10, 11, 18)		EI	
Combined IEC - Intrinsic Safety and Explosion Proof			(Notes 10, 11, 18)		EH	
NEPSI Intrinsic Safety Ex ia IIC T4~T6, DIP A20TA, T4~T6			(Notes 10, 11)		EY	
NEPSI Explosion Proof Ex d IIC T6, DIP A21TA, T6			(Notes 10, 11, 18)		EZ	
NEPSI Type „N“ Ex nL IIC T4~T6, DIP A22TA, T6			(Notes 10, 11)		ES	
Combined NEPSI - Intrinsic Safety, Explosion Proof and Type „N“			(Notes 10, 11, 18)		EQ	
Combined NEPSI - Intrinsic Safety and Explosion Proof			(Notes 10, 11, 18)		EP	

Model 266DSH Differential

Model 266PSH Gauge

Model 266VSH Absolute

ADDITIONAL ORDERING INFORMATION for model 266PSH		XX	XX	XX	XX	XX
Other hazardous area certifications (ONLY AS ALTERNATIVE TO BASIC CERTIFICATION CODE Ex)						
GOST (Russia) Ex ia	(Notes 10, 11) W1					
GOST (Russia) Ex d	(Notes 10, 11, 18) W2					
GOST (Kazakhstan) Ex ia	(Notes 10, 11) W3					
GOST (Kazakhstan) Ex d	(Notes 10, 11, 18) W4					
Inmetro (Brazil) Ex ia	(Notes 10, 11) W5					
Inmetro (Brazil) Ex d	(Notes 10, 11, 18) W6					
Inmetro (Brazil) Ex nL	(Notes 10, 11) W7					
Combined Inmetro (Brazil) - Intrinsic Safety, Explosion Proof and Type „N“	(Notes 10, 11, 18) W8					
GOST (Belarus) Ex ia	(Notes 10, 11) WF					
GOST (Belarus) Ex d	(Notes 10, 11, 18) WG					
Combined GOST (Belarus) - Intrinsic Safety and Explosion Proof	(Notes 10, 11, 18) WH					
Integral LCD						
Digital LCD integral display			L1			
TTG (Through-The-Glass) digital LCD controlled display			L5			
Mounting bracket (shape and material)						
For pipe mounting - Carbon steel	(Not suitable for AISI housing)				B1	
For pipe mounting - AISI 316 L ss	(Not suitable for AISI housing)				B2	
For wall mounting - Carbon steel	(Not suitable for AISI housing)				B3	
For wall mounting - AISI 316 L ss	(Not suitable for AISI housing)				B4	
Flat type for box - AISI 316 ss					B5	
Surge						
Surge/Transient Protector					S2	
Operating manual (up to 2 different selections allowed)						
German (ONLY FOR HART and PROFIBUS VERSIONS)						M1
Italian (ONLY FOR HART VERSION)						M2
Spanish (ONLY FOR HART VERSION)						M3
French (ONLY FOR HART VERSION)						M4
English						M5
Chinese (ONLY FOR HART VERSION)						M6
Swedish (ONLY FOR HART VERSION)						M7
Polish (ONLY FOR HART VERSION)						M9
Portuguese (ONLY FOR HART VERSION)						MA
Turkish (ONLY FOR HART VERSION)						MT

ADDITIONAL ORDERING INFORMATION for model 266PSH					XX	XX	XX	XX	XX
Plates language									
German					T1				
Italian					T2				
Spanish					T3				
French					T4				
Additional tag plate									
Supplemental wired-on stainless steel plate					I1				
Laser printing of tag on stainless steel plate					I2				
Configuration									
Standard – Pressure = inH2O/ psi at 68 °F; Temperature = deg. F							N2		
Standard – Pressure = inH2O/ psi at 39.2 °F; Temperature = deg. F							N3		
Standard – Pressure = inH2O/ psi at 20 °C; Temperature = deg. C							N4		
Standard – Pressure = inH2O/ psi at 4 °C; Temperature = deg. C							N5		
Custom							N6		
Preparation procedure									
Oxygen service cleaning (only available with inert fill and PTFE gasket)						(Note 21)		P1	
Pmax =12 MPa for Galden, 9 MPa for Halocarbon; Tmax=60 °C/140 °F									
Certificates (up to 2 different selections allowed)									
Inspection certificate EN 10204–3.1 of calibration (9-point)									C1
Inspection certificate EN 10204–3.1 of the cleanliness stage									C3
Inspection certificate EN 10204–3.1 of helium leakage test of the sensor module									C4
Inspection certificate EN 10204–3.1 of the pressure test									C5
Certificate of compliance with the order EN 10204–2.1 of instrument design									C6
Overfill protection									C9
Printed record of configured data of transmitter									CG
PMI test of wetted parts									CT

Model 266DSH Differential

Model 266PSH Gauge

Model 266VSH Absolute

ADDITIONAL ORDERING INFORMATION FOR MODEL 266PSH		XX	XX	XX	XX
Approvals					
GOST (Russia) without Ex	(NOT APPLICABLE WITH ANY HAZARDOUS AREA CERTIFICATION)	Y1			
GOST (Kazakhstan) without Ex	(NOT APPLICABLE WITH ANY HAZARDOUS AREA CERTIFICATION)	Y2			
GOST (Belarus) without Ex	(NOT APPLICABLE WITH ANY HAZARDOUS AREA CERTIFICATION)	Y4			
Chinese pattern without Ex	(NOT APPLICABLE WITH ANY HAZARDOUS AREA CERTIFICATION)	Y5			
DNV approval			YA		
Lloyd approval (PENDING)			YB		
Approval for Custody transfer (PENDING)			YC		
Material traceability					
Certificate of compliance with the order EN 10204–2.1 of process wetted parts				H1	
Inspection certificate EN 10204–3.1 of process wetted parts				H3	
Test report EN 10204–2.2 of pressure bearing and process wetted parts				H4	
Connector					
Fieldbus 7/8 in. (Recommended for FOUNDATION Fieldbus) - (supplied loose without mating female plug)		(Notes 11, 19)			U1
Fieldbus M12x1 (Recommended for PROFIBUS PA) - (supplied loose without mating female plug)		(Notes 11, 19)			U2
Harting Han 8D – straight entry - (supplied loose)		(Notes 10, 19)			U3
Harting Han 8D – angle entry - (supplied loose)		(Notes 10, 19)			U4

Note 1: Suitable for oxygen service
 Note 2: Not available with sensor code A and B
 Note 3: Not available with AISI 316L ss or Hastelloy C-276 (on AISI seat) diaphragms code S, H, A, L
 Note 4: Not available with sensor code A
 Note 5: Not available with Diaphragm material/Fill fluid code S, H, K, M, A, F, C, L, P, 4
 Note 6: Not available with sensor code A, Q, S
 Note 7: Not available with Process Flanges/Adapters material/connection code P, Z
 Note 8: Not available with Process Flanges/Adapters material/connection code A, B, D, E, G, H, Q, T, M, S, U, V
 Note 9: Select type in additional ordering code
 Note 10: Not available with Housing code G, Z, W
 Note 11: Not available with Housing code E, K
 Note 12: Not available with Process flanges/adapters material/connection code D, E, G, H, Q, T, M, S, U, V
 Note 13: Not available with Process flanges/adapters material/connection code D, E, G, H, M, S, U, V
 Note 14: Not available with Process flanges/adapters material/connection code A, B, G, H, Q, T, M, S, U, V
 Note 15: Not available with Process flanges/adapters material/connection code A, B, G, H, Q, T, U, V
 Note 16: Not available with Process flanges/adapters material/connection code A, B, D, E, Q, T, M, S, U, V
 Note 17: Not available with Process flanges/adapters material/connection code A, B, D, E, Q, T, M, S
 Note 18: Not available with Housing code J, K, W
 Note 19: Not available with Housing code A, B, S, T, J
 Note 20: Not available with sensor code E, F, G, H, M, P, Q, and S
 Note 21: Not available with sensor code A, B, S

Standard delivery items (can be differently specified by additional ordering code)

- Adapters supplied loose
- Plug on axis of horizontal connection flange; nothing for PVDF Kynar insert and for vertical connection flange (no drain/vent valves)
- General purpose (no electrical certification)
- No display, no mounting bracket, no surge protection
- Multilanguage short-form operating instruction manual and labels in english
- Configuration with kPa and deg. C units
- No test, inspection or material traceability certificates

BASIC ORDERING INFORMATION model 266VSH Absolute Pressure Transmitter

Select one character or set of characters from each category and specify complete catalog number.

Refer to additional ordering information and specify one or more codes for each transmitter if additional options are required.

BASE MODEL - 1 st to 6 th characters						2 6 6 V S H	X	S	X	X	X	X	X
Absolute Pressure Transmitter – BASE ACCURACY 0.075 %													
SENSOR - Span limits - 7 th character													
0.54 and 16 kPa	5.4 and 160 mbar	4 and 120 mmHg					E						
0.67 and 40 kPa	6.7 and 400 mbar	5 and 300 mmHg					F						
1.1 and 65 kPa	11 and 650 mbar	8 and 480 mmHg					G						
2.67 and 160 kPa	26.7 and 1600 mbar	20 and 1200 mmHg					H						
10 and 600 kPa	0.1 and 6 bar	1.45 and 87 psi					M						
40 and 2400 kPa	0.4 and 24 bar	5.8 and 348 psi					P						
134 and 8000 kPa	1.34 and 80 bar	19.4 and 1160 psi					Q						
267 and 16000 kPa	2.67 and 160 bar	38.7 and 2320 psi					S						
Use code - 8 th character								S					
Diaphragm material / Fill fluid (wetted parts) - 9 th character													
AISI 316 L ss		Silicone oil					NACE	S					
Hastelloy C-276™		Silicone oil					NACE	K					
AISI 316 L ss		Inert fluid - Galden	(Notes 1, 2)				NACE	A					
Hastelloy C-276™		Inert fluid - Galden	(Notes 1, 2)				NACE	F					
AISI 316 L ss		Inert fluid - Halocarbon	(Notes 1, 2)				NACE	L					
Hastelloy C-276™		Inert fluid - Halocarbon	(Notes 1, 2)				NACE	P					

continued
see next page

Model 266DSH Differential

Model 266PSH Gauge

Model 266VSH Absolute

BASIC ORDERING INFORMATION model 266VSH Absolute Pressure Transmitter				2	6	V	S	H	X	S	X	X	X
Process flanges/adapters material and connection (wetted parts) - 10th character													
AISI 316 L ss (Horizontal connection)	1/4 – 18 NPT-f direct		NACE								A		
AISI 316 L ss (Horizontal connection)	1/2 – 14 NPT-f through adapter		NACE								B		
Hastelloy C-276™ (Horizontal connection)	1/4 – 18 NPT-f direct	(Note 3)	NACE								D		
Hastelloy C-276™ (Horizontal connection)	1/2 – 14 NPT-f through adapter	(Note 3)	NACE								E		
Monel 400™ (Horizontal connection)	1/4 – 18 NPT-f direct	(Note 3)	NACE								G		
Monel 400™ (Horizontal connection)	1/2 – 14 NPT-f through adapter	(Note 3)	NACE								H		
AISI 316 L ss (Vertical connection)	1/4 – 18 NPT-f direct		NACE								Q		
AISI 316 L ss (Vertical connection)	1/2 – 14 NPT-f through adapter		NACE								T		
Hastelloy C-276™ (Vertical connection)	1/4 – 18 NPT-f direct	(Note 3)	NACE								M		
Hastelloy C-276™ (Vertical connection)	1/2 – 14 NPT-f through adapter	(Note 3)	NACE								S		
Monel 400™ (Vertical connection)	1/4 – 18 NPT-f direct	(Note 3)	NACE								U		
Monel 400™ (Vertical connection)	1/2 – 14 NPT-f through adapter	(Note 3)	NACE								V		
Bolts/Gasket (wetted parts) - 11th character													
AISI 316 ss	Viton™											1	
AISI 316 ss	PTFE	(Note 1)										2	
AISI 316 ss (NACE) – (MWP = 16 MPa)	Viton™		NACE									3	
AISI 316 ss (NACE) – (MWP = 16 MPa)	PTFE	(Note 1)	NACE									4	
Alloy steel (NACE)	Viton™		NACE									8	
Alloy steel (NACE)	PTFE	(Note 1)	NACE									9	
Housing material and electrical connection - 12th character													
Aluminium alloy (barrel version)	1/2 – 14 NPT												A
Aluminium alloy (barrel version)	M20 x 1.5 (CM 20)												B
Aluminium alloy (barrel version)	Harting Han 8D connector	(general purpose only)							(Note 4)				E
Aluminium alloy (barrel version)	Fieldbus connector	(general purpose only)							(Note 4)				G
AISI 316 L ss (barrel version)	1/2 – 14 NPT												S
AISI 316 L ss (barrel version)	M20 x 1.5 (CM20)												T
AISI 316 L ss (barrel version)	Fieldbus connector	(general purpose only)							(Note 4)				Z
Aluminium alloy (DIN version)	M20 x 1.5 (CM20)	(not Ex d or XP)											J
Aluminium alloy (DIN version)	Harting Han 8D connector	(general purpose only)							(Note 4)				K
Aluminium alloy (DIN version)	Fieldbus connector	(general purpose only)							(Note 4)				W
Output/Additional options - 13th character													
HART digital communication and 4 to 20 mA	No additional options								(Notes 5, 6)				H
HART digital communication and 4 to 20 mA	Options requested by “Additional ordering code”								(Note 5)				1
PROFIBUS PA	No additional options								(Notes 5, 6)				P
PROFIBUS PA	Options requested by “Additional ordering code”								(Note 6)				2
FOUNDATION Fieldbus	No additional options								(Notes 5, 6)				F
FOUNDATION Fieldbus	Options requested by “Additional ordering code”								(Note 6)				3
HART and 4 to 20 mA Safety - certified to IEC 61508	No additional options								(Notes 5, 6)				T
HART and 4 to 20 mA Safety - certified to IEC 61508	Options requested by “Additional ordering code”								(Note 5)				8

ADDITIONAL ORDERING INFORMATION for model 266VSH

Add one or more 2-digit code(s) after the basic ordering information to select all required options

				XX	XX
Drain/vent valve (material and position) (wetted parts)					
AISI 316 L ss	on process axis	(Note 7)	NACE	V1	
AISI 316 L ss	on flange side top	(Note 8)	NACE	V2	
AISI 316 L ss	on flange side bottom	(Note 8)	NACE	V3	
Hastelloy C-276™	on process axis	(Note 9)	NACE	V4	
Hastelloy C-276™	on flange side top	(Note 10)	NACE	V5	
Hastelloy C-276™	on flange side bottom	(Note 10)	NACE	V6	
Monel 400™	on process axis	(Note 11)	NACE	V7	
Monel 400™	on flange side top	(Note 12)	NACE	V8	
Monel 400™	on flange side bottom	(Note 12)	NACE	V9	
Hazardous area certifications					
ATEX Intrinsic Safety II 1 G and II 1/2 G Ex ia IIC T6; II 1 D Ex iaD 20 T 95 °C and II 1/2D Ex iaD 21 T95 °C			(Notes 5, 6)		E1
ATEX Explosion Proof Group II Category 1/2 G Ex d IIC T6 and Group II Category 1/2 D Ex tD A21 IP67 T85 °C			(Notes 5, 6, 13)		E2
ATEX Type „N“ Group II Category 3 G Ex nL IIC T6 and Group II Category 3 D Ex tD A22 IP67 T85 °C			(Notes 5, 6)		E3
Combined ATEX - Intrinsic Safety, Explosion Proof and Type „N“			(Notes 5, 6, 13)		EW
Combined ATEX - Intrinsic Safety and Explosion Proof			(Notes 5, 6, 13)		E7
Combined ATEX, FM Approvals (USA) and FM Approvals (Canada)			(Notes 5, 6, 13)		EN
FM Approvals (Canada) approval			(Notes 5, 6, 13)		E4
FM Approvals (USA) approval			(Notes 5, 6, 13)		E6
FM Approvals (USA and Canada) Intrinsic Safety			(Notes 5, 6)		EA
FM Approvals (USA and Canada) Explosion Proof			(Notes 5, 6, 13)		EB
FM Approvals (USA and Canada) Nonincendive			(Notes 5, 6)		EC
IEC Intrinsic Safety II 1 G and II 1/2 G Ex ia IIC T6; II 1 D Ex iaD 20 T 95 °C and II 1/2D Ex iaD 21 T95 °C;			(Notes 5, 6)		E8
IEC Explosion Proof Group II Category 1/2 G Ex d IIC T6 and Group II Category 1/2 D Ex tD A21 IP67 T85 °C			(Notes 5, 6, 13)		E9
IEC Group II Category 3 G Ex nL IIC T6 and Group II Category 3 D Ex tD A22 IP67 T85 °C			(Notes 5, 6)		ER
Combined IEC - Intrinsic Safety, Explosion Proof and Type „N“			(Notes 5, 6, 13)		EI
Combined IEC - Intrinsic Safety and Explosion Proof			(Notes 5, 6, 13)		EH
NEPSI Intrinsic Safety Ex ia IIC T4~T6, DIP A20TA, T4~T6			(Notes 5, 6)		EY
NEPSI Explosion Proof Ex d IIC T6, DIP A21TA, T6			(Notes 5, 6, 13)		EZ
NEPSI Type „N“ Ex nL IIC T4~T6, DIP A22TA, TT6			(Notes 5, 6)		ES
Combined NEPSI - Intrinsic Safety, Explosion Proof and Type „N“			(Notes 5, 6, 13)		EQ
Combined NEPSI - Intrinsic Safety and Explosion Proof			(Notes 5, 6, 13)		EP
Other hazardous area certifications					
GOST (Russia) Ex ia			(Notes 5, 6)		W1
GOST (Russia) Ex d			(Notes 5, 6, 13)		W2
GOST (Kazakhstan) Ex ia			(Notes 5, 6)		W3
GOST (Kazakhstan) Ex d			(Notes 5, 6, 13)		W4
Inmetro (Brazil) Ex ia			(Notes 5, 6)		W5
Inmetro (Brazil) Ex d			(Notes 5, 6, 13)		W6
Inmetro (Brazil) Ex nL			(Notes 5, 6)		W7
Combined Inmetro (Brazil) - Intrinsic Safety, Explosion Proof and Type „N“			(Notes 5, 6, 13)		W8
GOST (Belarus) Ex ia			(Notes 5, 6)		WF
GOST (Belarus) Ex d			(Notes 5, 6, 13)		WG
Combined GOST (Belarus) - Intrinsic Safety and Explosion Proof			(Notes 5, 6, 13)		WH

Model 266DSH Differential

Model 266PSH Gauge

Model 266VSH Absolute

ADDITIONAL ORDERING INFORMATION for model 266VSH			XX	XX	XX	XX
Integral LCD						
Digital LCD integral display			L1			
TTG (Through-The-Glass) digital LCD controlled display			L5			
Mounting bracket (shape and material)						
For pipe mounting - Carbon steel	(Not suitable for AISI housing)			B1		
For pipe mounting - AISI 316 L ss	(Not suitable for AISI housing)			B2		
For wall mounting - Carbon steel	(Not suitable for AISI housing)			B3		
For wall mounting - AISI 316 L ss	(Not suitable for AISI housing)			B4		
Flat type for box - AISI 316 ss				B5		
Surge						
Surge/Transient Protector					S2	
Operating manual (up to 2 different selections allowed)						
German (ONLY FOR HART and PROFIBUS VERSIONS)						M1
Italian (ONLY FOR HART VERSION)						M2
Spanish (ONLY FOR HART VERSION)						M3
French (ONLY FOR HART VERSION)						M4
English						M5
Chinese (ONLY FOR HART VERSION)						M6
Swedish (ONLY FOR HART VERSION)						M7
Polish (ONLY FOR HART VERSION)						M9
Portuguese (ONLY FOR HART VERSION)						MA
Turkish (ONLY FOR HART VERSION)						MT

ADDITIONAL ORDERING INFORMATION for model 266VSH					XX	XX	XX	XX	XX
Plates language									
German					T1				
Italian					T2				
Spanish					T3				
French					T4				
Additional tag plate									
Supplemental wired-on stainless steel plate					I1				
Laser printing of tag on stainless steel plate					I2				
Configuration									
Standard – Pressure = inH2O/ psi at 68 °F; Temperature = deg. F							N2		
Standard – Pressure = inH2O/ psi at 39.2 °F; Temperature = deg. F							N3		
Standard – Pressure = inH2O/ psi at 20 °C; Temperature = deg. C							N4		
Standard – Pressure = inH2O/ psi at 4 °C; Temperature = deg. C							N5		
Custom							N6		
Preparation procedure									
Oxygen service cleaning (only available with inert fill and PTFE gasket)								P1	
Pmax =12 MPa for Galden, 9 MPa for Halocarbon; Tmax=60 °C/140 °F									
Certificates (up to 2 different selections allowed)									
Inspection certificate EN 10204–3.1 of calibration (9-point)									C1
Inspection certificate EN 10204–3.1 of the cleanliness stage									C3
Inspection certificate EN 10204–3.1 of helium leakage test of the sensor module									C4
Inspection certificate EN 10204–3.1 of the pressure test									C5
Certificate of compliance with the order EN 10204–2.1 of instrument design									C6
Overfill protection									C9
Printed record of configured data of transmitter									CG
PMI test of wetted parts									CT

Model 266DSH Differential

Model 266PSH Gauge

Model 266VSH Absolute

ADDITIONAL ORDERING INFORMATION FOR MODEL 266VSH		XX	XX	XX	XX
Approvals					
GOST (Russia) without Ex	(NOT APPLICABLE WITH ANY HAZARDOUS AREA CERTIFICATION)	Y1			
GOST (Kazakhstan) without Ex	(NOT APPLICABLE WITH ANY HAZARDOUS AREA CERTIFICATION)	Y2			
GOST (Belarus) without Ex	(NOT APPLICABLE WITH ANY HAZARDOUS AREA CERTIFICATION)	Y4			
Chinese pattern without Ex	(NOT APPLICABLE WITH ANY HAZARDOUS AREA CERTIFICATION)	Y5			
DNV approval			YA		
Lloyd approval (PENDING)			YB		
Approval for Custody transfer (PENDING)			YC		
Material traceability					
Certificate of compliance with the order EN 10204–2.1 of process wetted parts					H1
Inspection certificate EN 10204–3.1 of process wetted parts					H3
Test report EN 10204–2.2 of pressure bearing and process wetted parts					H4
Connector					
Fieldbus 7/8 in. (Recommended for FOUNDATION Fieldbus) - (supplied loose without mating female plug)		(Notes 6, 14)			U1
Fieldbus M12x1 (Recommended for PROFIBUS PA) - (supplied loose without mating female plug)		(Notes 6, 14)			U2
Harting Han 8D – straight entry - (supplied loose)		(Notes 5, 14)			U3
Harting Han 8D – angle entry - (supplied loose)		(Notes 5, 14)			U4

Note 1: Suitable for oxygen service
 Note 2: Not available with sensor code E
 Note 3: Not available with AISI 316L ss diaphragms code S, A, L
 Note 4: Select type in additional ordering code
 Note 5: Not available with Housing code G, Z, W
 Note 6: Not available with Housing code E, K
 Note 7: Not available with Process flanges/adapters material/connection code D, E, G, H, Q, T, M, S, U, V
 Note 8: Not available with Process flanges/adapters material/connection code D, E, G, H, M, S, U, V
 Note 9: Not available with Process flanges/adapters material/connection code A, B, G, H, Q, T, M, S, U, V
 Note 10: Not available with Process flanges/adapters material/connection code A, B, G, H, Q, T, U, V
 Note 11: Not available with Process flanges/adapters material/connection code A, B, D, E, Q, T, M, S, U, V
 Note 12: Not available with Process flanges/adapters material/connection code A, B, D, E, Q, T, M, S
 Note 13: Not available with Housing code J, K, W
 Note 14: Not available with Housing code A, B, S, T, J

Standard delivery items (can be differently specified by additional ordering code)

- Adapters supplied loose
- Plug on axis of horizontal connection flange; nothing for vertical connection flange (no drain/vent valves)
- General purpose (no electrical certification)
- No display, no mounting bracket, no surge protection
- Multilanguage short-form operating instruction manual and labels in english
- Configuration with kPa and deg. C units
- No test, inspection or material traceability certificates

IMPORTANT REMARK FOR ALL MODELS

THE SELECTION OF SUITABLE WETTED PARTS AND FILLING FLUID FOR COMPATIBILITY WITH THE PROCESS MEDIA IS A CUSTOMER'S RESPONSIBILITY, IF NOT OTHERWISE NOTIFIED BEFORE MANUFACTURING.

NACE COMPLIANCE INFORMATION

- (1) The materials of constructions comply with metallurgical recommendations of NACE MR0175/ISO 15156 for sour oil field production environments. As specific environmental limits may apply to certain materials, please consult latest standard for further details. Selected materials also conform to NACE MR0103 for sour refining environments.
- (2) NACE MR-01-75 addresses bolting requirements in two classes:
 - Exposed bolts: bolts directly exposed to the sour environment or buried, encapsulated or anyway not exposed to atmosphere
 - Non exposed bolts: bolts exposed to the atmosphere.
 266 bolting identified by "NACE" are in compliance to the requirements of NACE MR-01-75 when considered "exposed bolting"

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