Data Sheet DS/266XRT-EN Rev. D

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

2600T series pressure transmitters

Engineered solutions for all applications

Measurement made easy

Base accuracy
— 0.04 % of calibrated span

Proven sensor technology together with state-of-the-art digital technology
— Large turn down ratio of up to 60:1

Comprehensive selection of sensors
— Optimized performance and stability

Flexible configuration options
— Local configuration via keys on LCD indicator

New TTG (through-the-glass) key technology
— Enables quick and easy local configuration without the need to open the cover - even in environments with explosion protection

IEC 61508 certification
— For SIL2 (1oo1) and SIL3 (1oo2) applications

Full compliance with Pressure Equipment Directive (PED) category III

Power and productivity
for a better world™

Model 266MRT Differential
Model 266GRT Gauge
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General description

The diaphragm seal models described in this data sheet are combined with transmitters 266XRT. One or two diaphragm seals can be connected to the transmitter via a capillary tube. The following models, which have different order codes, are available:

a) Model 266MRT for differential pressure may be designed with either two diaphragm seals of the same type and size or with one diaphragm seal (on the high pressure (H) or low pressure (L) side) plus a standard process flange with threaded connection. In this case, the threaded connection (1/4 – 18 NPT or 1/2 – 14 NPT using adapter) is for the liquid or dry leg on the side opposite the diaphragm seal.

b) Models 266GRT or 266ART / 266RRT for gauge pressure measurements with reference to atmospheric pressure or absolute pressure measurements with reference to vacuum are only equipped with one diaphragm seal. The table below lists the standard types of diaphragm seal that can be used together with transmitters 266XRT.

For specifications and details of the diaphragm seals, please refer to the corresponding diaphragm seal data sheet DS/S26.
Differential pressure transmitters with two diaphragm seals:
In all cases, the specifications below only apply to identical seal designs on both sides.

Diaphragm seal model	Diaphragm seal type	Seal diaphragm size (thickness)	Mnemonic symbol
S26WA S26WE	Wafer diaphragm seal (ASME and EN standards)	1.5 in. / DN 40	P1.5
		2 in. / DN 50	P2
		3 in. / DN 80	P3
		1.5 in. / DN 40 (thin)	F1.5
		2 in. / DN 50 (thin)	F2
		3 in. / DN 80 (thin)	F3
S26FA S26FE S26RA S26RE	Flush diaphragm flanged seal (ASME and EN standards; fixed and rotating flange)	2 in. / DN 50	P2
		3 in. / DN 80	P3
		4 in. / DN 100	P3
		2 in. / DN 50 (thin)	F2
		3 in. / DN 80 (thin)	F3
		4 in. / DN 100 (thin)	F3
	Extended diaphragm flanged seal (ASME and EN standards; rotating flange S26RA and S26RE only)	2 in. / DN 50	E2
		3 in. / DN 80	E3
		4 in. / DN 100	P3
S26RJ	Flush diaphragm flanged seal (JIS standards; rotating flange only)	A 50	P2
		A 80	P3
		A 100	P3
S26RR	Flush diaphragm flanged seal (ring joint in acc. with ASME standards; rotating flange)	1.5 in.	P1.5
		2 in.	P2
		3 in.	P3

Diaphragm seal model	Diaphragm seal type	Seal diaphragm size (thickness)	Mnemonic symbol
S26CN	Flanged diaphragm seal, "chemical tee"	3 in.	P3
S26TT	Off-line diaphragm seal; threaded connection	2 1/2 in.	T 2.5
S26MA, S26ME	Off-line diaphragm seal; flange connection (ASME and EN standards)	2 1/2 in.	T 2.5
S26SS	Diaphragm seal with compression nut	1 1/2 in.	K 1.5
	Triclamp	2 in. / F50	S2
	Cherry Burrel	3 in. / F80	S3
	Aseptic diaphragm seal for sanitary applications	4 in.	S3
S26VN	Diaphragm seal for weld-on saddle flange or weld-in sleeve flange	2 1/2 in.	P1.5
S26UN	Threaded diaphragm seal for flange sleeve or welding spud	1 1/2 in.	Z1.5
S26BN	Button diaphragm seal	1 in.	B1
S26PN	Flanged diaphragm seal for urea service	1 1/2 in.	U1.5
		2 1/2 in.	U2.5

Model 266MRT Differential
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Model 266RRT and 266ART Absolute

Functional specification

Measuring range limits and span limits

Sensor code	Measuring range upper limit (URL)	Measuring range lower limit (LRL)				Minimum measuring span	
		266MRT Differential pressure	266GRT Gauge pressure	266RRT Absolute pressure	266ART Absolute pressure	266MRT 266GRT	266RRT 266ART
C	6 kPa 60 mbar 24 inH2O	-6 kPa -60 mbar -24 inH2O	-6 kPa -60 mbar -24 inH2O		0.07 kPa abs. 0.7 mbar abs. 0.5 mm Hg	0.6 kPa 6 mbar 2.41 inH2O	1.2 kPa abs (Δ) 12 mbar abs (Δ) 9 mm Hg (Δ)
F	40 kPa 400 mbar 160 inH2O	-40 kPa -400 mbar -160 inH2O	-40 kPa -400 mbar -160 inH2O	0.07 kPa abs (§) 0.7 mbar abs (§) 0.5 mm Hg (§)	0.07 kPa abs. 0.7 mbar abs. 0.5 mm Hg	0.67 kPa 6.7 mbar 2.67 inH2O	2 kPa abs. 20 mbar abs. 15 mm Hg
L	250 kPa 2,500 mbar 1,000 inH2O	-250 kPa -2,500 mbar -1,000 inH2O	0.07 kPa abs (§) 0.7 mbar abs (§) 0.5 mm Hg (§)	0.07 kPa abs (§) 0.7 mbar abs (§) 0.5 mm Hg (§)	0.07 kPa abs (§) 0.7 mbar abs (§) 0.5 mm Hg (§)	4.17 kPa 41.67 mbar 16.73 inH2O	12.5 kPa abs. 125 mbar abs. 93.8 mm Hg
D	1,000 kPa 10 bar 145 psi		0.07 kPa abs (§) 0.7 mbar abs (§) 0.5 mm Hg (§)		0.07 kPa abs (§) 0.7 mbar abs (§) 0.5 mm Hg (§)	16.7 kPa 167 mbar 2.42 psi	50 kPa abs (Δ) 500 mbar abs (Δ) 7.25 psia (Δ)
N	2,000 kPa 20 bar 290 psi	-2,000 kPa -20 bar -290 psi		0.07 kPa abs (§) 0.7 mbar abs (§) 0.5 mm Hg (§)		33.3 kPa 333 mbar 4.83 psi	100 kPa abs (#) 1 bar abs (#) 14.5 psia (#)
U	3,000 kPa 30 bar 450 psi		0.07 kPa abs (§) 0.7 mbar abs (§) 0.5 mm Hg (§)		0.07 kPa abs (§) 0.7 mbar abs (§) 0.5 mm Hg (§)	50 kPa 500 mbar 7.25 psi	150 kPa abs (Δ) 1.5 bar abs (Δ) 21.7 psia (Δ)
R	10,000 kPa 100 bar 1,450 psi	-10,000 kPa -100 bar -1,450 psi	0.07 kPa abs (§) 0.7 mbar abs (§) 0.5 mm Hg (§)		0.07 kPa abs (§) 0.7 mbar abs (§) 0.5 mm Hg (§)	167 kPa 1.67 bar 24.17 psi	500 kPa abs (Δ) 5 bar abs (Δ) 72.6 psia (Δ)
V	60,000 kPa 600 bar 8,700 psi		0.07 kPa abs (§) 0.7 mbar abs (§) 0.5 mm Hg (§)			1,000 kPa 10 bar 145 psi	

(§) Measuring range lower limit 0.135 kPa abs, 1.35 mbar abs, 1 mm Hg for fluorocarbon (Galden).
(Δ) For 266ART only
(#) For 266RRT only

Span limits
Maximum span = URL
(for differential pressure transmitter, can be adjusted up to ± URL (TD = 0.5) within the measuring range limits)

Important
To optimize measuring accuracy, it is recommended that you select the transmitter sensor code with the lowest turn down ratio.

Zero position suppression and elevation
The zero position and span can be set to any value within the measuring range limits listed in the table if:
– Set span ≥ minimum span

Damping
Configurable time constant between 0 and 60 s.
This is in addition to the sensor response time.

Warm-up time
Ready for operation as per specifications in less than 10 s with minimum damping.

Insulation resistance
>100 MΩ at 500 V DC (between terminals and ground).

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Model 266RRT and 266ART Absolute

Operating limits

SEE ALSO DATA SHEET DS/S26 FOR INFORMATION ON OTHER POSSIBLE RESTRICTIONS BASED ON DIAPHRAGM SEAL VERSIONS.

Pressure limits

Overpressure limits

Without damage to the transmitter

Models 266MRT and 266RRT	Filling fluid	Overpressure limits
Sensors C to R	Silicone oil	0.07 kPa abs., 0.7 mbar abs., 0.5 mm Hg and 16 MPa, 160 bar, 2,320 psi, or 25 MPa, 250 bar, 3,625 psi, or 41 MPa, 410 bar, 5,945 psi depending on code variant selected
Sensors C to R	Fluorocarbon (Galden)	17.5 kPa abs., 175 mbar abs., 131 mm Hg and 16 MPa, 160 bar, 2,320 psi, or 25 MPa, 250 bar, 3,625 psi, or 41 MPa, 410 bar, 5,945 psi depending on code variant selected

Models 266GRT and 266ART	Filling fluid	Overpressure limits
Sensor C, F	-	0.07 kPa abs., 0.7 mbar abs., 0.5 mm Hg and 1 MPa, 10 bar, 145 psi
Sensor L	Silicone oil	0.07 kPa abs., 0.7 mbar abs., 0.5 mm Hg and 3 MPa, 30 bar, 435 psi
Sensor D	Silicone oil	0.07 kPa abs., 0.7 mbar abs., 0.5 mm Hg and 6 MPa, 60 bar, 870 psi
Sensor U	Silicone oil	0.07 kPa abs., 0.7 mbar abs., 0.5 mm Hg and 6 MPa, 60 bar, 870 psi
Sensor R	Silicone oil	0.07 kPa abs., 0.7 mbar abs., 0.5 mm Hg and 30 MPa, 300 bar, 4350 psi
Sensor V	Silicone oil	0.07 kPa abs., 0.7 mbar abs., 0.5 mm Hg and 90 MPa, 900 bar, 13,050 psi
Sensor L	Fluorocarbon (Galden)	0.135 kPa abs., 1.35 mbar abs., 1 mm Hg and 3 MPa, 30 bar, 435 psi
Sensor D	Fluorocarbon (Galden)	0.135 kPa abs., 1.35 mbar abs., 1 mm Hg and 6 MPa, 60 bar, 870 psi
Sensor U	Fluorocarbon (Galden)	0.135 kPa abs., 1.35 mbar abs., 1 mm Hg and 6 MPa, 60 bar, 870 psi
Sensor R	Fluorocarbon (Galden)	0.135 kPa abs., 1.35 mbar abs., 1 mm Hg and 30 MPa, 300 bar, 4350 psi
Sensor V	Fluorocarbon (Galden)	0.135 kPa abs., 1.35 mbar abs., 1 mm Hg and 90 MPa, 900 bar, 13,050 psi

Static pressure limits

Transmitters for differential pressure, models 266MRT, can operate within the specifications with the following limit values:

Sensors	Filling fluid	Static pressure limits
Sensors C to R	Silicone oil	3.5 kPa abs., 35 mbar abs., 0.5 psia and 16 MPa, 160 bar, 2,320 psi, or 25 MPa, 250 bar, 3,625 psi, or 41 MPa, 410 bar, 5,945 psi depending on code variant selected
Sensors C to R	Fluorocarbon (Galden)	17.5 kPa abs., 175 mbar abs., 131 mm Hg and 16 MPa, 160 bar, 2,320 psi, or 25 MPa, 250 bar, 3,625 psi, or 41 MPa, 410 bar, 5,945 psi depending on code variant selected

The overpressure limits and upper static pressure limits can be lowered by means of the nominal pressure rating of the diaphragm seal flange; see diaphragm seal data sheet DS/S26.

Test pressure

The transmitters can withstand a pressure test with the following line pressure without leaking:

Model	Test pressure
266MRT	1.5 x nominal pressure (static pressure limit) simultaneously on both sides [1]
266RRT	1 x nominal pressure (static pressure limit) [1]
266GRT / 266ART	Overpressure limits of sensor [1]

1 Or double the value of the pressure sensor flange pressure stage, depending on which value is less.
Meets hydrostatic test requirements of ANSI/ISA–S 82.03.

Temperature limits °C (°F)

Environment

This is the operating temperature.

Models 266MRT, 266RRT	Ambient temperature limits
Silicone oil for sensors C to R	-40 ... 85 °C (-40 ... 185 °F)
Fluorocarbon (Galden) for sensors C to R	-40 ... 85 °C (-40 ... 185 °F)

Models 266GRT, 266ART	Ambient temperature limits
Silicone oil for sensor	-40 ... 85 °C (-40 ... 185 °F)
Inert (Galden) for sensor	-40 ... 85 °C (-40 ... 185 °F)
White oil for sensor	-6 ... 85 °C (21 ... 185 °F)

Models 266XRT	Ambient temperature limits
Integrated LCD display	-40 ... 85 °C (-40 ... 185 °F)

Below -20 C (-4 °F) and above 70 °C (158 °F), it may no longer be possible to read the LCD display clearly.

Important

For applications in explosive environments, the temperature range specified on the certificate / approval applies dependent upon the degree of protection sought.

Process

Model 266MRT (side without diaphragm seal)	Process temperature limits
Silicone oil for sensors C to R	-40 ... 121 °C (-40 ... 250 °F) [1]
Fluorocarbon (Galden) for sensors C to R	-40 ... 121 °C (-40 ... 250 °F) [2]
Viton gasket	-20 ... 121 °C (-4 ... 250 °F)
PTFE gasket	-20 ... 85 °C (-4 ... 185 °F)

1 85 °C (185 °F) for applications under 10 kPa, 100 mbar abs., 1.45 psia up to 3.5 kPa abs., 35 mbar abs., 26 mm Hg
2 85 °C (185 °F) for applications below atmospheric pressure up to 17.5 kPa abs., 175 mbar abs., 131 mm Hg

The table below contains the specifications for diaphragm seal filling fluids when used in transmitters with (a) diaphragm seal(s).

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Filling fluid (application)	Process temperature and pressure limits			
	Tmax °C (°F) @ Pabs > than	Pmin mbar abs (mm Hg)	Tmax °C (°F) @ Pmin	Tmin °C (°F)
Silicone oil PMX 200 10 cSt	250 (480) @ 385 mbar	0,7 (0,5)	130 (266)	-40 (-40)
Silicone oil Baysilone PD5 5 cSt	250 (480) @ 900 mbar	0,7 (0,5)	45 (123)	-85 (-121)
Fluorocarbon Galden G5 (oxygen applications)	160 (320) @ 1 bar	2,1 (1,52)	60 (140)	-20 (-4)
Fluorocarbon Halocarbon 4.2 (oxygen applications)	180 (356) @ 425 mbar	4 (3)	70 (158)	-20 (-4)
Silicone polymer Syltherm XLT (cryogenic applications)	110 (230) @ 118 mbar	2,1 (1,52)	20 (68)	-100 (-148)
Silicone oil DC 704 (high-temperature applications)	375 (707) @ 1 bar	0,7 (0,5)	220 (328)	-10 (14)
Vegetable oil Neobee M-20 (food and beverage, sanitary applications) with FDA approval	200 (390) @ 1 bar	10 (7,2)	20 (68)	-18 (0)
Mineral oil Esso Marcol 122 (food and beverage, sanitary applications) with FDA approval	250 (480) @ 630 mbar	0,7 (0,5)	110 (230)	-6 (21)
Glycerin water 70 % (food and beverage, sanitary applications) with FDA approval	93 (200) @ 1 bar	1000 (760)	93 (200)	-7 (-20)

Flushing ring gasket material	Process limits		
	Pressure (max.)	Temperature	P x T
Garlock	6.9 MPa, 69 bar, 1,000 psi	-73 ... 204 °C (-100 ... 400 °F)	250,000 (°F x psi)
Graphite	2.5 MPa, 25 bar, 362 psi	-100 ... 380 °C (-148 ... 716 °F)	
PTFE	6 MPa, 60 bar, 870 psi	-100 ... 250 °C (-148 ... 482 °F)	

Storage

Models 266XRT	Storage temperature range
Storage temperature	-50 ... 85 °C (-58 ... 185 °F)
Integrated LCD display	-40 ... 85 °C (-40 ... 185 °F)

Limits for environmental effects

Electromagnetic compatibility (EMC)

Meets requirements of EN 61326 and Namur NE-21
Overvoltage strength (with surge protection): 4 kV
(in acc. with IEC 1000-4-5 EN 61000-4-5).

Pressure Equipment Directive (PED)

Meets requirements of Directive 97/23/EC Category III, module H.

Humidity

Relative humidity: Up to 100 %.
Condensation, icing: Permissible.

Vibration resistance

Acceleration up to 2 g at frequencies of up to 1,000 Hz (according to IEC 60068-2-6).

Shock resistance

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

Humid and dusty atmospheres (degree of protection)

The transmitter is dust and sand-proof and protected against immersion effects as defined by EN 60529 (1989) to IP 67 (IP 68 on request), by NEMA to 4X, or by JIS C0920.
IP 65 with Harting Han plug connector.

Hazardous atmospheres

With or without integral LCD display

Type of protection "Intrinsic safety": Approval acc. to ATEX Europa (code E1) and IEC Ex (code E8) 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 A20T_A, T4~T6.
Type of protection "Flameproof (enclosure)" Approval acc. to ATEX Europa (code E2) and IEC Ex (code E9) 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 A21T_A, T6.
Type of protection “nL”: ATEX Europa (code E3) and IEC Ex (code ER) Declaration of conformity II 3 G Ex nL IIC T6/T5/T4 and II 3 D Ex tD A22 T85 °C; IP67. NEPSI China (code EY) declaration of conformity Ex nL IIC T4~T6, DIP A22T_A, T6.
FM approvals for USA (code E6) and FM approvals for 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)
ATEX combined (code EW = E1 + E2 + E3), (code E7 = E1 + E2)
ATEX combined and FM approvals (code EN = EW + E4 + E6)
Combined FM approvals for USA and Canada — Intrinsic safety (code EA) — Flameproof enclosure (code EB) — Non-incendive (code EC)
IEC combined (code EH = E8 + E9), (code EI = E8 + E9 + ER)
NEPSI combined (code EP = EY + EZ), (code EQ = EY + EZ + ES)
— GOST (Russia), GOST (Kazakhstan), based on ATEX

The permissible ambient temperature ranges (within the limits of -50 and 85 °C) are specified in the type examination certificates dependent upon the temperature class.

Model 266MRT Differential
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Model 266RRT and 266ART Absolute

Electrical data and options

HART digital communication and 4 ... 20 mA output

Power supply

The transmitter operates from 10.5 … 42 V DC with no load and is protected against reversed polarity (additional loads enable operation above 42 V DC).
During use in Ex ia zones and in other intrinsically safe applications, the power supply must not exceed 30 V DC.
Minimum operating voltage with "surge protection" option: 12.3 V DC

Ripple

Max. 20 mV over a 250 Ω load as per HART specifications.

Load limitations

Total loop resistance at 4 … 20 mA and HART:

$$R\ (k\Omega) = \frac{\text{Voltage supply} - \text{Minimum operating voltage (V DC)}}{22\ \text{mA}}$$

A minimum resistance of 250 Ω is required for HART communication.

Displays (optional)

Integrated LCD display (code L1)

Widescreen LCD display, 128 x 64 pixels,
52.5 x 27.2 mm (2.06 x 1.07 in.) dot matrix. Multilanguage.
Four keys for device configuration and management.
Easy setup for quick commissioning.
Customized visualizations which the user can select.
Totalized and actual value flow indication.
The display can also be used to show static pressure, sensor temperature, and diagnostics messages, as well as make configuration settings.

Integrated LCD display with TTG operation (code L5)

As with the integrated LCD display above, but featuring an innovative TTG (through-the-glass) keypad which can be used to activate the device's configuration and management menus without having to remove the transmitter housing cover.
The TTG keys are protected against accidental activation.

M10142

Fig. 1: Integrated LCD display with TTG operation

Surge protection (optional)

Up to 4 kV
- Voltage: 1.2 µs rise time / 50 µs delay time at half value
- Current: 8 µs rise time / 20 µs delay time at half value

Output signal

Two-wire output 4 ... 20 mA, can be selected by user: linear or square root output signal, characteristic with exponents 3/2 or 5/2, square root for bidirectional flow, linearization table with 22 points (i.e., for level measurements in horizontal, cylindrical containers and spherical vessels).
HART communication provides digital process variables superimposed on the 4 ... 20 mA signal (protocol according to Bell 202 FSK standard).

Output current limits (according to NAMUR standard)

Overload condition
- Lower limit: 3.8 mA (configurable from 3.8 … 4 mA)
- Upper limit: 20.5 mA (configurable from 20 … 21 mA)

Alarm current

- Minimum alarm current: 3.6 mA (configurable from 3.6 … 4 mA)
- Maximum alarm current: 21 mA (configurable from 20 … 22 mA)

Default 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

Model

LINK MASTER
Link Active Scheduler (LAS) capability implemented.
Manufacturer code: 000320 (hex)
Device type code: 0007 (hex)

Power supply

The transmitter operates from 9 … 32 V DC, regardless of polarity, with or without surge protection.
During use in EEx ia zones, the 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 limit value: 20 mA max.

Output signal

Physical layer in accordance with IEC 11582 / EN 611582; transmission using Manchester II modulation at 31.25 kbit/s.

Function blocks / cycle time

3 enhanced analog input blocks / 25 ms max. (each)
1 extended 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 manufacturer-specific pressure with calibration transducer block
1 manufacturer-specific advanced diagnostics transducer block with plugged impulse line detection
1 manufacturer-specific local display transducer block

Number of link objects

35

Number of VCRs

35

Output interface

FOUNDATION fieldbus digital communication protocol in accordance with standard H1; complies with specification V. 1.7.
FF registration in progress.

Integrated LCD display

Widescreen LCD display, 128 x 64 pixels,
52.5 x 27.2 mm (2.06 x 1.07 in.) dot matrix. Multilanguage.
Four keys for device configuration and management.
Easy setup for quick commissioning.
Customized visualizations which the user can select.
Totalized and actual value flow indication.
The display can also be used to show static pressure, sensor temperature, and diagnostics messages, as well as make configuration settings.

Transmitter interference mode

The output signal is "frozen" at the last valid value in the event of significant transmitter interference, once this interference is detected by the self-diagnostics function (which also displays error states).
In the event of electronics failures or short circuits, the transmitter consumption is electronically limited to a defined value (approx. 20 mA) in order to ensure network safety.

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PROFIBUS PA output

Model
Pressure transmitter, compliant with Profile 3.0.1
ID number: 3450 (hex)

Power supply
The transmitter operates from 9 … 32 V DC, regardless of polarity, with or without surge protection.
The power supply must not exceed 17.5 V DC when used in EEx ia zones.
Intrinsically safe installation in accordance with FISCO model.

Current consumption
Operating (quiescent): 15 mA
Fault current limit value: 20 mA max.

Output signal
Physical layer in accordance with IEC 1158-2 / EN 61158-2; transmission using Manchester II modulation at 31.25 kbit/s.

Output interface
PROFIBUS PA communication according to PROFIBUS DP 50170 Part 2 / DIN 19245 Parts 1-3

Output cycle time
25 ms

Data blocks
1 "physical block"
3 "analog input" blocks
1 "pressure transducer block" with calibration
1 "transducer block" for local display

Integrated LCD display
Widescreen LCD display, 128 x 64 pixels,
52.5 x 27.2 mm (2.06 x 1.07 in.) dot matrix. Multilanguage.
Four keys for device configuration and management.
Easy setup for quick commissioning.
Customized visualizations which the user can select.
Actual value flow indication.
The display can also be used to show static pressure, sensor temperature, and diagnostics messages, as well as make configuration settings.

Transmitter interference mode
In the event of significant transmitter interference that is detected by the self-diagnostics function, the output signal can be put into defined states that the user is able to select: safe value, last valid value, or calculated value.
In the event of electronics failures or short circuits, the transmitter consumption is electronically limited to a defined value (approx. 20 mA) in order to ensure network safety.

Measuring accuracy

Measured with reference conditions acc. to IEC 60770 environment
Ambient temperature 20 °C (68 °F), rel. humidity 65 %, atmospheric pressure 1,013 hPa (1,013 mbar), position of measuring cell (separation diaphragm areas) vertical, measuring span based on zero position, separation diaphragms made from stainless steel AISI 316 L or Hastelloy, silicone oil filling fluid, HART digital trim values equal to 4 and 20 mA span end points, linear characteristic.
Unless otherwise stated, errors are specified as a % of the span value.
Some measuring accuracy levels relating to the upper measuring range limit (URL) are affected by the current turn down (TD); i.e., the ratio of the upper measuring range limit to the set span.
FOR OPTIMUM MEASURING ACCURACY, IT IS RECOMMENDED THAT YOU SELECT THE TRANSMITTER SENSOR CODE WHICH WILL PROVIDE THE LOWEST TD VALUE.

Measuring error

% of calibrated span, consisting of terminal-based non-linearity, hysteresis, and non-repeatability.
In the case of fieldbus devices, SPAN refers to the analog input function block output scale range.

Model	Sensor	For TD range	Measuring error
266MRT with DF Mnemonic P3, F3, E3, S3, F2	F to R	From 1:1 to 10:1	± 0,04 %
	F to R	From 10:1 to 60:1	± (0,04 + 0,005 x TD – 0,05) %
	C	From 1:1 to 5:1	± 0,04 %
	C	From 5:1 to 10:1	± (0,008 x TD) %
266MRT with DF Mnemonic different from above	F to R	From 1:1 to 10:1	± 0,065 %
	F to R	From 10:1 to 60:1	± (0,0065 x TD) %
	C	From 1:1 to 5:1	± 0,065 %
	C	From 5:1 to 10:1	± (0,013 x TD) %

DF = Diaphragm seal

Model	Sensor	For TD range	Measuring error
266RRT with DF Mnemonic P3, F3, E3, S3, F2	F, L, N	From 1:1 to 10:1	± 0,04 %
	F, L, N	From 10:1 to 20:1	± (0,04 + 0,005 x TD – 0,05) %
266RRT with DF Mnemonic different from above	F, L, N	From 1:1 to 10:1	± 0,065 %
	F, L, N	From 10:1 to 20:1	± (0,0065 x TD) %

Model	Sensor	For TD range	Measuring error
266GRT with DF Mnemonic P3, F3, E3, S3, F2	F to V	From 1:1 to 10:1	± 0,04 %
	F to V	From 10:1 to 60:1	± (0,04 + 0,005 x TD – 0,05) %
	C	From 1:1 to 5:1	± 0,04 %
	C	From 5:1 to 10:1	± (0,008 x TD) %
266GRT with DF Mnemonic different from above	F to V	From 1:1 to 10:1	± 0,065 %
	F to V	From 10:1 to 60:1	± (0,0065 x TD) %
	C	From 1:1 to 5:1	± 0,065 %
	C	From 5:1 to 10:1	± (0,013 x TD) %

Model	Sensor	For TD range	Measuring error
266ART with DF Mnemonic P3, F3, E3, S3, F2	F to R	From 1:1 to 10:1	± 0,04 %
	F to R	From 10:1 to 20:1	± (0,04 + 0,005 x TD – 0,05) %
	C	From 1:1 to 5:1	± 0,04 %
266ART with DF Mnemonic different from above	F to R	From 1:1 to 10:1	± 0,065 %
	F to R	From 10:1 to 20:1	± (0,0065 x TD) %
	C	From 1:1 to 5:1	± 0,065 %

Model	Pabs sensor (second sensor for 266MRT) Measuring range 41 MPa, 410 bar, 5,945 psi	
266MRT	C to R	80 kPa, 800 mbar, 321 in H2O

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Ambient temperature

Transmitter effect per 20 K change within the limits of -40 to 85 °C
(Transmitter effect per 36 °F change within the limits of -40 to 185 °F):

Model	Sensor	For TD range	
266MRT	C to R	10:1	± (0.03 % URL + 0.045 % span)
266RRT	F, L, N	10:1	± (0.05 % URL + 0.08 % span)
266GRT	C and F	10:1	± (0.06 % URL + 0.09 % span)
266GRT	L to V	10:1	± (0.03 % URL + 0.045 % span)
266ART	C and F	5:1 (C), 10:1 (F)	± (0.06 % URL + 0.09 % span)
266ART	L to R	10:1	± (0.03 % URL + 0.045 % span)

Model 266MRT / Absolute pressure sensor

For the entire temperature range of 125 K, within the limits of –40 °C to 85 °C:

- **zero signal**
  For sensors C to R:
  40 kPa, 400 mbar, 160 in H2O
  (absolute pressure sensor 41MPa, 410 bar, 5,945 psi)
- **measuring span**
  For sensors C to R:
  0.3 MPa, 3 bar, 43.5 psi
  (absolute pressure sensor 41 MPa, 410 bar, 5,945 psi)

SEE DATA SHEET DS/S26 FOR ADDITIONAL TEMPERATURE EFFECTS ON THE DIAPHRAGM SEALS:
The total temperature effect can be defined as the combined influence of the factors referred to above on the transmitter plus the influence of the diaphragm seal, dependent upon the operating temperature.

Static pressure

Model 266MRT with diaphragm seal(s)
(zero signal errors may be calibrated out at operating pressure)

Measuring range	Sensors C, F, L, N	Sensor R
Zero signal error	Up to 100 bar: 0.05 % URL	Up to 100 bar: 0.1 % URL
	> 100 bar: 0.05 % URL/100 bar	> 100 bar: 0.1 % URL/100 bar
Span error	Up to 100 bar: 0.05 % span	Up to 100 bar: 0.1 % span
	> 100 bar: 0.05 % span/100 bar	> 100 bar: 0.1 % span/100 bar

Power supply

Within the specified limits for the voltage / load, the total influence is less than 0.005 % of the upper measuring range limit per volt.

Load

Within the specified load / voltage limits, the total influence is negligible.

Electromagnetic field

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

Common-mode interference

No influence from 100 V rms @ 50 Hz, or 50 V DC

Technical specification

(Please refer to the order information to check the availability of different versions of the relevant model)

Materials

Model 266MRT only – Side without diaphragm seal

Process separation diaphragms[1]
Stainless steel (AISI 316L - 1.4435)
Hastelloy C276;
Monel 400; tantalum
A diaphragm seal with the required diaphragm material can be selected in this case too (as with the high pressure side).

Process flanges, adapters, screw plugs, and vent / drain valves[1]
Stainless steel AISI 316L; Hastelloy C276; Monel 400

Screws and nuts
Screws made from stainless steel AISI 316, class A4-70 as per UNI 7323 (ISO 3506) in compliance with NACE MR0175 Class II.

Gaskets[1]
Viton (FPM); Buna (NBR); EPDM; PTFE; graphite

Models 266MRT, 266RRT, 266GRT, 266ART

Seal diaphragm material (high pressure side)[1]
Stainless steel AISI 316 L; Hastelloy C-276;
Hastelloy C-2000; Inconel 625; tantalum;
stainless steel AISI 316 L or Hastelloy C-276 with non-stick coating;
stainless steel AISI 316 L with anti-corrosion coating;
stainless steel AISI 316 L, gold-plated;
super duplex stainless steel (UNS S32750 in acc. with ASTM SA479);
Diaflex (AISI with anti-abrasion treatment)

Diaphragm seal extension material[1]
Stainless steel AISI 316 L (also for Diaflex-coated and gold-plated diaphragm);
Hastelloy C-276; stainless steel AISI 316 L or Hastelloy C-276 with the same coating as the diaphragm

Diaphragm seal filling fluid
Silicone oil DC200; silicone oil DC704; fluorocarbon (Galden); Fluorocarbon Halocarbon 4.2; silicone polymer Syltherm XLT; low-viscosity silicone oil Baysilone PD5; glycerin water; vegetable oil Neobee M-20; mineral oil Esso Marcol 122

Sensor filling fluid
Silicone oil, fluorocarbon (Galden)

Sensor housing
Stainless steel (AISI 316L)

Electronics housing and cover
Aluminum alloy (copper content ≤ 0.3 %) with baked epoxy finish (color: RAL 9002); stainless steel AISI 316L.

O-ring cover
Buna N (Perbunan)

Mounting bracket[2]
Galvanized C steel with chromium passivation; stainless steel AISI 316.

Local zero position, measuring span, and write protection settings
Fiber glass-reinforced polyphenylene oxide (removable)

Plates
Stainless steel (AISI 316) for transmitter name plate, certification plate, optional measuring point tag plate / settings plate attached to electronics housing, and optional tag plate with customer data. All plates laser-labeled.

1 Transmitter parts that come into contact with fluid
2 U-bolt material: stainless steel AISI 400;
screw material: high-strength alloy steel or stainless steel AISI 316

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Calibration
Standard:
- 0 to measuring range upper limit, for ambient temperature and atmospheric pressure

Optional:
- To specified measuring span

Optional extras
Mounting bracket
For vertical and horizontal 60 mm (2 in.) pipes or wall mounting

LCD display
Can be rotated in 90° increments into 4 positions

Additional tag plates
Code I2: For measuring point tag (up to 30 characters) and calibration specifications (up to 30 characters: lower and upper value plus unit), attached to transmitter housing.
Code I1: For customer data (4 lines with 30 characters each), attached to transmitter housing with wire.

Surge protector

Certificates (test, design, characteristics, material traceability)

Name plate and operating instruction language

Communication plug connectors

Process connections
On standard process flange: 1/4-18 NPT on the process axis
Via adapter: 1/2-14 NPT on the process axis
Fastening screw threads: 7/16–20 UNF with 41.3 mm center distance
Process connection via diaphragm seal: see data sheet DS/S26

Electrical connections
Two 1/2-14 NPT or M20 x 1.5 threaded bores for cable glands, directly on housing.
Special communication connector (on request)
- HART: Straight or angled Harting Han 8D connector and one mating plug.
- FOUNDATION fieldbus, PROFIBUS PA: M12 x 1 or 7/8 in. plug

Terminals
HART version: Three connections for signal / external display, for wire cross sections of up to 2.5 mm^2 (14 AWG), and connection points for testing and communication purposes
Fieldbus versions: Two signal connections (bus connection) for wire cross sections of up to 2.5 mm^2 (14 AWG)

Grounding
Internal and external ground terminals are provided for 6 mm^2 (10 AWG) wire cross sections.

Mounting position
The transmitters can be installed in any position.
The electronic housing can be rotated into any position. A stop is provided to prevent overturning.

Weight
(without options or diaphragm seal)
Models 266MRT, 266RRT: Approx. 3.7 kg (8.2 lb)
Models 266GRT, 266ART: Approx. 2 kg (4.4 lb)
Add 1.5 kg (3.3 lb) for stainless steel housings.
Add 650 g (1.5 lb) for packaging.
Take into account additional weight of up to 50 kg (110 lb) for diaphragm seals.

Packaging
Carton

Configuration

Transmitter with HART communication and 4 … 20 mA

Standard configuration

Transmitters are calibrated at the factory to the customer's specified measuring range. The calibrated range and measuring point number are provided on the name plate. If this data has not been specified, the transmitter will be delivered with the plate left blank and the following configuration:

Physical unit	kPa
4 mA	Zero
20 mA	Measuring range upper limit (URL)
Output	Linear
Damping	1 s
Transmitter interference mode	High alarm
Software tag (max. 8 characters)	Blank
Optional LCD display	PV in kPa; output in mA and in percent as bargraph

Any or all of the configurable parameters listed above - including the lower and upper range values (with the same unit of measurement) - can easily be changed using a portable HART handheld communicator or a PC running the configuration software with the DTM for 266 models. Specifications concerning the flange type and materials, O-ring and vent / drain valve materials, and additional device options are stored in the transmitter database.

Customer-specific configuration (option N6)

The following information can be specified in addition to the standard configuration parameters:

Description	16 alphanumeric characters
Supplementary information	32 alphanumeric characters
Date	Day, month, year

For the HART protocol, the following physical units are available for pressure measurements:
Pa, kPa, MPa
inH_2O @ 4 °C, mmH_2O @ 4 °C, psi
inH_2O @ 20 °C, ftH_2O @ 20 °C, mmH_2O @ 20 °C
inHg, mmHg, Torr
g/cm^2, kg/cm^2, atm
mbar, bar
These and others are available for PROFIBUS and FOUNDATION fieldbus.

Transmitter with PROFIBUS PA communication

Standard configuration

Transmitters are calibrated at the factory to the customer's specified measuring range. The calibrated range and measuring point number are provided on the name plate. If this data has not been specified, the transmitter will be delivered with the plate left blank and the following configuration:

Measuring profile	Pressure
Physical unit	kPa
Output scale 0 %	Measuring range lower limit (LRL)
Output scale 100 %	Measuring range upper limit (URL)
Output	Linear
Upper alarm limit	Measuring range upper limit (URL)
Upper warning limit	Measuring range upper limit (URL)
Lower warning limit	Measuring range lower limit (LRL)
Lower alarm limit	Measuring range lower limit (LRL)
Hysteresis limit value	0.5 % of output scaling
PV filter time	0 s
Address (set using local control buttons)	126
Measuring point tag	30 alphanumeric characters
Optional LCD display	PV in kPa; output in percent as bargraph display

Any or all of the configurable parameters listed above - including the measuring range values (with the same unit of measurement) - can easily be changed using a PC running the configuration software with the DTM for 266 models. Specifications concerning the flange type and materials, O-ring and vent / drain valve materials, and additional device options are stored in the transmitter database.

Customer-specific configuration (option N6)

The following information can be specified in addition to the standard configuration parameters:

Description	32 alphanumeric characters
Supplementary information	32 alphanumeric characters
Date	Day, month, year

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Transmitter with FOUNDATION fieldbus communication

Standard configuration

Transmitters are calibrated at the factory to the customer's specified measuring range. The calibrated range and measuring point number are provided on the name plate. If this data has not been specified, the transmitter will be delivered with the plate left blank and the analog input function block FB1 will be configured as follows:

Measuring profile	Pressure
Physical unit	kPa
Output scale 0 %	Measuring range lower limit (LRL)
Output scale 100 %	Measuring range upper limit (URL)
Output	Linear
Upper alarm limit	Measuring range upper limit (URL)
Upper warning limit	Measuring range upper limit (URL)
Lower warning limit	Measuring range lower limit (LRL)
Lower alarm limit	Measuring range lower limit (LRL)
Hysteresis limit value	0.5 % of output scaling
PV filter time	0 s
Measuring point tag	30 alphanumeric characters
Optional LCD display	PV in kPa; output in percent as bargraph display

The analog input function blocks FB2 and FB3 are each configured for the sensor temperature measured in °C and the static pressure measured in MPa. Any or all of the configurable parameters listed above - including the measuring range values - can easily be changed using a FOUNDATION fieldbus-compatible configuration tool. Specifications concerning the flange type and materials, O-ring and vent / drain valve materials, and additional device options are stored in the transmitter database.

Customer-specific configuration (option N6)

The following information can be specified in addition to the standard configuration parameters:

Description	32 alphanumeric characters
Supplementary information	32 alphanumeric characters
Date	Day, month, year

Mounting dimensions

(not design data) - dimensions in mm (inch)

Models 266MRT, 266RRT with barrel housing

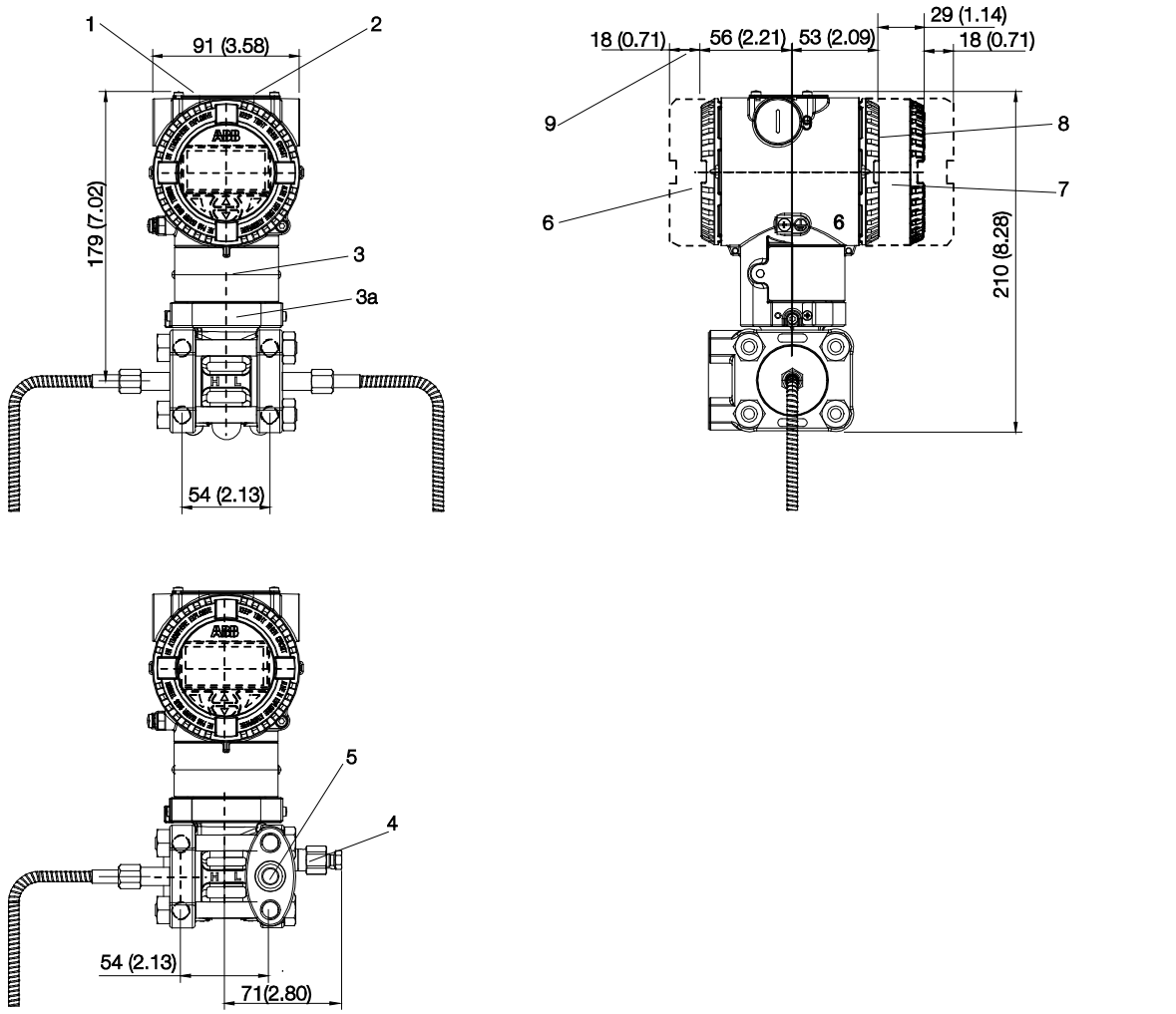

Fig. 2: Dimensions - Barrel housing
1 Settings | 2 Name plate | 3 Certification plate | 3a Optional plate (code I2) | 4 Vent / drain valve | 5 Process connection | 6 Terminal side | 7 LCD display housing cover | 8 Electronics side | 9 Space for removing the cover

Important

In the case of model 266MRT with only one diaphragm seal, the threaded connection (1/4 – 18 NPT direct or 1/2 – 14 NPT via adapter) of the standard process flange, the gasket groove, and the gasket comply with IEC 61518. The screw-on thread for attaching the adapter or other devices (e.g., manifold) to the process flange is 7/16-20 UNF.

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Models 266MRT, 266RRT with barrel housing and mounting bracket, for vertical or horizontal mounting on 60 mm (2 in.) pipe

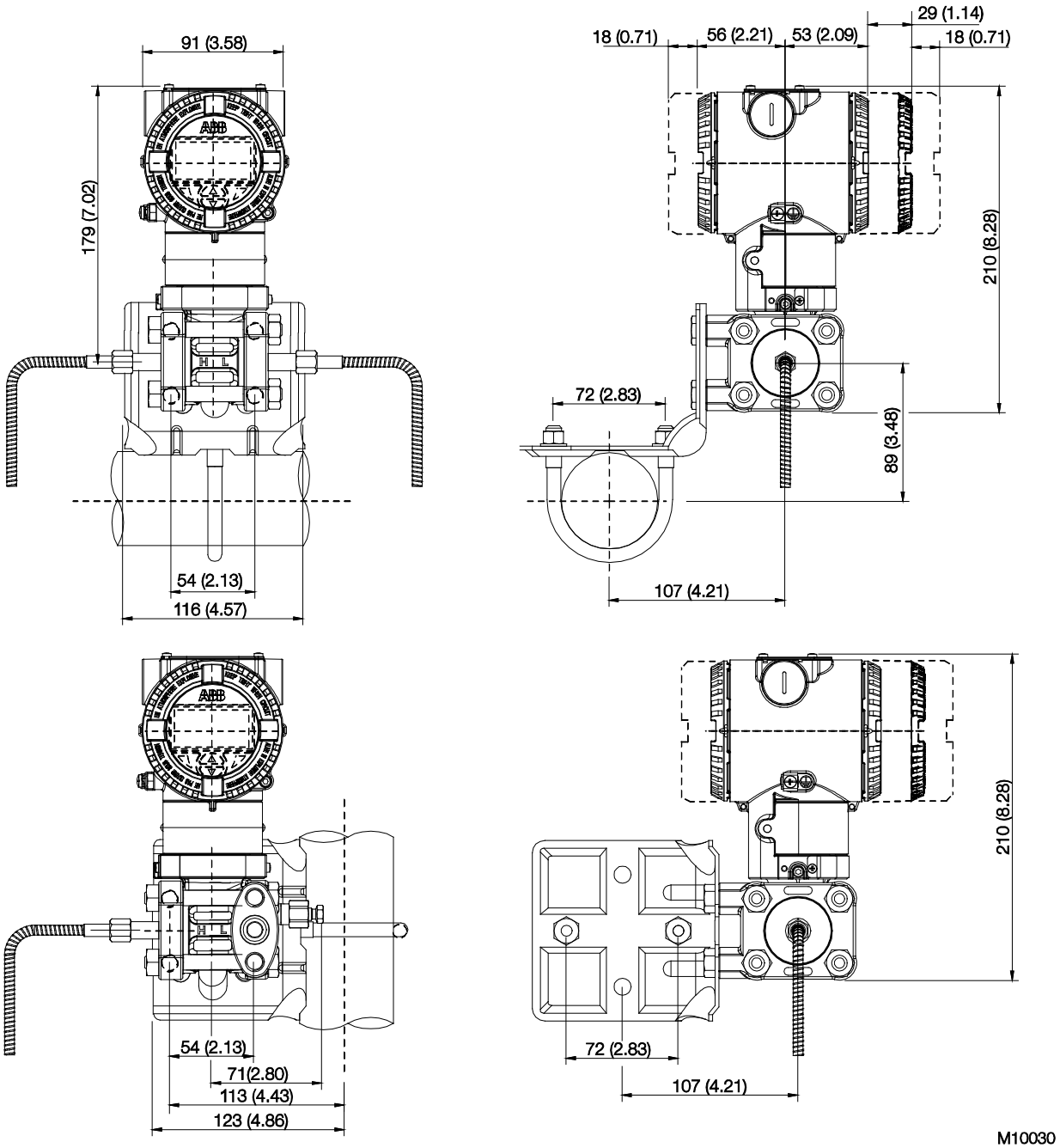

Fig. 3: Dimensions - Barrel housing with mounting bracket for vertical or horizontal mounting on 60 mm (2 in.) pipe

Models 266MRT, 266RRT with DIN housing and mounting bracket, for vertical or horizontal mounting on 60 mm (2 in.) pipe

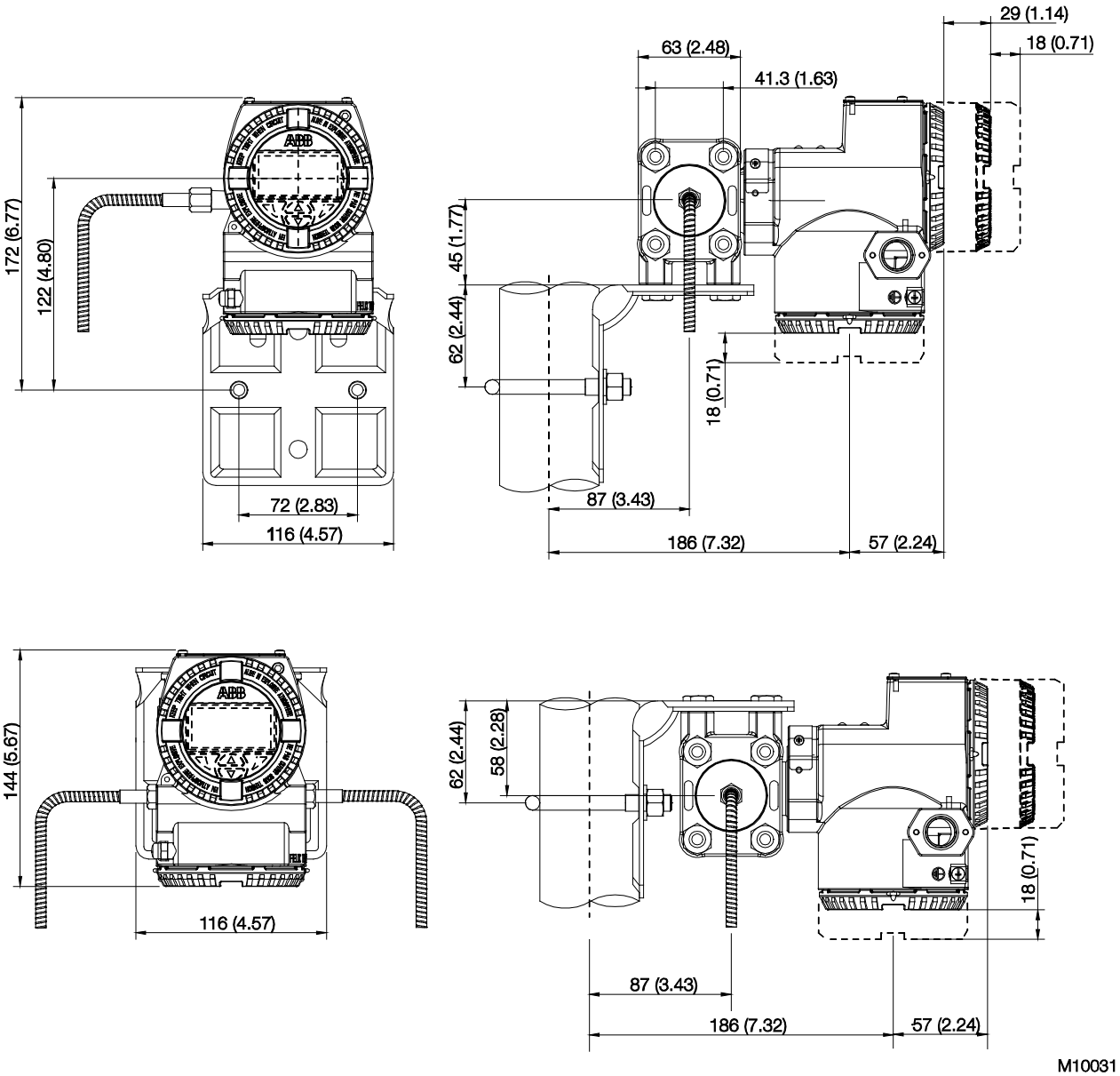

Fig. 4: Dimensions - DIN housing with mounting bracket for vertical or horizontal mounting on 60 mm (2 in.) pipe

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Models 266MRT with barrel housing and flush mounting bracket, for vertical or horizontal mounting on 60 mm (2 in.) pipe

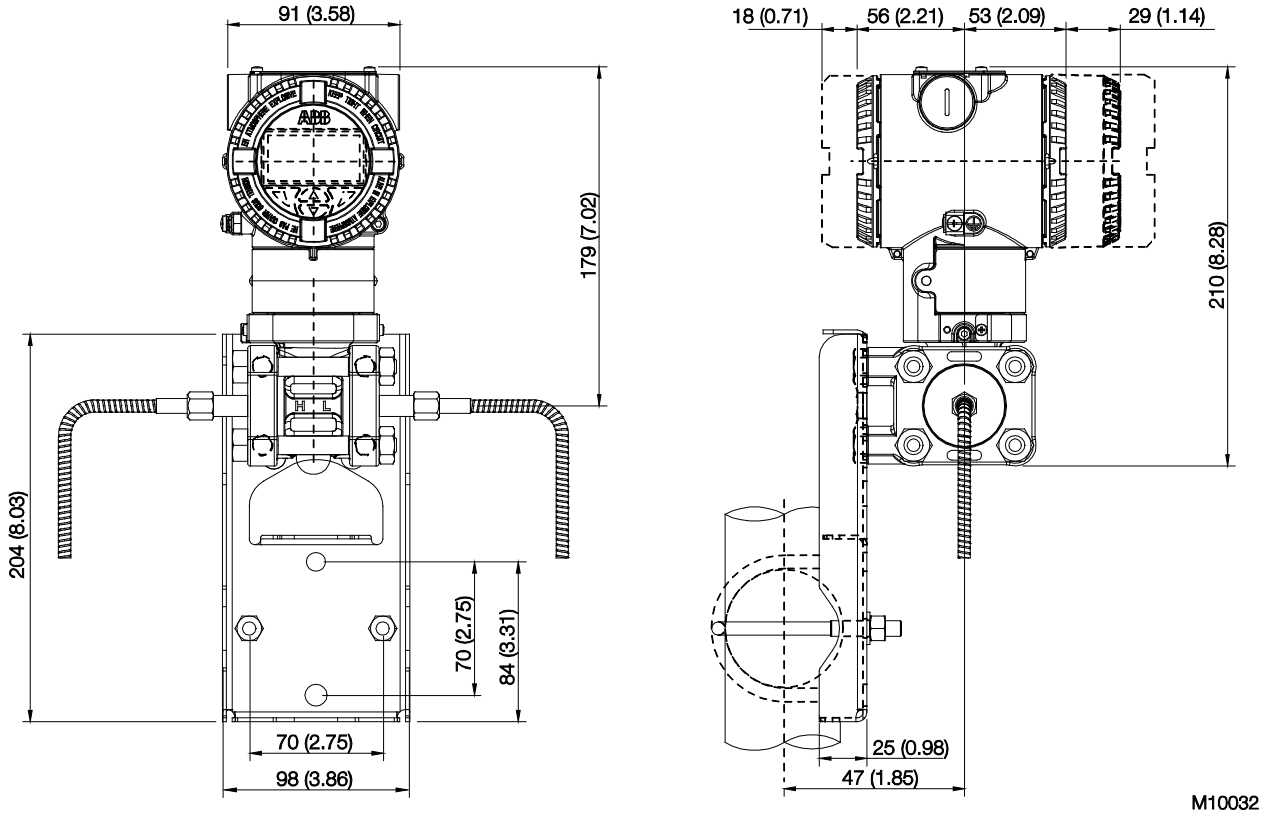

Fig. 5: Dimensions - Barrel housing with flush mounting bracket for vertical or horizontal mounting on 60 mm (2 in.) pipe

Models 266GRT, 266ART with barrel housing and mounting bracket, for vertical or horizontal mounting on 60 mm (2 in.) pipe

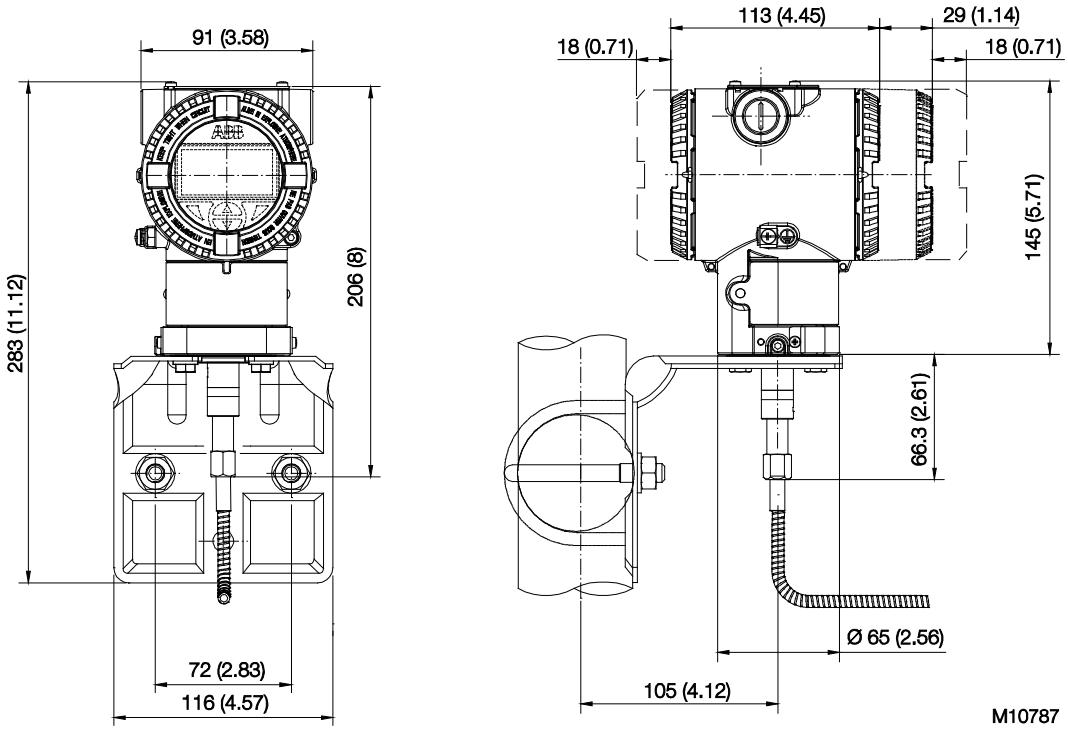

Fig. 6: Dimensions - Barrel housing with mounting bracket for vertical or horizontal mounting on 60 mm (2 in.) pipe

Models 266GRT, 266ART with DIN housing and mounting bracket, for vertical or horizontal mounting on 60 mm (2 in.) pipe

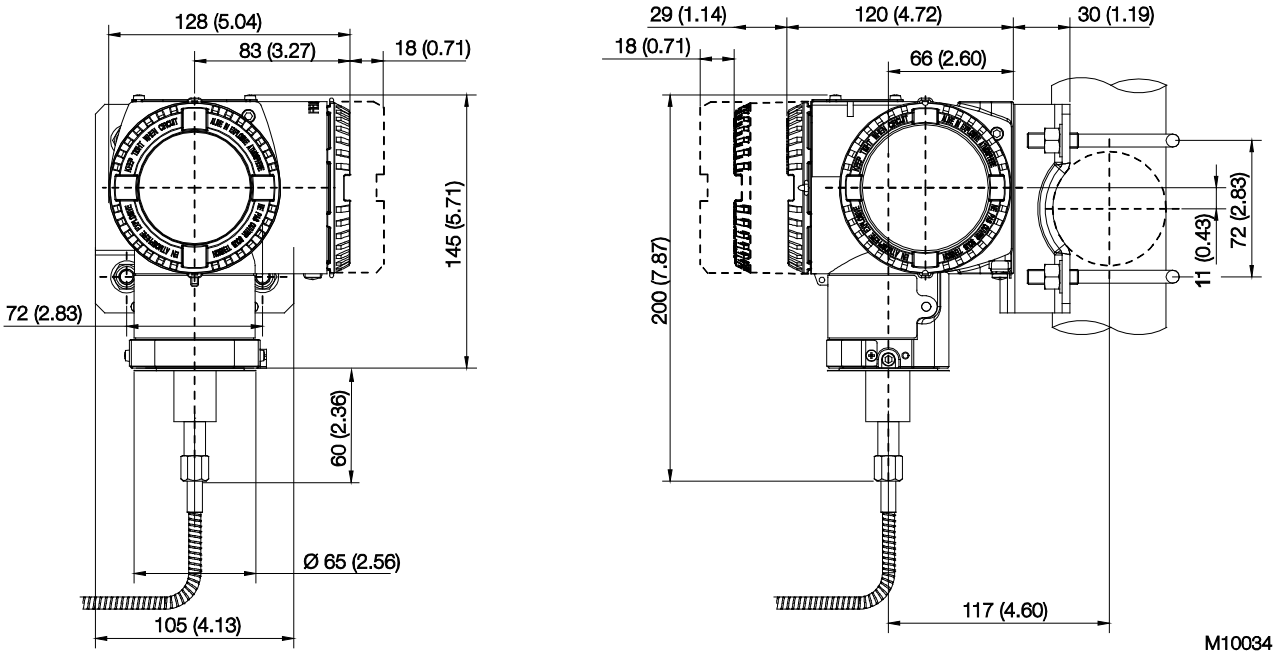

Fig. 7: Dimensions - DIN housing with mounting bracket for vertical or horizontal mounting on 60 mm (2 in.) pipe

Electrical connections

HART version

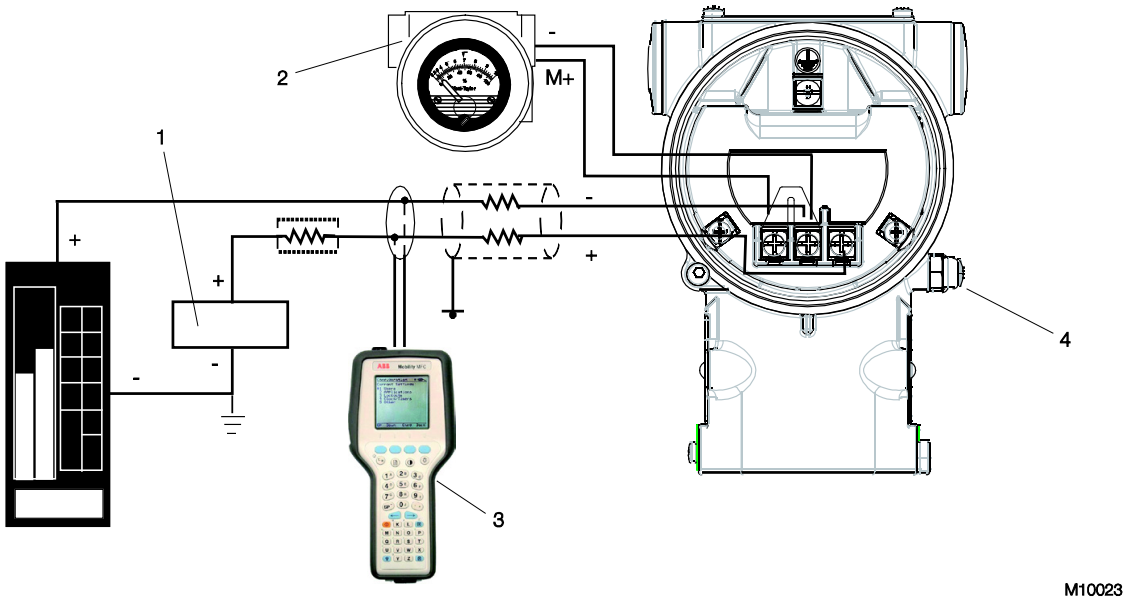

Fig. 8: Electrical connections - HART version
1 Power supply | 2 Remote display | 3 Handheld terminal | 4 External ground connection

The HART handheld terminal can be connected to any wiring termination point in the loop, provided there is a minimum resistance of 250 Ω between the handheld terminal and transmitter power supply. If this is less than 250 Ω, additional resistance needs to be incorporated in order to enable communication.

Fieldbus versions

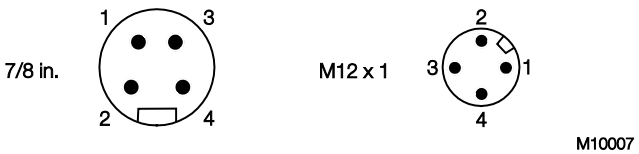

Fig. 9: Plug connector - fieldbus versions

Pin assignment (plug)		
Pin number	FOUNDATION fieldbus	PROFIBUS PA
1	DATA -	DATA +
2	DATA +	GROUND
3	SHIELD	DATA -
4	GROUND	SHIELD

Delivery scope: Plug connectors supplied loose without mating plug (female connector)

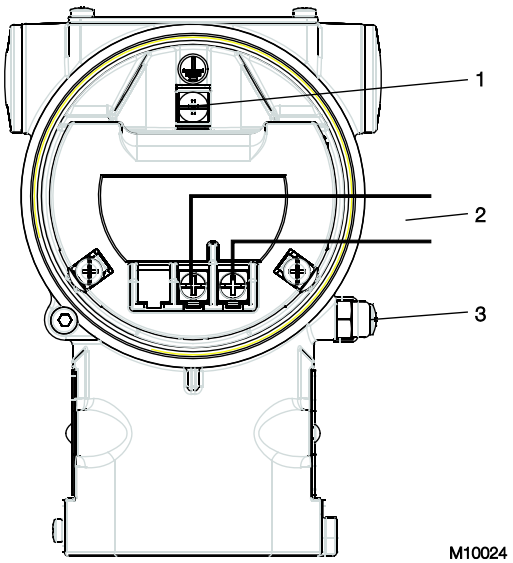

Fig. 10: Standard terminal strip
1 Internal ground terminal | 2 Fieldbus line (regardless of polarity) | 3 External ground terminal

HART version

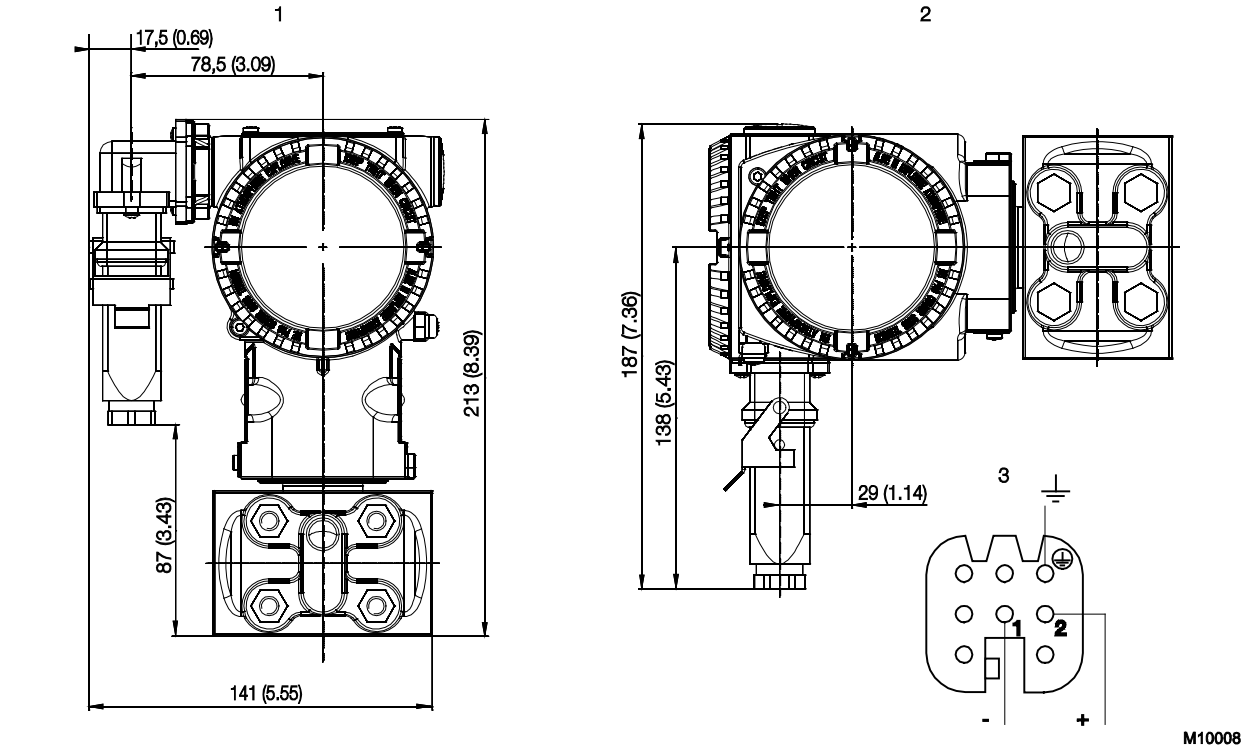

Fig. 11: Harting Han plug connector - differential pressure transmitter (application example)

1 Barrel housing | 2 DIN housing | 3 Harting Han 8D (8U) socket insert for mating plug supplied (view of sockets)

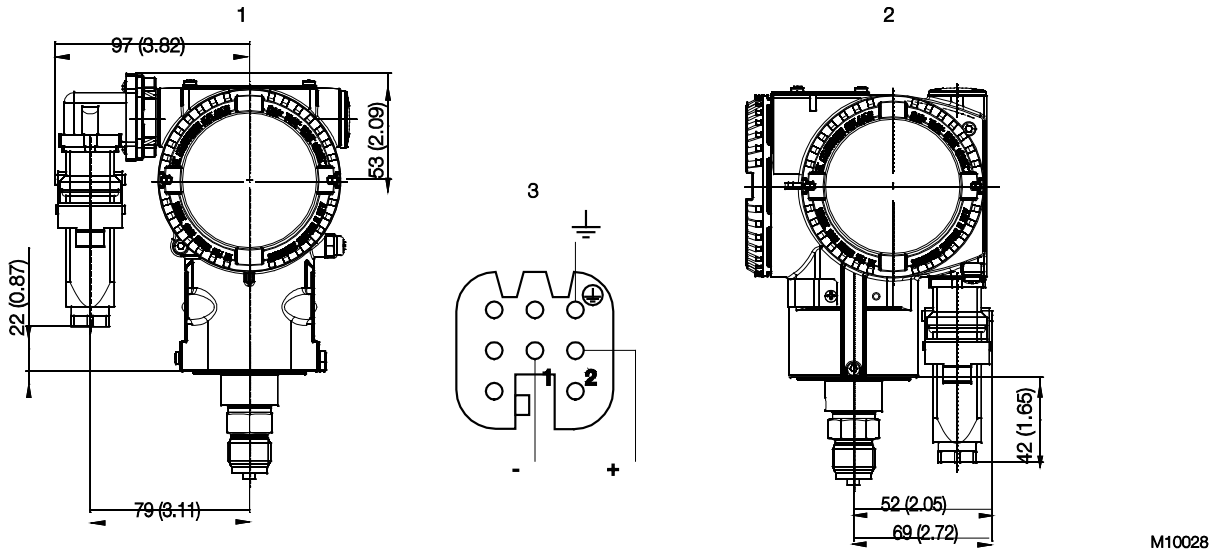

Fig. 12: Harting Han plug connector - gauge / absolute pressure transmitter (application example)

1 Barrel housing | 2 DIN housing | 3 Harting Han 8D (8U) socket insert for mating plug supplied (view of sockets)

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Ordering information

Basic ordering information model 266MRT Differential Pressure Transmitter with remote seal(s), maximum working pressure depending on seal / sensor limits

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						266MRT	X	X	X	X	X	X	X
Differential pressure transmitter with remote seal(s), base accuracy 0.04 %													
Sensor Span Limits – 7th character												Continued on next Page	
0.6 and 6 kPa	6 and 60 mbar	2.41 and 24 in. H2O					C						
0.67 and 40 kPa	6.7 and 400 mbar	2.67 and 160 in. H2O					F						
4.17 and 250 kPa	41.7 and 2500 mbar	16.7 and 1000 in. H2O					L						
33.3 and 2000 kPa	0,333 and 20 bar	4.83 and 290 psi					N						
167 and 10000 kPa	1.67 and 100 bar	24.2 and 1450 psi					R						
Maximum Working Pressure – 8th character													
16 MPa	160 bar	2320 psi						C					
25 MPa	250 bar	3625 psi						Z					
41 MPa	410 bar	5945 psi						T					
Diaphragm Material / Fill Fluid – 9th character													
AISI 316L SST (1.4435)		Silicone oil				NACE			S				
Hastelloy C-276		Silicone oil				NACE			K				
Monel 400		Silicone oil				NACE			M				
Monel 400, gold-plated		Silicone oil				NACE			V				
Tantalum		Silicone oil				NACE			T				
AISI 316L SST (1.4435)		Inert fluid – Galden (Suitable for oxygen applications)				NACE			A				
Hastelloy C-276		Inert fluid – Galden (Suitable for oxygen applications)				NACE			F				
Monel 400		Inert fluid – Galden (Suitable for oxygen applications)				NACE			C				
Monel 400 gold-plated		Inert fluid – Galden (Suitable for oxygen applications)				NACE			Y				
Tantalum		Inert fluid – Galden (Suitable for oxygen applications)				NACE			D				
Diaphragm seal		Silicone oil (Seal to be quoted separately)							R				
Diaphragm seal		Inert fluid – Galden (Seal to be quoted separately)							2				
Process Flanges and Adapters Material / Connection – 10th character													
AISI 316L SST (1.4404 / 1.4408)	1/4-18 NPT female direct		(horizontal connection)			NACE				A			
AISI 316L SST (1.4404 / 1.4408)	1/2-14 NPT female through adapter		(horizontal connection)			NACE				B			
AISI 316L SST (1.4404 / 1.4408)	1/4-18 NPT female direct (DIN 19213)		(horizontal connection)			NACE				C			
Hastelloy C-276	1/4-18 NPT female direct		(horizontal connection)			NACE				D			
Hastelloy C-276	1/2-14 NPT female through adapter		(horizontal connection)			NACE				E			
Monel 400	1/4-18 NPT female direct		(horizontal connection)			NACE				G			
Monel 400	1/2-14 NPT female through adapter		(horizontal connection)			NACE				H			
AISI 316L SST (1.4404 / 1.4408)	For two seals construction					NACE				R			

Basic ordering information for model 266MRT Differential Pressure Transmitter				X	X	X
Bolts Material / Gaskets Material – 11th character						
AISI 316L SST (NACE - non exposed to H2S) / Viton (Suitable for oxygen applications)				3		
AISI 316L SST (NACE - non exposed to H2S) / PTFE (Max. 25 MPa / 250 bar / 3625 psi)				4		
AISI 316L SST (NACE - non exposed to H2S) / EPDM				5		
AISI 316L SST (NACE - non exposed to H2S) / Perbunan				6		
AISI 316L SST (NACE - non exposed to H2S) / Graphite				7		
AISI 316L SST (NACE - non exposed to H2S) / Without gaskets (For two seals construction)				R		
Housing Material / Electrical Connection – 12th character						
Aluminium alloy (Barrel type)	1/2-14 NPT				A	
Aluminium alloy (Barrel type)	M20 x 1.5				B	
Aluminium alloy (Barrel type)	Harting Han connector	(General purpose only)	(Note: 1)		E	
Aluminium alloy (Barrel type)	Fieldbus connector	(General purpose only)	(Note: 1)		G	
AISI 316L SST (Barrel type)	1/2-14 NPT				S	
AISI 316L SST (Barrel type)	M20 x 1.5				T	
Aluminium alloy (DIN type)	M20 x 1.5				J	
Aluminium alloy (DIN type)	Harting Han connector	(General purpose only)	(Note: 1)		K	
Aluminium alloy (DIN type)	Fieldbus connector	(General purpose only)	(Note: 1)		W	
AISI 316L SST (Barrel type)	Fieldbus connector	(General purpose only)	(Note: 1)		Z	
Output – 13th character						
HART digital communication and 4 … 20 mA (No additional options)						H
HART digital communication and 4 … 20 mA (Options requested by “Additional ordering code”)						1
PROFIBUS PA (No additional options)						P
PROFIBUS PA (Options requested by “Additional ordering code”)						2
FOUNDATION fieldbus (No additional options)						F
FOUNDATION fieldbus (Options requested by “Additional ordering code”)						3
HART digital communication and 4 … 20 mA, SIL2 and SIL3-certified in acc. with IEC 61508 (No additional options)						T
HART digital communication and 4 … 20 mA, SIL2 and SIL3-certified in acc. with IEC 61508 (Options requested by “Additional ordering code”)						8

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Additional ordering information for model 266MRT

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

				XX	XX
Vent and Drain Valve Material / Position					
AISI 316L SST (1.4404)	On process axis	NACE	V1		
AISI 316L SST (1.4404)	On flanges side top	NACE	V2		
AISI 316L SST (1.4404)	On flanges side bottom	NACE	V3		
Hastelloy C-276	On process axis	NACE	V4		
Hastelloy C-276	On flanges side top	NACE	V5		
Hastelloy C-276	On flanges side bottom	NACE	V6		
Monel 400	On process axis	NACE	V7		
Monel 400	On flanges side top	NACE	V8		
Monel 400	On flanges side bottom	NACE	V9		
Explosion Protection Certification					
ATEX Group II Category 1 GD - Intrinsic Safety Ex ia					E1
ATEX Group II Category 1/2 GD - Flameproof Ex d					E2
ATEX Group II Category 3 GD - Type of protection "N" Ex nL design compliance					E3
FM approval (Canada, CSA) Class I, II, Div. 1, 2, Group A to F (XP, IS, NI)					
(Only available with 1/2-14 NPT or M20 electrical connections)					E4
FM approval (USA) Class I, II, Div. 1, 2, Group A to F (XP, IS, NI)					
(Only available with 1/2-14 NPT or M20 electrical connections)					E6
Combined ATEX - Intrinsic Safety, Flameproof and Type „N“					EW
FM approvals (USA and Canada) Intrinsic Safety					EA
FM approvals (USA and Canada) Explosion-proof					EB
FM approvals (USA and Canada) Non-incendive					EC
Combined ATEX, FM and CSA (Only available with 1/2-14 NPT or M20 electrical connections)					EN
IEC Approval Group II Category 1 GD - Intrinsic Safety Ex ia					E8
IEC Approval Group II Category 1/2 GD - Flameproof Ex d					E9
IEC Approval Group II Category 3 GD - Type of protection "N" Ex nL design compliance					ER
Combined IEC Approval Ex ia and Ex d					EH
Combined IEC Approval Ex ia, Ex d and Ex nL					EI
NEPSI IIC Ex ia					EY
NEPSI IIC Ex d					EZ
NEPSI IIC Ex nL					ES
Combined NEPSI Ex ia and Ex d					EP
Combined NEPSI Ex ia, Ex d and Ex nL					EQ

Additional ordering information for model 266MRT	XX	XX	XX	XX	XX	XX
Other Explosion Protection Certifications						
GOST Russia - Ex ia	W1					
GOST Russia - Ex d	W2					
GOST Kazakhstan - Ex ia	W3					
GOST Kazakhstan - Ex d	W4					
Integral LCD						
With integral LCD display		L1				
TTG (Through The Glass) integral digital LCD display		L5				
Mounting Bracket Shape / Material						
For pipe mounting / Carbon steel (Not suitable for AISI housing)			B1			
For pipe mounting / AISI 316 SST (1.4401) (Not suitable for AISI housing)			B2			
For wall mounting / Carbon steel (Not suitable for AISI housing)			B3			
For wall mounting / AISI 316 SST(1.4401) (Not suitable for AISI housing)			B4			
Flat type bracket / AISI 316 SST (1.4401) (Not suitable for AISI housing)			B5			
Surge /Transient Protector						
With integral surge / transient protector				S2		
Operating Instruction Language						
German					M1	
Italian					M2	
Spanish					M3	
French					M4	
English					M5	
Swedish					M7	
Polish					M9	
Portuguese					MA	
Turkish					MT	
Label and Tag Language						
German						T1
Italian						T2
Spanish						T3
French						T4

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Additional ordering information for model 266MRT	XX	XX	XX	XX
Additional Tag Plate				
Supplemental wired-on stainless steel plate (4 lines, 32 characters each)	I1			
Laser printing of tag on stainless steel plate	I2			
Stainless steel tag, certifikation and wire-on plates	I3			
Configuration (units visible on type label)				
Standard pressure = in. H2O / psi at 68 °F		N2		
Standard pressure = in. H2O / psi at 39.2 °F		N3		
Standard pressure = in. H2O / psi at 20 °C		N4		
Standard pressure = in. H2O / psi at 4 °C		N5		
Custom		N6		
Certificates				
Inspection certificate 3.1 acc. EN 10204 of calibration			C1	
Inspection certificate 3.1 acc. EN 10204 of helium leakage test of the sensor module			C4	
Inspection certificate 3.1 acc. EN 10204 of pressure test			C5	
Declaration of compliance with the order 2.1 acc. EN 10204 for instrument design			C6	
Separate calibration record			CC	
Printed record of configured data of transmitter			CG	
PMI test on wetted parts			CT	
Approvals				
GOST Russia - Without Explosion Protection				Y1
GOST Kazakhstan - Without Explosion Protection				Y2
GOST Ukraine - Without Explosion Protection				Y3
GOST Belarus - Without Explosion Protection				Y4

Additional ordering information for model 266MRT		XX	XX	XX
Material Traceability				
Certificate of compliance with the order 2.1 acc. EN 10204 for process wetted parts		H1		
Inspection certificate 3.1 acc. EN 10204 of pressure-bearing and process wetted parts with analysis certificates as material verification	(Note: 2)	H3		
Material certificate 2.2 acc. EN 10204 for the pressure bearing and process wetted parts		H4		
Connector				
Fieldbus 7/8 in. (Recommended for FOUNDATION fieldbus, supplied loose without female plug)			U1	
Fieldbus M12 x 1 (Recommended for PROFIBUS PA, supplied loose without female plug)			U2	
Harting Han 8D (8U), straight entry			U3	
Harting Han 8D (8U), angle entry			U4	
Harting Han 7D			U5	
Harting Han 8D (8U) - For Four-Wire add-on Unit			U6	
Harting Han 7D - For Four-Wire add-on Unit			U7	
With cable gland M20 x 1.5			U8	
Housing Accessories				
Four-wire add-on unit: Power supply 24 V UC / Output signal 0 ... 20 mA	(Note: 3)			A4
Four-wire add-on unit: Power supply 24 V UC / Output signal 4 ... 20 mA	(Note: 3)			A6
Four-wire add-on unit: Power supply 230 V AC / Output signal 0 ... 20 mA	(Note: 3)			A5
Four-wire add-on unit: Power supply 230 V AC / Output signal 4 ... 20 mA	(Note: 3)			A7
Seal Type High / Low Pressure Side				
For ordering information please refer to seal data sheet DS/S26.				

Note 1: Select connector with additional ordering code
Note 2: Minor parts with factory certificate acc. EN 10204
Note 3: Only available with Housing Material / Electrical Connection code J (DIN housing)

Standard delivery scope (changes possible with additional ordering code)

- Adapters supplied loose
- Plugs for process axis (no vent / drain valves)
- For standard applications (without explosion protection)
- No display, no mounting bracket, no surge protection
- Multilanguage short-form operating instruction and English labeling
- Configuration with kPa and °C units
- No test, inspection, or material certificates

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Basic ordering information for model 266RRT Absolute Pressure Transmitter with remote seal, overpressure depending on seal / sensor limits

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					266RRT	X	X	X	X	X	X	
Absolute pressure transmitter with remote seal, base accuracy 0.04 %												
Sensor Span Limits – 7th character												
2 and 40 kPa	20 and 400 mbar	8 and 160 in. H2O	15 and 300 mm Hg			F						
12.5 and 250 kPa	125 and 2500 mbar	50 and 1000 in. H2O	95 and 1875 mm Hg			L						
100 and 2000 kPa	1 and 20 bar	15 and 290 psi				N						
Maximum Working Pressure – 8th character												
16 MPa	160 bar	2320 psi					C					
25 MPa	250 bar	3625 psi					Z					
41 MPa	410 bar	5945 psi					T					
Diaphragm Material / Fill Fluid – 9th character												
Diaphragm seal		Silicone oil (Seal to be quoted separately)						R				
Diaphragm seal		Inert fluid - Galden (Seal to be quoted separately)						2				
Process Connection Material / Type – 10th character												
Diaphragm seal (Except button type, seal to be quoted separately)									R			
Housing Material / Electrical Connection – 11th character												
Aluminium alloy (Barrel type)		1/2-14 NPT								A		
Aluminium alloy (Barrel type)		M20 x 1.5								B		
Aluminium alloy (Barrel type)		Harting Han connector	(General purpose only)	(Note: 1)						E		
Aluminium alloy (Barrel type)		Fieldbus connector	(General purpose only)	(Note: 1)						G		
AISI 316L SST (Barrel type)		1/2-14 NPT								S		
AISI 316L SST (Barrel type)		M20 x 1.5								T		
Aluminium alloy (DIN type)		M20 x 1.5								J		
Aluminium alloy (DIN type)		Harting Han connector	(General purpose only)	(Note: 1)						K		
Aluminium alloy (DIN type)		Fieldbus connector	(General purpose only)	(Note: 1)						W		
AISI 316L SST (Barrel type)		Fieldbus connector	(General purpose only)	(Note: 1)						Z		
Output – 12th character												
HART digital communication and 4 … 20 mA (No additional options)												H
HART digital communication and 4 … 20 mA (Options requested by “Additional ordering code”)												1
PROFIBUS PA (No additional options)												P
PROFIBUS PA (Options requested by “Additional ordering code”)												2
FOUNDATION fieldbus (No additional options)												F
FOUNDATION fieldbus (Options requested by “Additional ordering code”)												3
HART digital communication and 4 … 20 mA, SIL2 and SIL3-certified to IEC 61508 (No additional options)												T
HART digital communication and 4 … 20 mA, SIL2 and SIL3-certified to IEC 61508 (Options requested by “Additional ordering code”)												8

Additional ordering information for model 266RRT

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

	XX	XX
Explosion Protection Certification		
ATEX Group II Category 1 GD - Intrinsic Safety Ex ia	E1	
ATEX Group II Category 1/2 GD - Flameproof Ex d	E2	
ATEX Group II Category 3 GD - Type of protection "N" Ex nL design compliance	E3	
FM approval (Canada, CSA) Class I, II, Div. 1, 2, Group A to F (XP, IS, NI)		
(Only available with 1/2-14 NPT or M20 electrical connections)	E4	
FM approval (USA) Class I, II, Div. 1, 2, Group A to F (XP, IS, NI)		
(Only available with 1/2-14 NPT or M20 electrical connections)	E6	
Combined ATEX - Intrinsic Safety, Flameproof and Type „N“	EW	
FM approvals (USA and Canada) Intrinsic Safety	EA	
FM approvals (USA and Canada) Explosion-proof	EB	
FM approvals (USA and Canada) Non-incendive	EC	
Combined ATEX, FM and CSA (Only available with 1/2-14 NPT or M20 electrical connections)	EN	
IEC Approval Group II Category 1 GD - Intrinsic Safety Ex ia	E8	
IEC Approval Group II Category 1/2 GD - Flameproof Ex d	E9	
IEC Approval Group II Category 3 GD - Type of protection "N" Ex nL design compliance	ER	
Combined IEC Approval Ex ia and Ex d	EH	
Combined IEC Approval Ex ia, Ex d and Ex nL	EI	
NEPSI IIC Ex ia	EY	
NEPSI IIC Ex d	EZ	
NEPSI IIC Ex nL	ES	
Combined NEPSI Ex ia and Ex d	EP	
Combined NEPSI Ex ia, Ex d and Ex nL	EQ	
Other Explosion Protection Certifications		
GOST Russia - Ex ia		W1
GOST Russia - Ex d		W2
GOST Kazakhstan - Ex ia		W3
GOST Kazakhstan - Ex d		W4

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Additional ordering information for model 266RRT	XX	XX	XX	XX	XX	XX
Integral LCD						
With integral LCD display	L1					
TTG (Through The Glass) integral digital LCD display	L5					
Mounting Bracket Shape / Material						
For pipe mounting / Carbon steel (Not suitable for AISI housing)		B1				
For pipe mounting / AISI 316 SST (1.4401) (Not suitable for AISI housing)		B2				
For wall mounting / Carbon steel (Not suitable for AISI housing)		B3				
For wall mounting / AISI 316 SST (1.4401) (Not suitable for AISI housing)		B4				
Flat type bracket / AISI 316 SST (1.4401) (Suitable for AISI housing)		B5				
Surge / Transient Protector						
With integral surge / transient protector			S2			
Operating Instruction Language						
German				M1		
Italian				M2		
Spanish				M3		
French				M4		
English				M5		
Swedish				M7		
Polish				M9		
Portuguese				MA		
Turkish				MT		
Label and Tag Language						
German					T1	
Italian					T2	
Spanish					T3	
French					T4	
Additional Tag Plate						
Supplemental wired-on stainless steel plate (4 lines, 32 characters each)						I1
Laser printing of tag on stainless steel plate						I2
Stainless steel tag, certifikation and wire-on plates						I3

Additional ordering information for model 266RRT	XX	XX	XX	XX
Configuration (units visible on type label)				
Standard pressure = in. H2O / psi at 68 °F	N2			
Standard pressure = in. H2O / psi at 39.2 °F	N3			
Standard pressure = in. H2O / psi at 20 °C	N4			
Standard pressure = in. H2O / psi at 4 °C	N5			
Custom	N6			
Certificates				
Inspection certificate 3.1 acc. EN 10204 of calibration		C1		
Inspection certificate 3.1 acc. EN 10204 of helium leakage test of the sensor module		C4		
Declaration of compliance with the order 2.1 acc. EN 10204 for instrument design		C6		
Separate calibration record		CC		
Printed record of configured data of transmitter		CG		
PMI test on wetted parts		CT		
Approvals				
GOST Russia - Without Explosion Protection			Y1	
GOST Kazakhstan - Without Explosion Protection			Y2	
GOST Ukraine - Without Explosion Protection			Y3	
GOST Belarus - Without Explosion Protection			Y4	
Material Traceability				
Certificate of compliance with the order 2.1 acc. EN 10204 for process wetted parts				H1
Inspection certificate 3.1 acc. EN 10204 of pressure-bearing and process wetted parts with analysis certificates as material verification (Note: 2)				H3
Material certificate 2.2 acc. EN 10204 for the pressure bearing and process wetted parts				H4

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Additional ordering information for model 266RRT		XX	XX
Connector			
Fieldbus 7/8 in. (Recommended for FOUNDATION fieldbus, supplied loose without female plug)		U1	
Fieldbus M12 x 1 (Recommended for PROFIBUS PA, supplied loose without female plug)		U2	
Harting Han 8D (8U), straight entry		U3	
Harting Han 8D (8U), angle entry		U4	
Harting Han 7D		U5	
Harting Han 8D (8U) - For Four-Wire add-on Unit		U6	
Harting Han 7D - For Four-Wire add-on Unit		U7	
With cable gland M20 x 1.5		U8	
Housing Accessories			
Four-wire add-on unit: Power supply 24 V UC / Output signal 0 ... 20 mA	(Note: 3)		A4
Four-wire add-on unit: Power supply 24 V UC / Output signal 4 ... 20 mA	(Note: 3)		A6
Four-wire add-on unit: Power supply 230 V AC / Output signal 0 ... 20 mA	(Note: 3)		A5
Four-wire add-on unit: Power supply 230 V AC / Output signal 4 ... 20 mA	(Note: 3)		A7
Plug upside welded			A8
Plug bottom welded			A9
Seal type High Pressure Side			
For ordering information please refer to seal data sheet DS/S26.			

Note 1: Select connector with additional ordering code
Note 2: Minor parts with factory certificate acc. EN 10204
Note 3: Only available with Housing Material / Electrical Connection code J (DIN housing)

Standard delivery scope (changes possible with additional ordering code)

- For standard applications (without explosion protection)
- No display, no mounting bracket, no surge protection
- Multilanguage short-form operating instruction and English labeling
- Configuration with kPa and °C units
- No test, inspection, or material certificates

Main ordering information for model 266GRT gauge pressure transmitter with remote diaphragm seal, overpressure limit dependent upon diaphragm seal / pressure sensor limits

Select one or more characters from each category and enter the complete catalog number.
Enter one or more codes for additional order information if you are purchasing optional extras for each transmitter.

Base model – Characters 1 through 6						266GRT	X	X	X	X	X
Gauge pressure transmitter with remote seal, base accuracy 0.04 %											
Sensor measuring range limits – Character 7											
0.6 and 6 kPa	6 and 60 mbar	2.41 and 24 in. H2O	/	1 MPa	(10 bar, 145 psi)		C				
0.67 and 40 kPa	6.7 and 400 mbar	2.67 and 160 in. H2O	/	1 MPa	(10 bar, 145 psi)		F				
4.17 and 250 kPa	41.7 and 2500 mbar	16.7 and 1000 in. H2O	/	3 MPa	(30 bar, 435 psi)		L				
16.7 and 1000 kPa	0.167 and 10 bar	2.42 and 145 psi	/	6 MPa	(60 bar, 870 psi)		D				
50 and 3000 kPa	0.5 and 30 bar	7.25 and 435 psi	/	6 MPa	(60 bar, 870 psi)		U				
167 and 10000 kPa	1.67 and 100 bar	24.2 and 1450 psi	/	30 MPa	(300 bar, 4350 psi)		R				
1,000 and 60000 kPa	10 and 600 bar	145 and 8700 psi	/	90 MPa	(900 bar, 13050 psi)		V				
Diaphragm material / filling fluid – Character 8											
Diaphragm seal mounted		Silicone oil (specify diaphragm seal separately)						R			
Diaphragm seal mounted		Fluorocarbon - Galden (specify diaphragm seal separately)						2			
Diaphragm seal mounted		White oil (specify diaphragm seal separately)						N			
Process connection material / type – Character 9											
Diaphragm seal (except in the case of button diaphragm seals, specify diaphragm seal separately)									R		
Button diaphragm seal (specify button diaphragm seal separately)									G		
Housing material / electrical connection – Character 10											
Aluminum alloy (barrel type)		1/2-14 NPT								A	
Aluminum alloy (barrel type)		M20 x 1.5								B	
Aluminum alloy (barrel type)		Harting Han plug connector		(for standard applications)		(Note: 1)				E	
Aluminum alloy (barrel type)		Fieldbus plug connector		(for standard applications)		(Note: 1)				G	
Stainless steel (barrel type)		1/2-14 NPT								S	
Stainless steel (barrel type)		M20 x 1.5								T	
Aluminum alloy (DIN type)		M20 x 1.5								J	
Aluminum alloy (DIN type)		Harting Han plug connector		(for standard applications)		(Note: 1)				K	
Aluminum alloy (DIN type)		Fieldbus plug connector		(for standard applications)		(Note: 1)				W	
Stainless steel (barrel type)		Fieldbus plug connector		(for standard applications)		(Note: 1)				Z	
Output – Character 11											
HART digital communication and 4 … 20 mA (no additional options)											H
HART digital communication and 4 … 20 mA (product selection with additional order code)											1
PROFIBUS PA (no additional options)											P
PROFIBUS PA (product selection with additional order code)											2
FOUNDATION fieldbus (no additional options)											F
FOUNDATION fieldbus (product selection with additional order code)											3
HART digital communication and 4 … 20 mA, SIL2 and SIL3-certified in acc. with IEC 61508 (no additional options)											T
HART digital communication and 4 … 20 mA, SIL2 and SIL3-certified in acc. with IEC 61508 (product selection with additional order code)											8

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Additional ordering information for model 266GRT

All required options have to be entered by adding a one-digit or two-digit code or codes after the main order number.

	XX	XX
Explosion protection		
ATEX II Category 1 GD, Intrinsic safety Ex ia	E1	
ATEX II Category 1/2 GD, Flameproof (enclosure) Ex d	E2	
ATEX II Category 3 GD, Energy-limited Ex nL	E3	
FM approval (Canada, CSA) Class I, II, Div 1, 2, Group A to F (XP, IS, NI)		
(Only available with electrical connection 1/2-14 NPT or M20)	E4	
FM approval (USA) Class I, II, Div 1, 2, Group A to F (XP, IS, NI)		
(Only available with electrical connection 1/2-14 NPT or M20)	E6	
ATEX II 1 GD, Ex ia + ATEX II 1/2 GD, Ex d and ATEX II 3 GD, Ex nL	EW	
FM approvals (USA and Canada) Intrinsic safety	EA	
FM approvals (USA and Canada) Explosion-proof	EB	
FM approvals (USA and Canada) Non-incendive	EC	
ATEX + FM + CSA (Only available with electrical connection 1/2-14 NPT or M20)	EN	
IECEx II Category 1 GD, Intrinsic safety Ex ia	E8	
IECEx II Category 1/2 GD, Flameproof (enclosure) Ex d	E9	
IECEx II Category 3 GD, Energy-limited Ex nL	ER	
IEC combined Ex ia and Ex d	EH	
IEC combined Ex ia, Ex d and Ex nL	EI	
NEPSI Intrinsic safety Ex ia	EY	
NEPSI Flameproof (enclosure) Ex d	EZ	
NEPSI type "N" Ex nL	ES	
NEPSI combined - Intrinsic safety and flameproof (enclosure)	EP	
NEPSI combined - Intrinsic safety, flameproof (enclosure), and type "N"	EQ	
Explosion protection (supplement)		
GOST Russia - Ex ia		W1
GOST Russia - Ex d		W2
GOST Kazakhstan - Ex ia		W3
GOST Kazakhstan - Ex d		W4

Additional ordering information for model 266GRT	XX	XX	XX	XX	XX	XX
Integrated digital display (LCD)						
With integral LCD display	L1					
With integrated touch screen LCD display (TTG)	L5					
Mounting bracket / material						
For horizontal or vertical pipe and wall mounting / carbon steel		B6				
For horizontal or vertical pipe and wall mounting /AISI 316 (1.4401)		B7				
Overvoltage protection						
With overvoltage protection (transient protector)			S2			
Language of documentation						
German				M1		
Italian				M2		
Spanish				M3		
French				M4		
English				M5		
Swedish				M7		
Polish				M9		
Portuguese				MA		
Turkish				MT		
Label and tag language (material)						
German					T1	
Italian					T2	
Spanish					T3	
French					T4	
Additional tag plate						
Tag plate made from stainless steel (4 lines with 30 characters each)						I1
Measuring point tag laser-printed onto stainless steel plate						I2
Measuring point, certification and tag plate made from stainless steel						I3

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Additional ordering information for model 266GRT	XX	XX	XX	XX
Configuration (units for tag plate name)				
Standard pressure = in. H2O / psi at 68 °F	N2			
Standard pressure = in. H2O / psi at 39.2 °F	N3			
Standard pressure = in. H2O / psi at 20 °C	N4			
Standard pressure = in. H2O / psi at 4 °C	N5			
Customer-specific	N6			
Certificates				
Inspection certificate 3.1 to EN 10204 for calibration		C1		
Inspection certificate 3.1 to EN 10204 for helium leakage test of measuring chamber		C4		
Inspection certificate 3.1 to EN 10204 for pressure test		C5		
Declaration of compliance 2.1 to EN 10204 for device design		C6		
Calibration log separate		CC		
With device data log		CG		
PMI test of parts that come into contact with fluid		CT		
Approvals				
GOST Russia - without Ex			Y1	
GOST Kazakhstan - without Ex			Y2	
GOST Ukraine - without Ex			Y3	
GOST Belarus - without Ex			Y4	
Material certification				
Declaration of compliance 2.1 to EN 10204 for materials of parts that come into contact with fluid				H1
Inspection certificate 3.1 to EN 10204 for pressure-bearing parts and parts that come into contact with fluid, with analysis reports as evidence of material used (Note: 2)				H3
Declaration of compliance 2.2 to EN 10204 for pressure-bearing parts and parts that come into contact with fluid				H4

Additional ordering information for model 266GRT		XX	XX
Plug connector			
Fieldbus 7/8 in. (recommended for FOUNDATION fieldbus, supplied loose, without mating plug)		U1	
Fieldbus M12 x 1 (recommended for PROFIBUS PA, supplied loose, without mating plug)		U2	
Harting Han 8D (8U), straight entry		U3	
Harting Han 8D (8U), angle entry		U4	
Harting Han 7D		U5	
Harting HAN 8D (8U), for four-wire accessory unit		U6	
Harting HAN 7D, for four-wire accessory unit		U7	
With cable gland M20 x 1.5		U8	
Housing accessories			
Four-wire accessory unit: power supply 24 V UC / output signal 0 ... 20 mA	(Note: 3)		A4
Four-wire accessory unit: power supply 24 V UC / output signal 4 ... 20 mA	(Note: 3)		A6
Four-wire accessory unit: power supply 230 V AC / output signal 0 ... 20 mA	(Note: 3)		A5
Four-wire accessory unit: power supply 230 V AC / output signal 4 ... 20 mA	(Note: 3)		A7
Seal Type High Pressure Side			
For ordering information please refer to seal data sheet DS/S26.			

Note 1: Select plug connector with additional order code
Note 2: Small parts with declaration of compliance according to EN 10204
Note 3: Only available with housing material / electrical connection code B (barrel housing)

Standard delivery scope (changes possible with additional ordering code)

- For standard applications (without explosion protection)
- No display, no mounting bracket, no surge protection
- Multilanguage short-form operating instruction and English labeling
- Configuration with kPa and °C units
- No test, inspection, or material certificates

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Main ordering information for model 266ART absolute pressure transmitter with remote diaphragm seal, overpressure limit dependent upon diaphragm seal / pressure sensor limits

Select one or more characters from each category and enter the complete catalog number.

Enter one or more codes for additional order information if you are purchasing optional extras for each transmitter.

Base model – Characters 1 through 6						266ART	X	X	X	X	X
Absolute pressure transmitter with remote seal, base accuracy 0.04 %											
Sensor measuring range limits – Character 7											
1.2 and 6 kPa	12 and 60 mbar	4.82 and 24 in. H2O	9 and 45 mm Hg / 1 MPa (10 bar, 145 psi)				C				
2 and 40 kPa	20 and 400 mbar	15 and 300 mm Hg	/	1 MPa (10 bar, 145 psi)			F				
12.5 and 250 kPa	125 and 2500 mbar	93.8 and 1,875 mm Hg	/	3 MPa (30 bar, 435 psi)			L				
50 and 1000 kPa	0.5 and 10 bar	7.25 and 145 psi	/	6 MPa (60 bar, 870 psi)			D				
150 and 3000 kPa	1.5 and 30 bar	21.7 and 435 psi	/	6 MPa (60 bar, 870 psi)			U				
500 and 10000 kPa	5 and 100 bar	72.5 and 1450 psi	/	30 MPa (300 bar, 4350 psi)			R				
Diaphragm material / filling fluid – Character 8											
Diaphragm seal mounted	Silicone oil (specify diaphragm seal separately)							R			
Diaphragm seal mounted	Fluorocarbon - Galden (specify diaphragm seal separately)							2			
Diaphragm seal mounted	White oil (specify diaphragm seal separately)							N			
Process connection material / type – Character 9											
Diaphragm seal (except in the case of button diaphragm seals, specify diaphragm seal separately)									R		
Button diaphragm seal (specify button diaphragm seal separately)									G		
Housing material / electrical connection – Character 10											
Aluminum alloy (barrel type)	1/2-14 NPT									A	
Aluminum alloy (barrel type)	M20 x 1.5									B	
Aluminum alloy (barrel type)	Harting Han plug connector	(for standard applications)	(Note: 1)							E	
Aluminum alloy (barrel type)	Fieldbus plug connector	(for standard applications)	(Note: 1)							G	
Stainless steel (barrel type)	1/2-14 NPT									S	
Stainless steel (barrel type)	M20 x 1.5									T	
Aluminum alloy (DIN type)	M20 x 1.5									J	
Aluminum alloy (DIN type)	Harting Han plug connector	(for standard applications)	(Note: 1)							K	
Aluminum alloy (DIN type)	Fieldbus plug connector	(for standard applications)	(Note: 1)							W	
Stainless steel (barrel type)	Fieldbus plug connector	(for standard applications)	(Note: 1)							Z	
Output – Character 11											
HART digital communication and 4 … 20 mA (no additional options)											H
HART digital communication and 4 … 20 mA (product selection with additional order code)											1
PROFIBUS PA (no additional options)											P
PROFIBUS PA (product selection with additional order code)											2
FOUNDATION fieldbus (no additional options)											F
FOUNDATION fieldbus (product selection with additional order code)											3
HART digital communication and 4 … 20 mA, SIL2 and SIL3-certified in acc. with IEC 61508 (no additional options)											T
HART digital communication and 4 … 20 mA, SIL2 and SIL3-certified in acc. with IEC 61508 (product selection with additional order code)											8

Additional ordering information for model 266ART

All required options have to be entered by adding a one-digit or two-digit code or codes after the main order number.

		XX	XX
Explosion protection			
ATEX II Category 1 GD, Intrinsic safety Ex ia		E1	
ATEX II Category 1/2 GD, Flameproof (enclosure) Ex d		E2	
ATEX II Category 3 GD, Energy-limited Ex nL		E3	
FM approval (Canada, CSA) Class I, II, Div 1, 2, Group A to F (XP, IS, NI)			
(Only available with electrical connection 1/2-14 NPT or M20)		E4	
FM approval (USA) Class I, II, Div 1, 2, Group A to F (XP, IS, NI)			
(Only available with electrical connection 1/2-14 NPT or M20)		E6	
ATEX II 1 GD, Ex ia + ATEX II 1/2 GD, Ex d and ATEX II 3 GD, Ex nL		EW	
FM approvals (USA and Canada) Intrinsic safety		EA	
FM approvals (USA and Canada) Explosion-proof		EB	
FM approvals (USA and Canada) Non-incendive		EC	
ATEX + FM + CSA (only available with electrical connection 1/2-14 NPT or M20)		EN	
IECEx II Category 1 GD, Intrinsic safety Ex ia		E8	
IECEx II Category 1/2 GD, Flameproof (enclosure) Ex d		E9	
IECEx II Category 3 GD, Energy-limited Ex nL		ER	
IEC combined Ex ia and Ex d		EH	
IEC combined Ex ia, Ex d and Ex nL		EI	
NEPSI Intrinsic safety Ex ia		EY	
NEPSI Flameproof (enclosure) Ex d		EZ	
NEPSI type “N“ Ex nL		ES	
NEPSI combined - Intrinsic safety and flameproof (enclosure)		EP	
NEPSI combined - Intrinsic safety, flameproof (enclosure), and type “N“		EQ	
Explosion protection (supplement)			
GOST Russia Ex ia			W1
GOST Russia Ex d	(Note: 2)		W2
GOST Kazakhstan Ex ia			W3
GOST Kazakhstan Ex d	(Note: 2)		W4

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Additional ordering information for model 266ART	XX	XX	XX	XX	XX	XX
Integrated digital display (LCD)						
With integrated LCD display	L1					
With integral touch screen LCD display (TTG)	L5					
Mounting bracket / material						
For horizontal or vertical pipe and wall mounting / carbon steel		B6				
For horizontal or vertical pipe and wall mounting /AISI 316 (1.4401)		B7				
Overvoltage protection						
With overvoltage protection (transient protector)			S2			
Language of documentation						
German				M1		
Italian				M2		
Spanish				M3		
French				M4		
English				M5		
Swedish				M7		
Polish				M9		
Portuguese				MA		
Turkish				MT		
Label and tag language						
German					T1	
Italian					T2	
Spanish					T3	
French					T4	
Additional tag plate						
Tag plate made from stainless steel (4 lines with 30 characters each)						I1
Measuring point tag laser-printed onto stainless steel plate						I2
Measuring point, certification and tag plate made from stainless steel						I3

Additional ordering information for model 266ART	XX	XX	XX	XX
Configuration (units for tag plate name)				
Standard pressure = in. H2O / psi at 68 °F	N2			
Standard pressure = in. H2O / psi at 39.2 °F	N3			
Standard pressure = in. H2O / psi at 20 °C	N4			
Standard pressure = in. H2O / psi at 4 °C	N5			
Customer-specific	N6			
Certificates				
Inspection certificate 3.1 to EN 10204 for calibration		C1		
Inspection certificate 3.1 to EN 10204 for helium leakage test of measuring chamber		C4		
Inspection certificate 3.1 to EN 10204 for pressure test		C5		
Declaration of compliance 2.1 to EN 10204 for device design		C6		
Calibration log separate		C9		
With device data log		CG		
PMI test of wetted parts		CT		
Approvals				
GOST Russia - without Ex			Y1	
GOST Kazakhstan - without Ex			Y2	
GOST Ukraine - without Ex			Y3	
GOST Belarus - without Ex			Y4	
Material certification				
Declaration of compliance 2.1 to EN 10204 for wetted parts				H1
Inspection certificate 3.1 to EN 10204 for pressure-bearing parts and wetted parts, with analysis reports as evidence of material used (Note: 3)				H3
Declaration of compliance 2.2 to EN 10204 for pressure-bearing parts and wetted parts				H4

Model 266MRT Differential
Model 266GRT Gauge
Model 266RRT and 266ART Absolute

Additional ordering information for model 266ART		XX	XX
Plug connector			
Fieldbus 7/8 in. (recommended for FOUNDATION fieldbus, supplied loose, without mating plug)		U1	
Fieldbus M12 x 1 (recommended for PROFIBUS PA, supplied loose, without mating plug)		U2	
Harting Han 8D (8U), straight entry		U3	
Harting Han 8D (8U), angle entry		U4	
Harting Han 7D		U5	
Harting Han 8D (8U), for four-wire accessory unit		U6	
Harting Han 7D, for four-wire accessory unit		U7	
With cable gland M20 x 1.5		U8	
Housing accessories			
Four-wire accessory unit: power supply 24 V UC / output signal 0 ... 20 mA	(Note: 4)		A4
Four-wire accessory unit: power supply 24 V UC / output signal 4 ... 20 mA	(Note: 4)		A6
Four-wire accessory unit: power supply 230 V AC / output signal 0 ... 20 mA	(Note: 4)		A5
Four-wire accessory unit: power supply 230 V AC / output signal 4 ... 20 mA	(Note: 4)		A7
Diaphragm seal type, high pressure side			
Ordering information, see diaphragm seal data sheet DS/S26			

Note 1: Select plug connector with additional order code
Note 2: Not available with sensor measuring range limits Code C, F
Note 3: Small parts with declaration of compliance according to EN 10204
Note 4: Only available with housing material / electrical connection code B (barrel housing)

Standard delivery scope (changes possible with additional ordering code)

- For standard applications (without explosion protection)
- No display, no mounting bracket, no surge protection
- Multilanguage short-form operating instruction and English labeling
- Configuration with kPa and °C units
- No test, inspection, or material certificates

Important remark for all models

The selection of suitable wetted parts and filling fluid for compatibility with the process media is a customers 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. Materials AISI 316 / AISI 316L, Hastelloy C-276, Monel 400 also conform to NACE MR0103 for sour refining environments.

2 NACE MR0175 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:** the bolting must not be directly exposed to sour environments, and must be directly exposed to the atmosphere at all times.

266MRT, 266RRT bolting identified by “NACE” are in compliance to the requirements of NACE MR0175 when considered “non exposed bolting”.

Trademarks

™ Hastelloy C-276 is a Cabot Corporation trademark
™ Hastelloy C-2000 is a Haynes International trademark
™ Monel is an International Nickel Co. trademark
™ Viton is a DuPont de Nemours trademark
™ DC200 is a Dow Corning Corporation trademark
™ DC704 is a Dow Corning Corporation trademark
™ Galden is a Montefluos trademark
™ Halocarbon is a Halocarbon Products Co. trademark
™ Neobee M 20 is a Stepan Company trademark
™ Esso Marcol 122 is an Esso Italiana trademark
™ Syltherm is a Dow Chemical Company trademark

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