

### AMZ 5455



#### DESCRIPTION

The AMZ 5455 series pressure transmitters are designed for various industrial applications, offering an accuracy of up to  $\pm 0.075\%$  of span and active temperature compensation that eliminates additional temperature errors. They output a 4–20 mA two-wire analog signal with HART® digital communication. The local LCD display features a backlight and can be mounted at 0°, 90°, 180°, or 270° for flexible installation and easy reading.

The transmitters feature high overload resistance, excellent long-term stability, and a wide range of process connections and options.

#### SPECIFICATIONS

Pressure ranges: 0...15 mbar to 0...600 bar

Overpressure: up to 1050 bar

Accuracy: up to  $\pm 0.075\%$  of span

Output / Communication: 4...20 mA / HART®

Explosion protection: 0Ex ia IIC T6...T4 Ga X, 1Ex d IIC T6...T4 Gb X, 1Ex d ia IIC T6...T4 Gb X

Diaphragm: stainless steel

Process connections:

- Version 00 - 1/2" NPT internal - standard, other configurations provided by adapter;

- Version 0T - connection configuration to be agreed upon order

Turndown ratio: up to 100:1

LCD display with backlight (option)

Hydrostatic version (option)

HART® is a registered trademark of the HART Communication Foundation.

#### APPLICATIONS

Liquid, steam and gas pressure measurement

Level monitoring in open tanks

## TECHNICAL SPECIFICATIONS

### MEASURING RANGES

Version 00			Version 0T		
Gauge pressure range, $P_N^*$	Turndown ratio, $P_N/P_{set}^*$	Overpressure, MPa	Gauge/Absolute pressure range, $P_N^*$	Turndown ratio $P_N/P_{set}^*$	Overpressure, MPa
0...1.5 kPa	10:1	1	–	–	–
0...7.5 kPa	30:1	4	–	–	–
0...37 kPa	100:1	13.8	0...37 kPa	10:1	0.1
0...187 kPa	100:1	13.8	0...187 kPa	10:1	0.6
0...690 kPa	100:1	13.8	0...690 kPa	10:1	1.5
0...2 MPa	100:1	13.8	0...2 MPa	10:1	6
0...7 MPa	100:1	13.8	0...7 MPa	10:1	10
–	–	–	0...10 MPa	10:1	15
–	–	–	0...20 MPa	10:1	30
–	–	–	0...40 MPa	10:1	105
–	–	–	0...60 MPa	10:1	105

\* – By default, the nominal measurement range  $P_N$  equals the upper range limit (URL), with the lower range limit (LRL) set to 0. For gauge pressure transmitters, the LRL can be set to a value equal to or less than the URL in magnitude (but negative), or to -100 kPa if URL is  $\geq 187$  kPa.

The calibrated span ( $P_{set}$ ) is defined as the difference between URL and LRL.

The pressure transmitter supports the following measurement units: inH<sub>2</sub>O, inHg, ftH<sub>2</sub>O, mmH<sub>2</sub>O, mmHg, psi, bar, mbar, g/cm<sup>2</sup>, kg/cm<sup>2</sup>, Pa, kPa, MPa, atm, Torr. Switching between measurement units can be performed remotely using a HART® modem/communicator or locally.

When switching units, the range of the digital display range should be taken into account.

### PERFORMANCE

Pressure ranges	Turndown	Accuracy, % of span*	
		Version 00	Version 0T
$P_N = 1.5$ kPa	$P_N/P_{set} \leq 2$	$\pm 0.1$	–
	$2 < P_N/P_{set} \leq 10$	$\pm[0.02 \cdot (P_N/P_{set}) + 0.06]$	–
$7.5$ kPa $\leq P_N \leq 60$ MPa	$P_N/P_{set} \leq 10$	$\pm 0.075$	$\pm[0.02 \cdot (P_N/P_{set}) + 0.08]$
	$10 < P_N/P_{set} \leq 40$	$\pm[0.00375 \cdot (P_N/P_{set}) + 0.0375]$	–
	$40 < P_N/P_{set} \leq 100$	$\pm[0.00465 \cdot (P_N/P_{set}) + 0.0015]$	–

Pressure ranges	Turndown	Temperature effect, % of span / 10 °C		Long Term Stability	
		Version 00	Version 0T	Version 00	Version 0T
$P_N = 1.5$ kPa	$P_N/P_{set} \leq 2$	$\pm[0.075 \cdot (P_N/P_{set}) + 0.025]$	–	$\pm 0.2\%$ of span / year	
	$2 < P_N/P_{set} \leq 10$	$\pm[0.050 \cdot (P_N/P_{set}) + 0.075]$	–		
$P_N = 7.5$ kPa	$P_N/P_{set} \leq 5$	$\pm[0.040 \cdot (P_N/P_{set}) + 0.025]$	–		
	$5 < P_N/P_{set} \leq 40$	$\pm[0.030 \cdot (P_N/P_{set}) + 0.075]$	–		
$37$ kPa $\leq P_N \leq 60$ MPa	$P_N/P_{set} \leq 5$	$\pm[0.010 \cdot (P_N/P_{set}) + 0.030]$	$[0.02 \cdot (P_N/P_{set})]$	$\pm 0.15\%$ of span / 5 year	$\pm 0.1\%$ of span / year
	$5 < P_N/P_{set} \leq 100$	$\pm[0.012 \cdot (P_N/P_{set}) + 0.023]$	$[0.02 \cdot (P_N/P_{set})]$		

\*\* – Accuracy includes non-linearity, hysteresis and non-repeatability.

Compensated temperature range	-20...+80 °C; -40...+60 °C (optional)
Power supply effect (Nominal power supply: 24 V $\pm 10\%$ )	$\leq \pm 0.05\%$ of span / 10 V
Load resistance effect	$\leq \pm 0.05\%$ of span / k $\Omega$
Response time (10...90%)	< 200 ms

## OPERATING CONDITIONS

Medium temperature	-50...+105 °C (Version 00) or -50...+125 °C (Version 0T)					
Ambient temperature	-50...+85 °C (refer to the temperature class limits for Ex versions)					
Storage temperature	-40...+85 °C					
Approvals	1Ex d IIC T6...T4 Gb X, 1Ex d ia IIC T6...T4 Gb X			0Ex ia IIC T6...T4 Ga X		
Temperature class	T4	T5	T6	T4	T5	T6
Ambient temperature	-50...+85 °C	-50...+70 °C	-50...+60 °C	-50...+80 °C	-50...+60 °C	-50...+50 °C
Vibration resistance	10 - 60 Hz, 0.21 mm peak to peak displacement / 60 - 2000 Hz, 3g					
Shock resistance	100 g / 11 ms					
Sensor service life	> 100 × 10 <sup>6</sup> cycles					

## MECHANICAL SPECIFICATIONS

Housing material	standard - aluminum alloy, optional - stainless steel 316L (1.4404)
Pressure port (fitting) material	stainless steel 316L (1.4404)
Seal (for adapters with DIN 3852)	EPDM (-50...+125 °C); FKM (-25...+125 °C); NBR (-25...+100 °C)
Diaphragm	stainless steel 316L (1.4435)
Mounting kit, Mounting bracket	carbon steel, stainless steel
Display protective cover	polycarbonate
Wetted parts	diaphragm, pressure port, seal
Process connections	Version 00 - 1/2" NPT internal. - Standard, other configurations are provided by an adapter, Version 0T - Can be agreed upon when ordering
Electrical connections	Cable Gland configuration (housing opening/thread): 1/2" NPT or M20×1.5. Electrical connection configurations are presented in Appendix A**
Ingress protection	IP68
Dimensions, mm, max	Depends on the current configuration
Weight, kg, max	3,5
Design	General industry; Intrinsically safe 0Ex ia IIC T6...T4 Ga X; Flameproof enclosure 1Ex d IIC T6...T4 Gb X, 1Ex d ia IIC T6...T4 Gb X. The design allows for local configuration using a magnetic tool or configuration buttons in a hazardous area.

\*\* – The number of possible electrical connection configurations is not limited to the list presented in Appendix A; the required configuration can be agreed upon at the time of ordering.

## DIGITAL DISPLAY (optional)

Display	Value
Display digits	-1999...+9999
Display accuracy	± 0.1 % of span ± 1 digit

## ELECTRICAL SPECIFICATIONS

Output signal	Power supply	Load resistance	Power consumption
4...20 mA / HART®	9...44 V (DC)	$\leq [(U_S - U_{S\_Min}) / 0.02 \text{ A}] \Omega^{***}$	$\leq 21 \text{ mA}$
<b>Minimum value of the supply voltage</b>		<b>Without HART®, U<sub>S_Min</sub></b>	<b>With HART®, U<sub>S_Min_HART</sub></b>
With backlight off		9 V	14 V
With backlight on		12 V	17 V

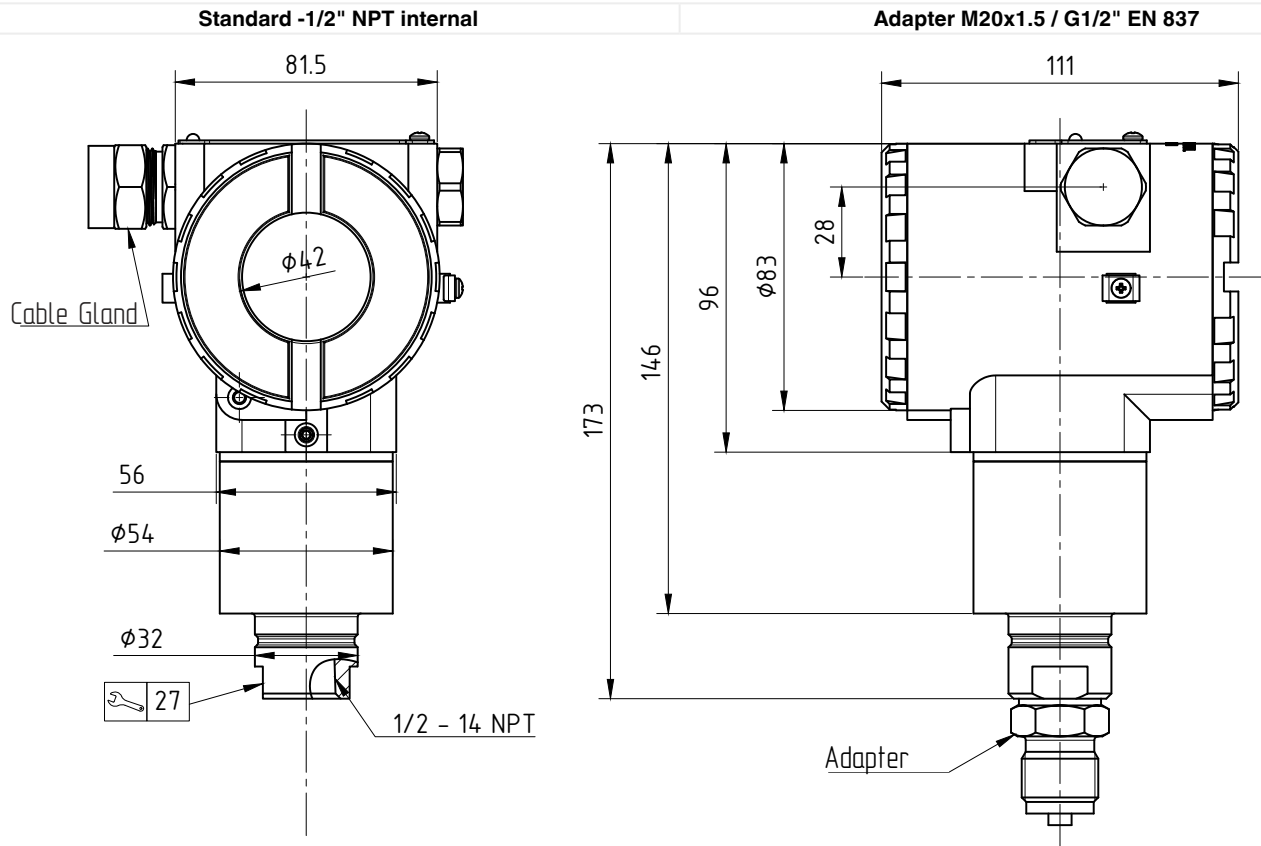
\*\*\* – Maximum load resistance value depends on the supply voltage and the minimum supply voltage.  
For the sensor to operate using the HART® protocol, the load resistance must be at least 250 Ohm.  
HART® is a registered trademark of the HART Communication Foundation.

### Safe values for intrinsically safe design 0Ex ia IIC T6...T4 Ga X:

Parameter	2-wire
Maximum input voltage, U <sub>i</sub>	28 V
Maximum input current, I <sub>i</sub>	93 mA
Maximum input power, P <sub>i</sub>	660 mW
Maximum internal inductance, L <sub>i</sub>	5 μH
Maximum internal capacitance, C <sub>i</sub>	10 nF

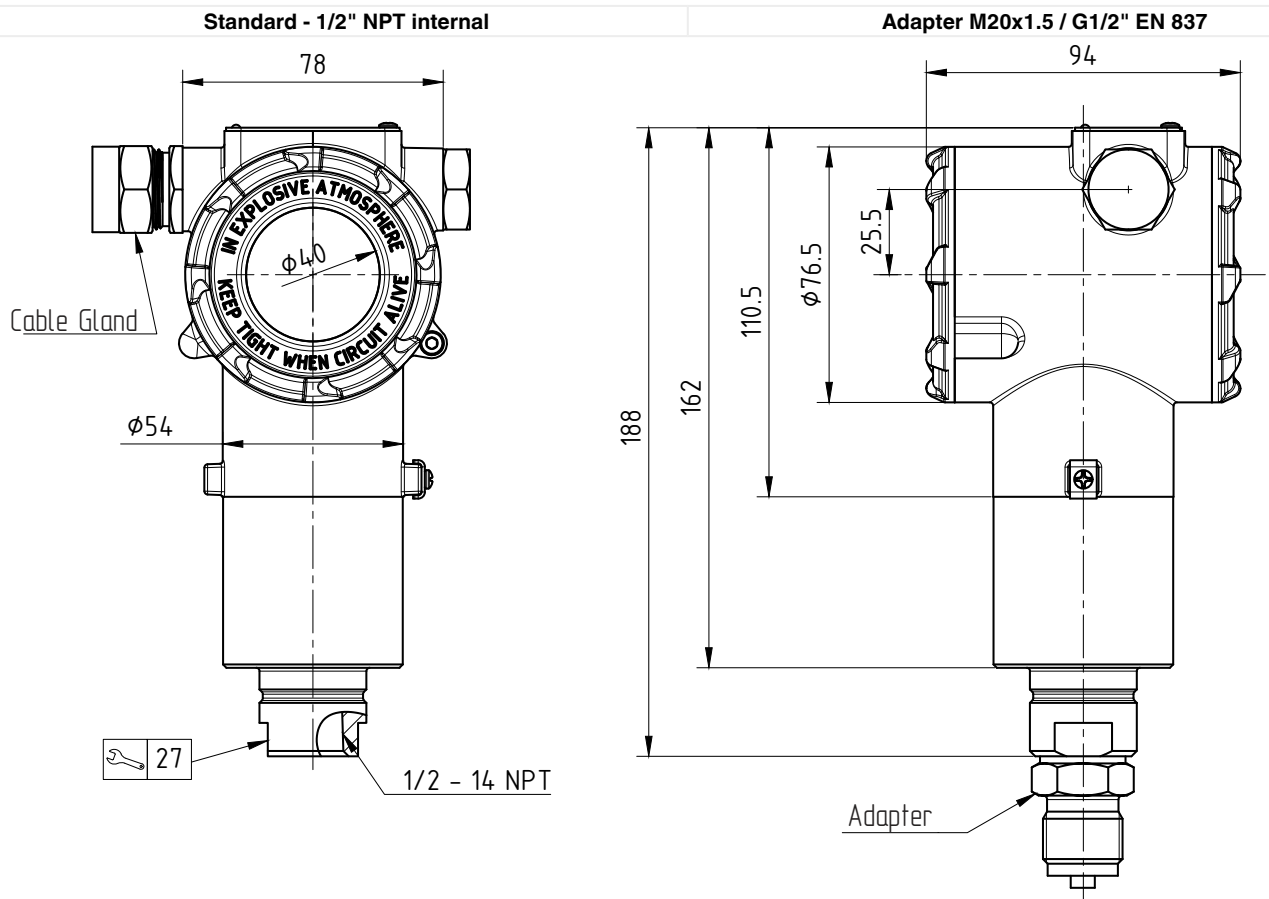
## DIMENSIONS (mm) ALUMINUM ALLOY HOUSING

AMZ 5455 Version 00



## DIMENSIONS (mm) STAINLESS STEEL HOUSING

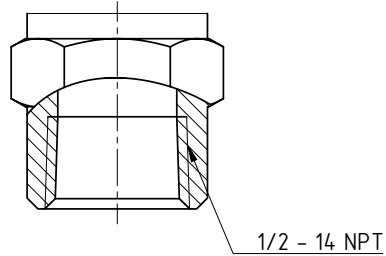
AMZ 5455 version 00-SS



## MECHANICAL CONNECTIONS FOR AMZ 5455, VERSION 00, DIMENSIONS (mm)

Standard mechanical connection

1/2" NPT; code 2

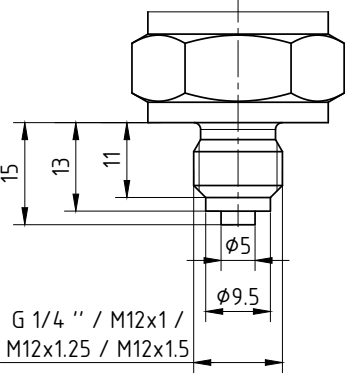
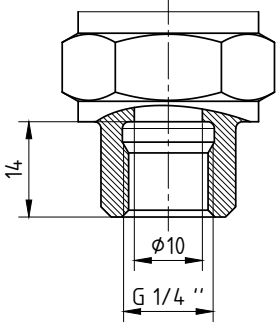
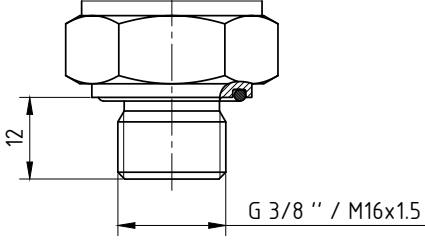
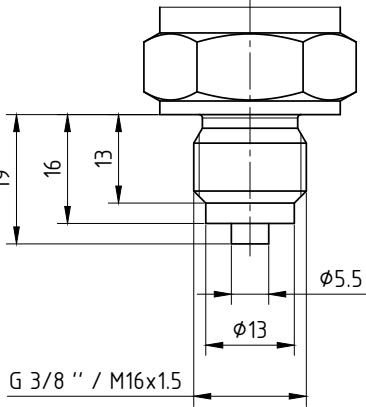
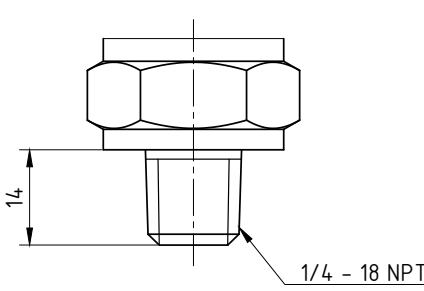
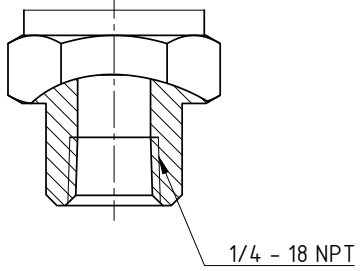


### Adapter Configurations

<p>1/2" NPT; code1</p>	<p>M20x1.5 EN 837; code 5 G1/2" EN 837; code 7</p>	<p>M20x1.5 DIN 3852; code 6 G1/2" DIN 3852; code 8</p>
<p>M14x1.5 DIN 3852; code 140</p>	<p>M20x1.5 DIN 3852 open port; code 206 G1/2" DIN 3852 open port; code 726</p>	<p>G1/4" DIN 3852; code 740 M12x1 DIN 3852; code 120 M12x1.25 DIN 3852; code 127 M12x1.5 DIN 3852; code 122</p>

## MECHANICAL CONNECTIONS FOR AMZ 5455, VERSION 00, DIMENSIONS (mm)

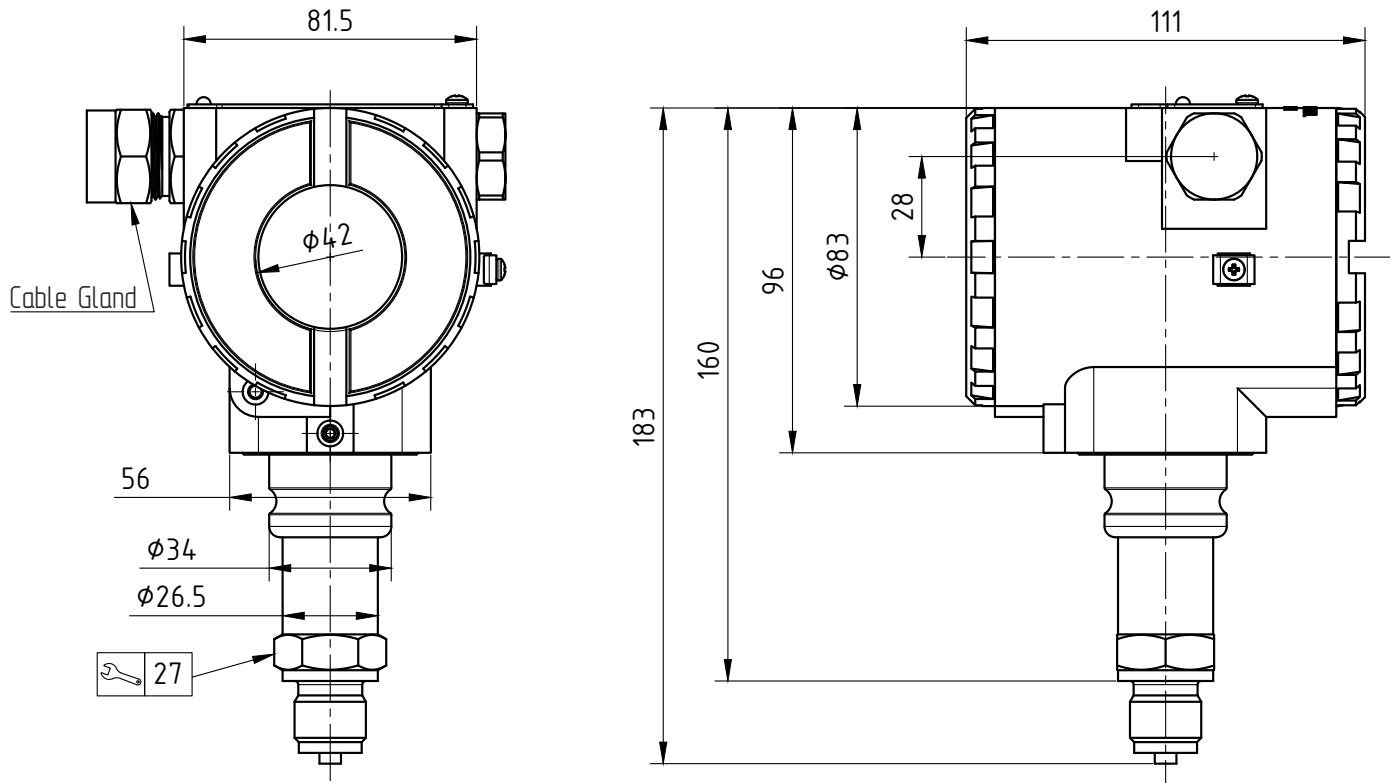
### Adapter Configurations

<p>G1/4" EN 837; code 741  M12x1 EN 837; code 121  M12x1.25 EN 837; code 128  M12x1.5 EN 837; code 123</p>	<p>G1/4" internal thread,  through bore 10 mm; code 742</p>	<p>G3/8" DIN 3852; code 790  M16x1.5 DIN 3852; code 160</p>
		
<p>G3/8" EN 837; code 791  M16x1.5 EN 837; code 61</p>	<p>1/4" NPT; code 840</p>	<p>1/4" NPT internal; code 841</p>
		

## DIMENSIONS (mm) ALUMINUM ALLOY HOUSING

### AMZ 5455 Version 0T

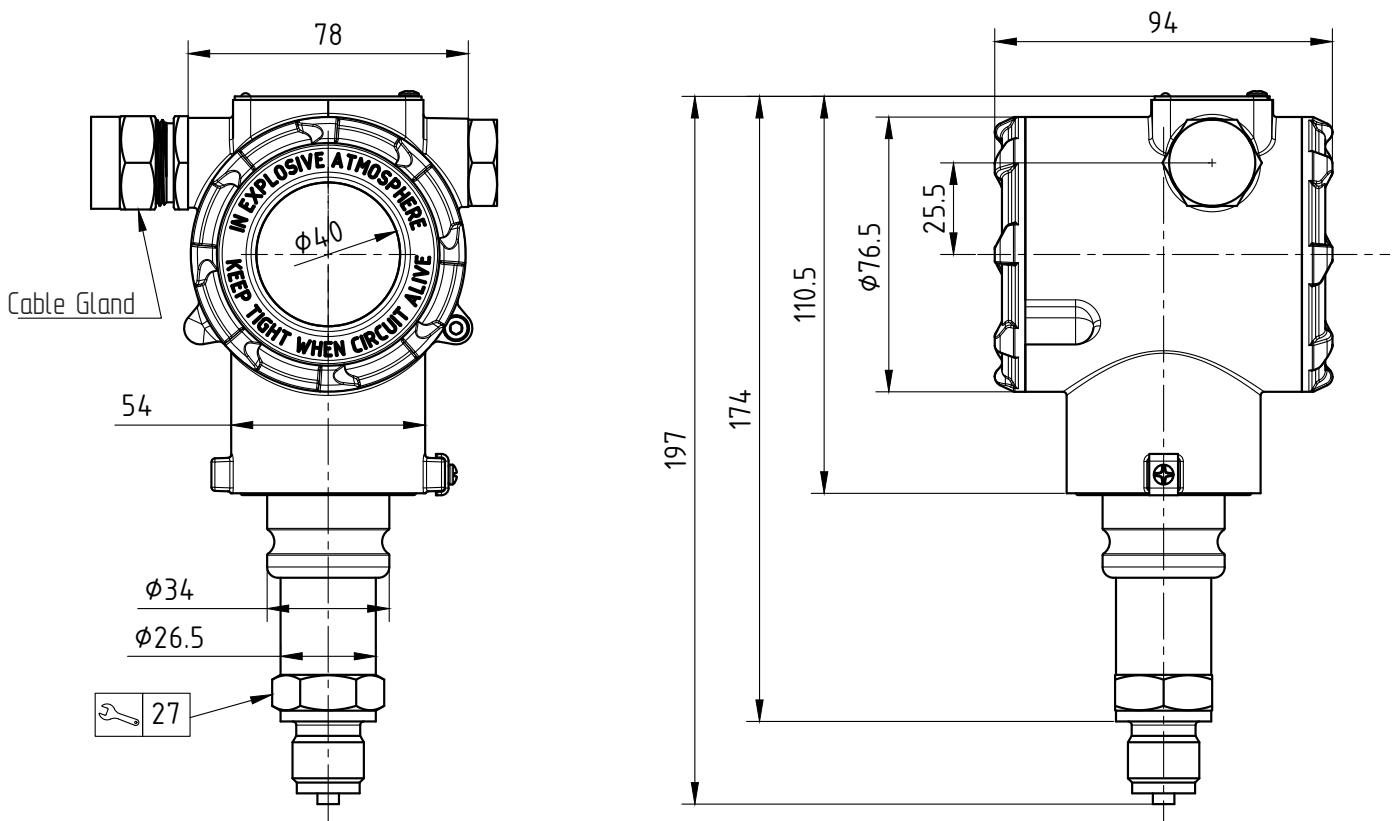
With pressure port G1/2", M20x1.5 EN 837



## DIMENSIONS (mm) STAINLESS STEEL HOUSING

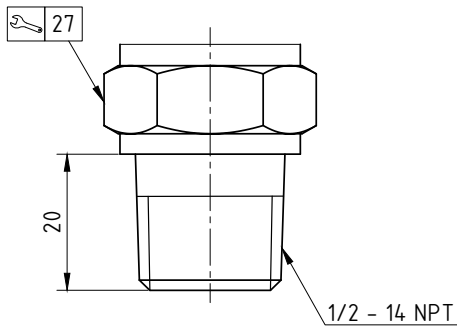
### AMZ 5455 Version 0T-SS

With pressure port G1/2", M20x1.5 EN 837

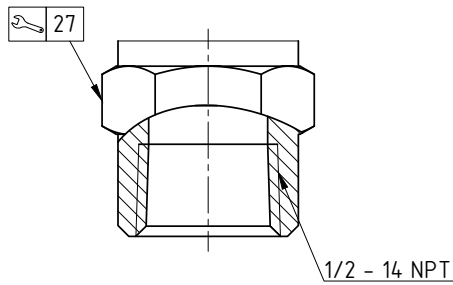


## MECHANICAL CONNECTIONS FOR AMZ 5455 VERSION 0T, DIMENSIONS (mm)

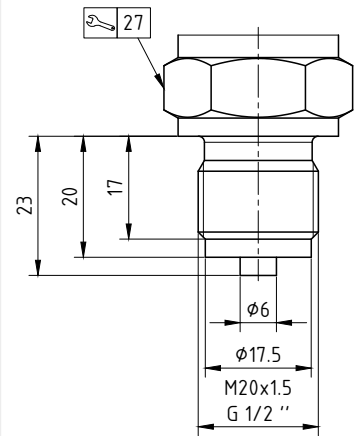
1/2" NPT; code 1



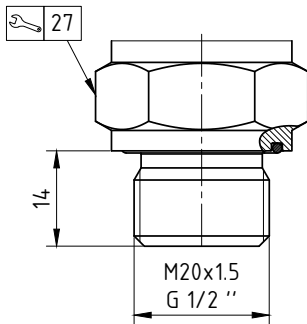
1/2" - 14 NPT internal; code 2



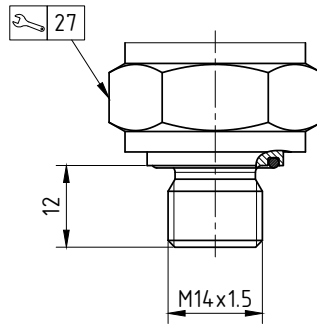
M20x1.5 EN 837; code 5  
G1/2" EN 837; code 7



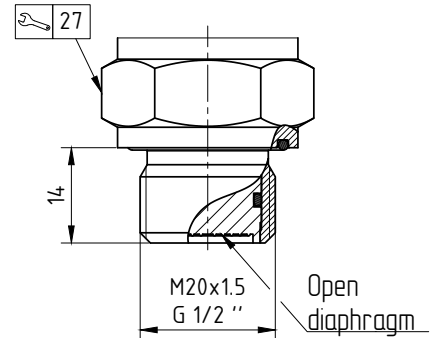
M20x1.5 DIN 3852; code 6  
G1/2" DIN 3852; code 8



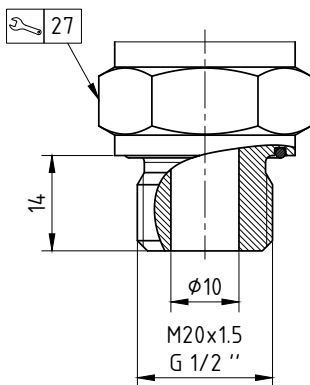
M14x1.5 DIN 3852; code 140



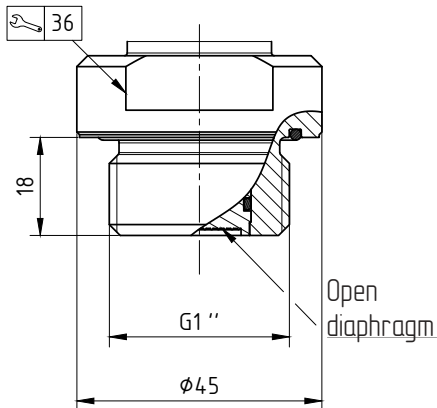
M20x1.5 DIN 3852  
open diaphragm; code 205  
G1/2" DIN 3852  
open diaphragm; code 725



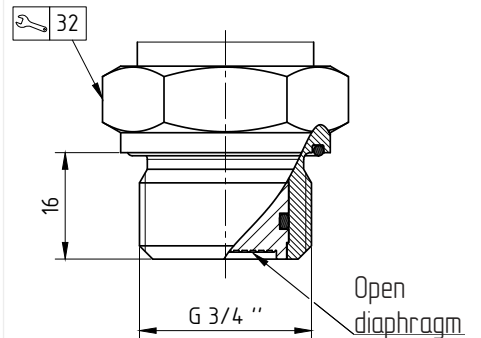
M20x1.5 DIN 3852 open diaphragm; code 206  
G1/2" DIN 3852 open diaphragm; code 726



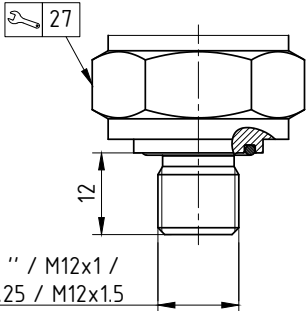
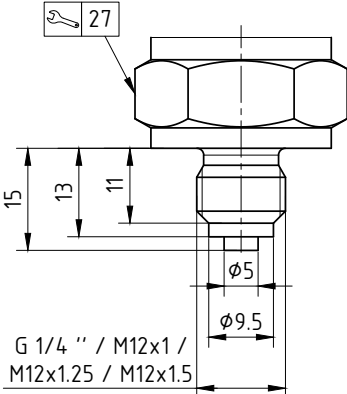
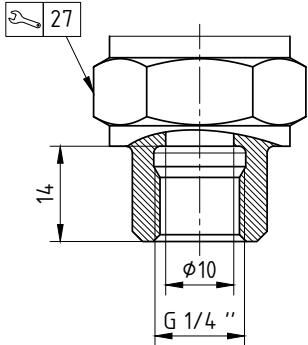
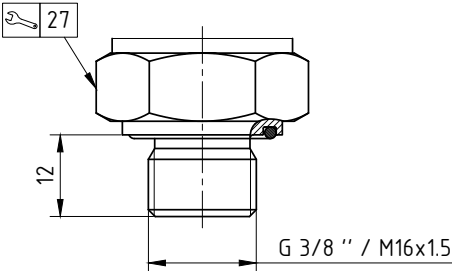
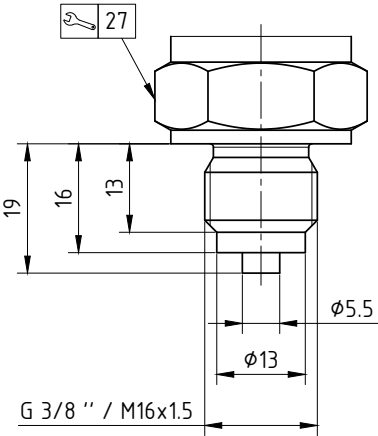
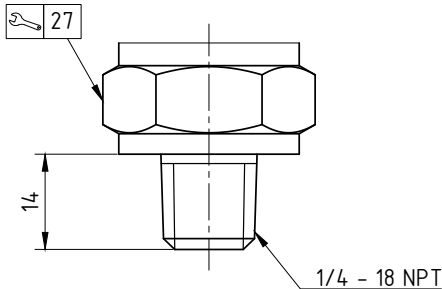
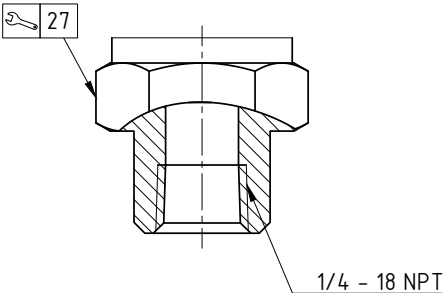
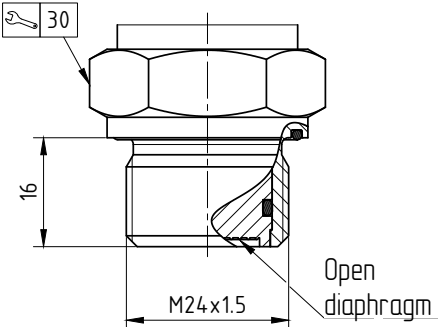
G1" DIN 3852  
open diaphragm; code 705



G3/4" DIN 3852  
open diaphragm; code 735



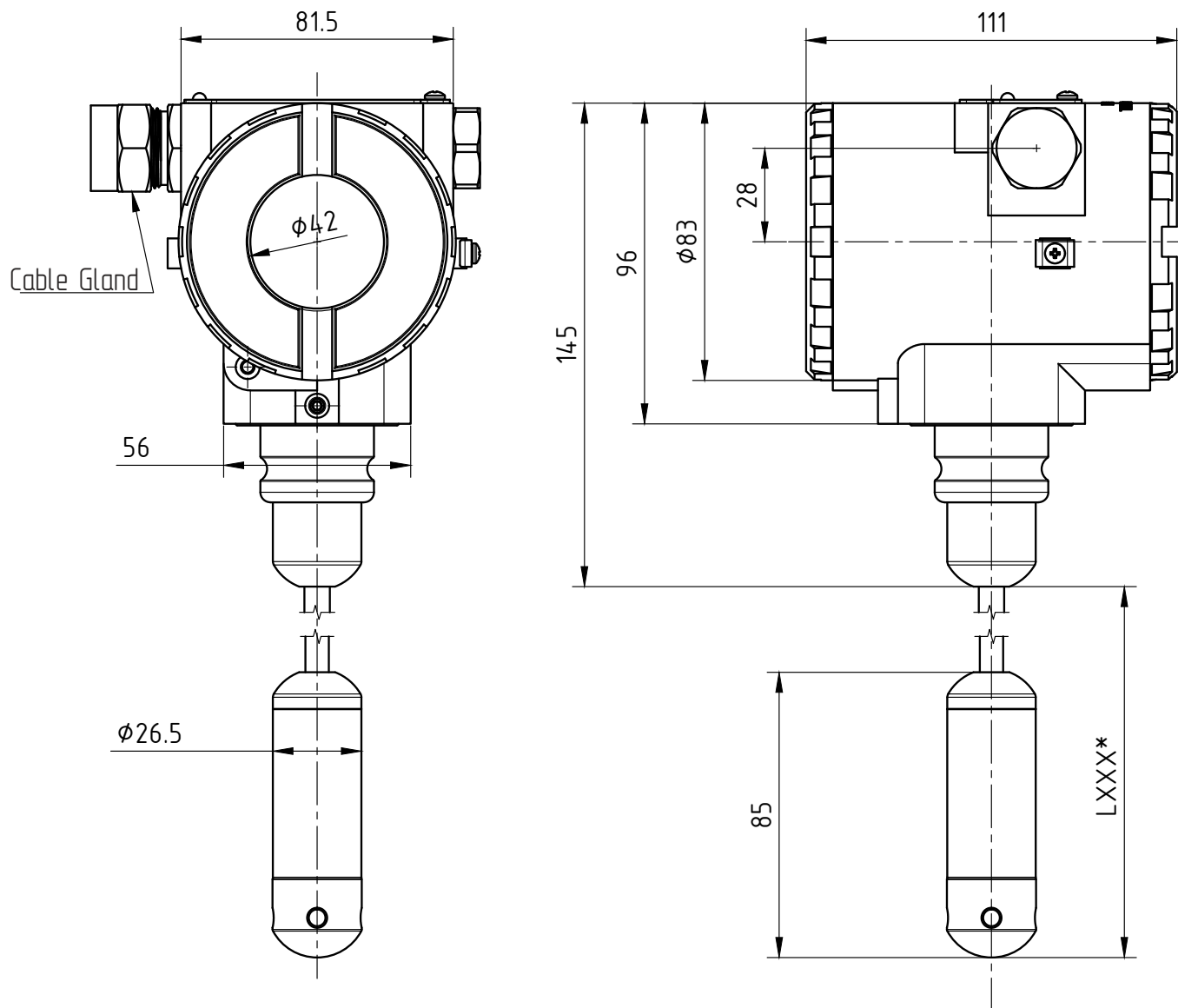
## MECHANICAL CONNECTIONS FOR AMZ 5455 VERSION 0T, DIMENSIONS (mm)

<p>G1/4" DIN 3852; code 740  M12x1 DIN 3852; code 120  M12x1.25 DIN 3852; code 127  M12x1.5 DIN 3852; code 122</p>	<p>G1/4" EN 837; code 741  M12x1 EN 837; code 121  M12x1.25 EN 837; code 128  M12x1.5 EN 837; code 123</p>	<p>G1/4" internal thread,  10 mm through bore; code 742</p>
 <p>G 1/4 " / M12x1 /  M12x1.25 / M12x1.5</p>	 <p>G 1/4 " / M12x1 /  M12x1.25 / M12x1.5</p>	 <p>G 1/4 "</p>
<p>G3/8" DIN 3852; code 790  M16x1.5 DIN 3852; code 160</p>	<p>G3/8" EN 837; code 791  M16x1.5 EN 837; code 161</p>	<p>1/4" NPT; code 840</p>
 <p>G 3/8 " / M16x1.5</p>	 <p>G 3/8 " / M16x1.5</p>	 <p>1/4 - 18 NPT</p>
<p>1/4" NPT internal; code 841</p>	<p>M24x1.5 DIN 3852 open diaphragm;  code 245</p>	
 <p>1/4 - 18 NPT</p>	 <p>Open diaphragm</p>	

## DIMENSIONS (mm) ALUMINUM ALLOY HOUSING

AMZ 5455 0T

Version with hydrostatic submersible pressure sensor

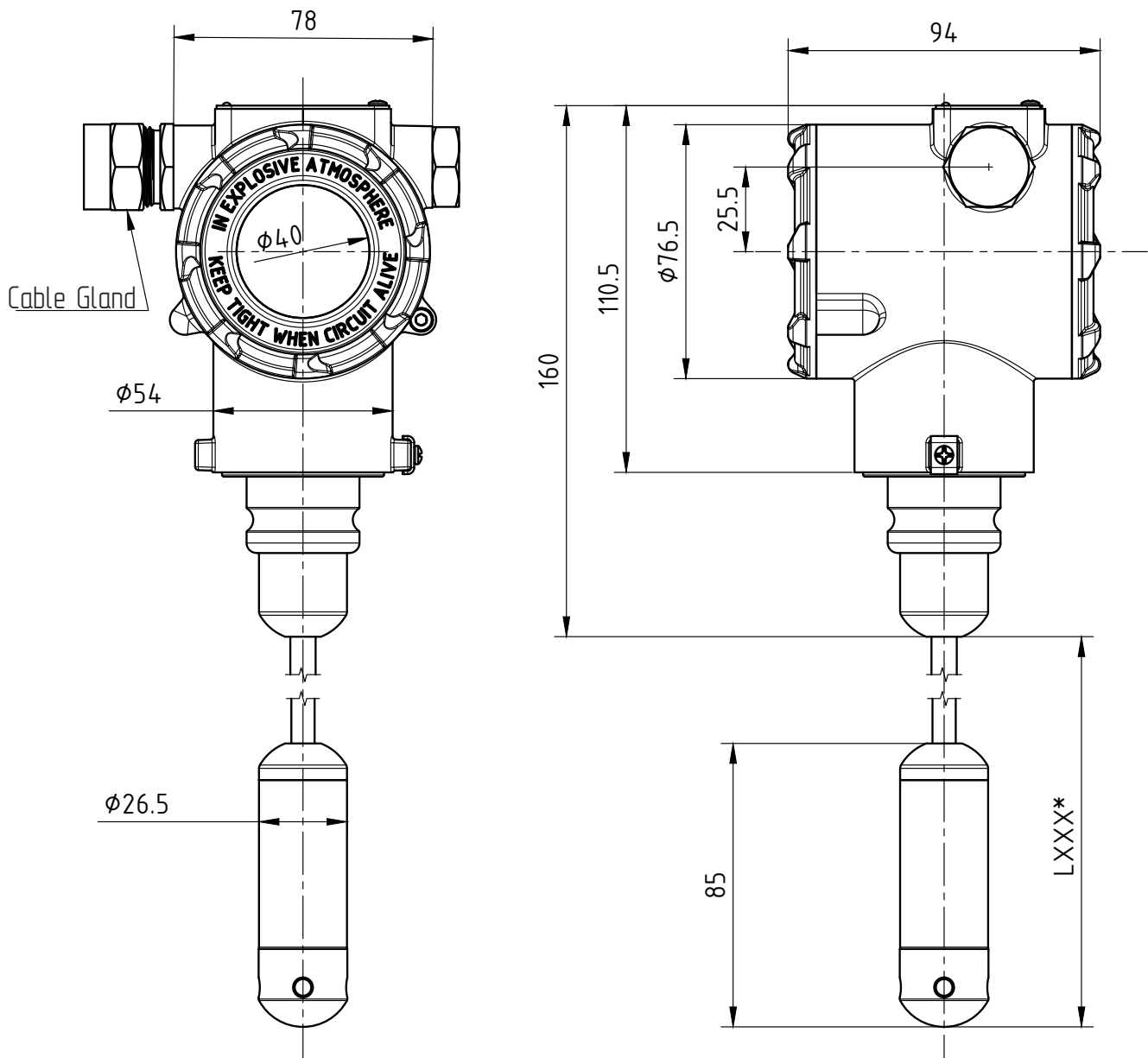


\* - The length and material of the cable jacket are agreed upon when ordering and are included in its code.

## DIMENSIONS (mm) STAINLESS STEEL HOUSING

AMZ 5455 OT-SS

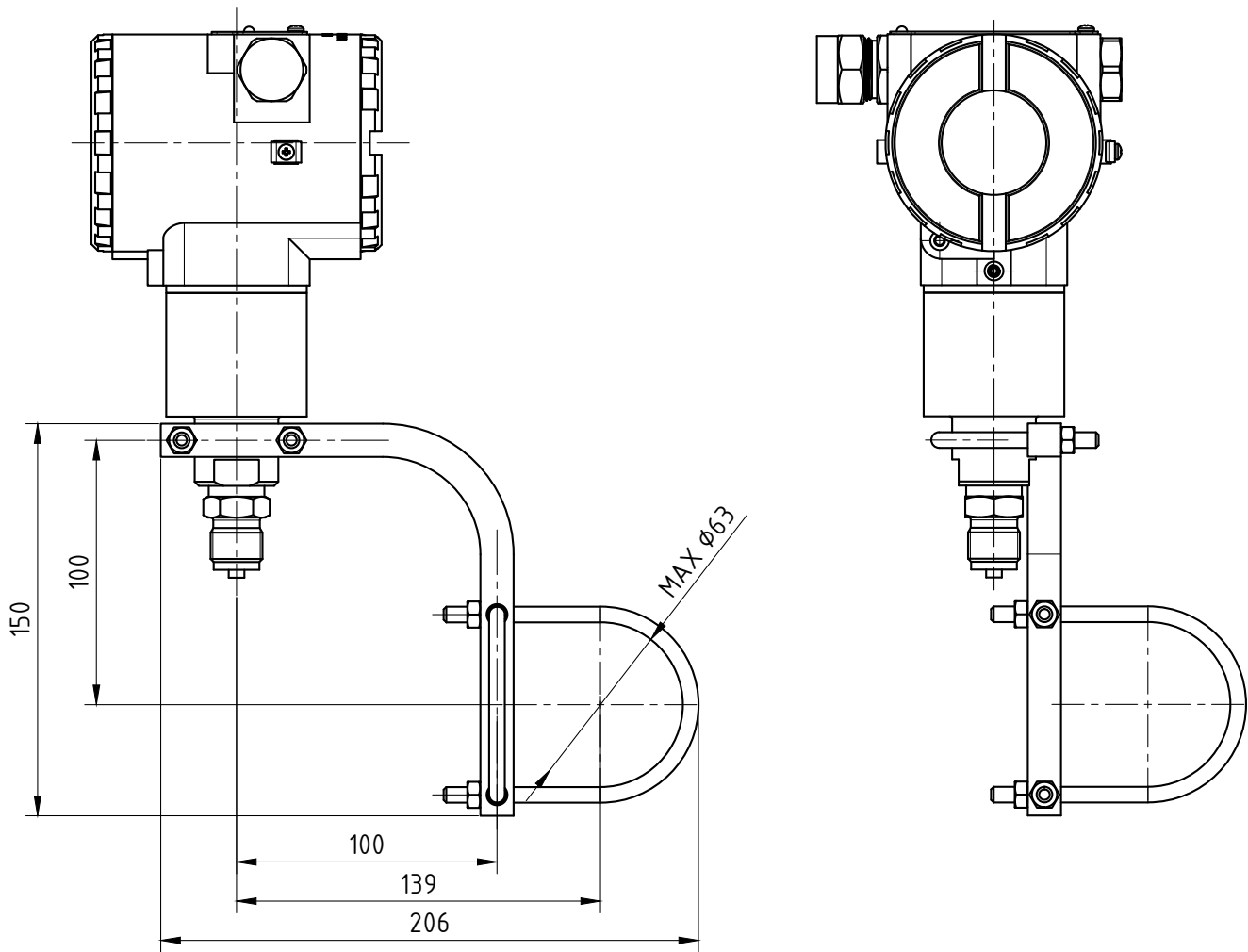
Version with hydrostatic submersible pressure sensor



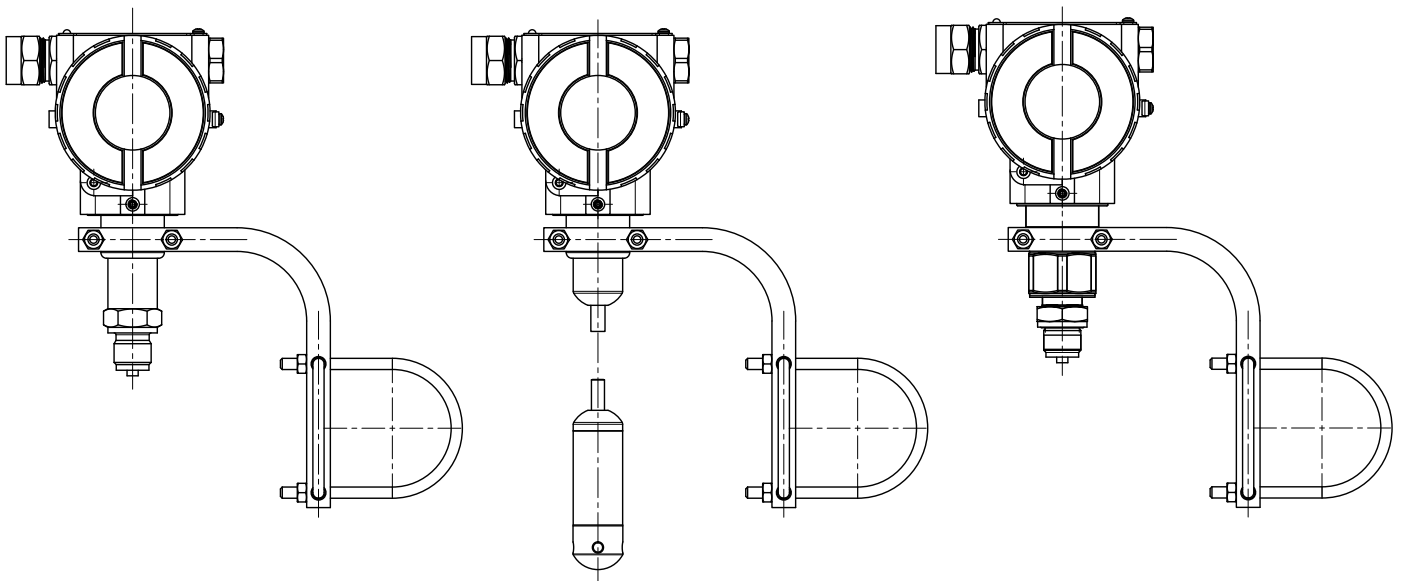
\* - The length and material of the cable jacket are agreed upon when ordering and are included in its code.

## DIMENSIONS (mm) ALUMINUM ALLOY HOUSING

Pipe mounting of AMZ 5455 on bracket, code 1

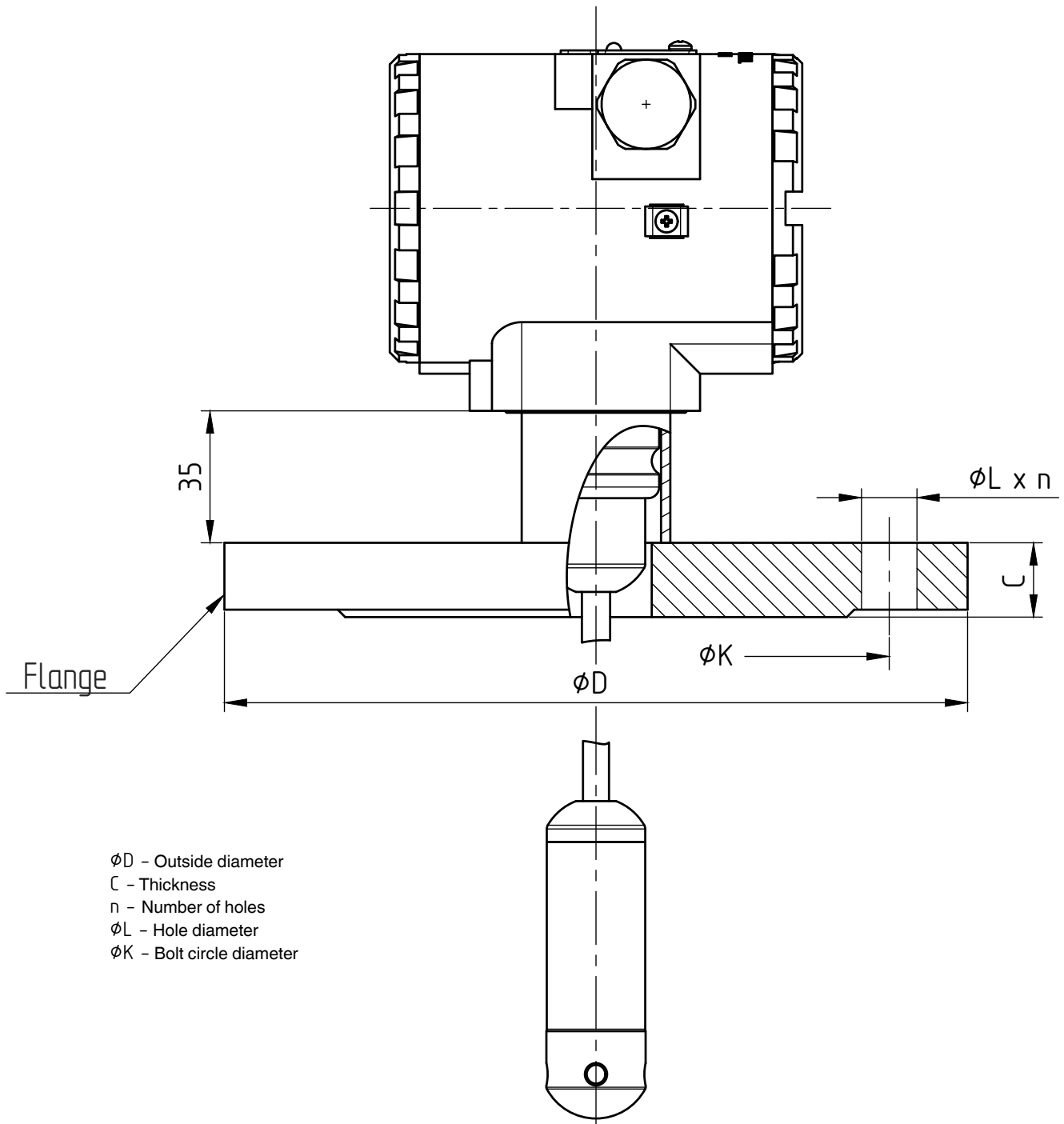


AMZ 5455 pipe mounting with bracket – various versions



## DIMENSIONS (mm) ALUMINUM ALLOY HOUSING

Flange-mounted hydrostatic submersible pressure sensor version



- ØD - Outside diameter
- C - Thickness
- n - Number of holes
- ØL - Hole diameter
- ØK - Bolt circle diameter

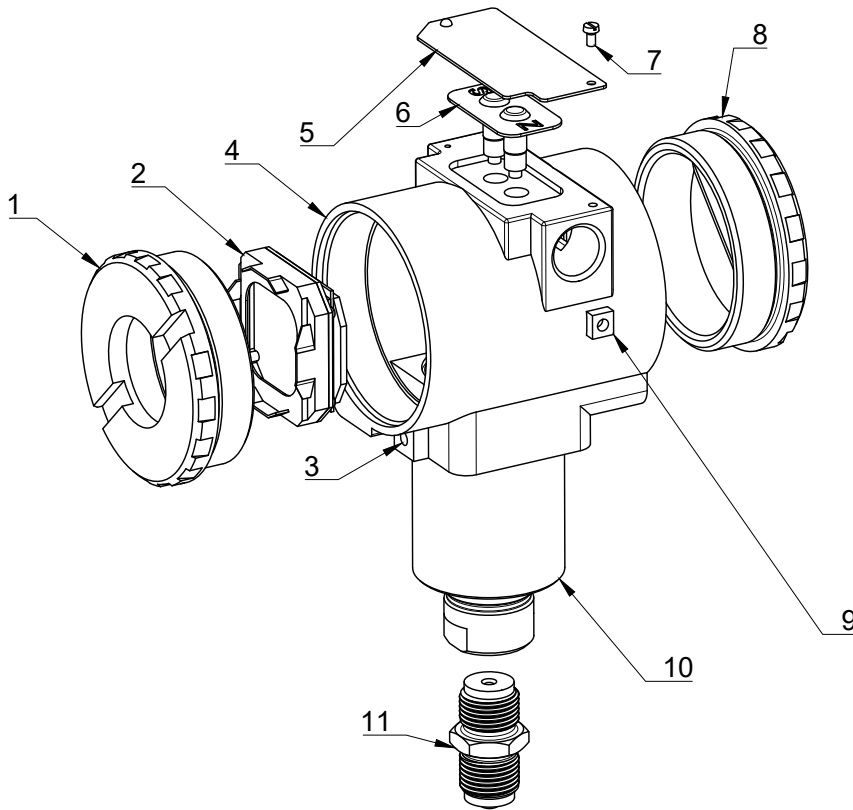
DN	PN	ØD	ØK	ØL	n	C	Bolts	Code X
DN 50	PN10-40	165	125	18	4	18	4xM16	Code 5
DN 80	PN10-16	200	160	18	8	20	8xM16	Code 6
DN 100	PN10-16	220	180	18	8	20	8xM16	Code 4

**Other mounting flange sizes are available upon request.**

Cable jacket material and length are agreed upon order and included in the product code.

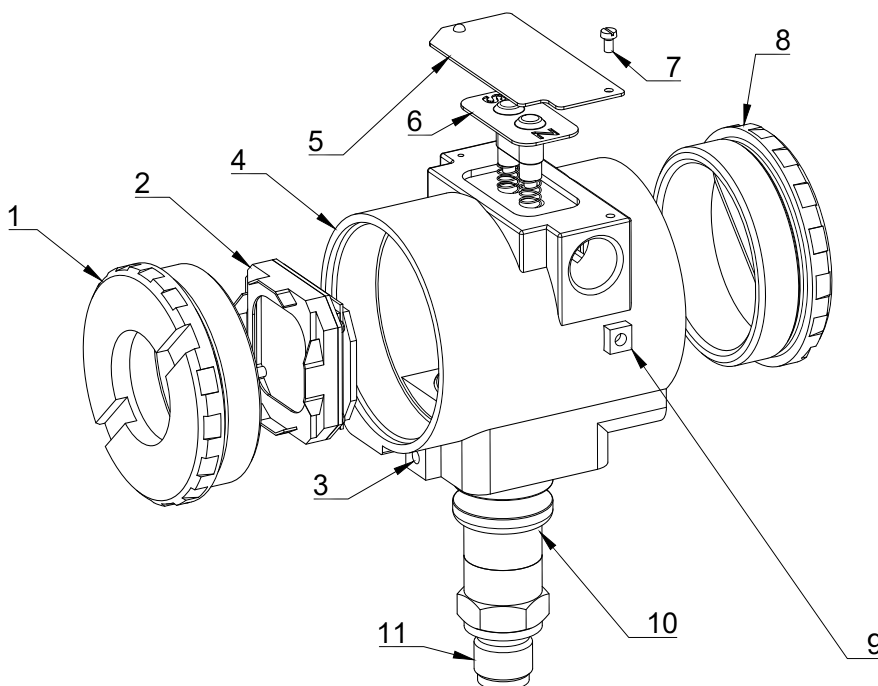
## COMPONENTS

### AMZ 5455 Version 00



- 1 - Protective display cover
- 2 - Display (turnable in 90°)
- 3 - Locking screw (unscrew to turn the housing)
- 4 - Housing
- 5 - Local adjustment button cover
- 6 - Setting buttons
- 7 - Cover screw
- 8 - Terminal board cover
- 9 - Threaded hole for housing ground screw
- 10 - Sensor housing
- 11 - Adapter

### AMZ 5455 Version 0T



- 1 - Protective display cover
- 2 - Display (turnable in 90°)
- 3 - Locking screw (unscrew to turn the housing)
- 4 - Housing
- 5 - Local adjustment button cover
- 6 - Setting buttons
- 7 - Cover screw
- 8 - Terminal board cover
- 9 - Threaded hole for housing ground screw
- 10 - Sensor housing
- 11 - Threaded process connection

## ORDERING CODE

AMZ 5455		-X	-XXXX	-XX	-X	-X	-X	-X	-XXXX	-X	-XXXXX	-X	-X	-XX
<b>PRESSURE TYPE</b>														
Gauge pressure	G													
Absolute pressure	A													
<b>UPPER RANGE LIMIT (URL)</b>														
Gauge pressure	Absolute pressure													
1.5 kPa	-	1500												
7.5 kPa	-	7500												
37 kPa	37 kPa	3701												
187 kPa	187 kPa	1872												
690 kPa	690 kPa	6902												
2 MPa	2 MPa	2003												
7 MPa	7 MPa	7003												
20 MPa	20 MPa	2004												
40 MPa	40 MPa	4004												
60 MPa	60 MPa	6004												
Others	Others	XXXX												
<b>DIAPHRAGM MATERIAL / FILL FLUID</b>														
Stainless steel 316L / Silicone oil	11													
<b>PROCESS CONNECTION MATERIAL</b>														
Stainless steel 316L	S													
<b>SEALS</b>														
No seal (standard)	W													
FKM (fluororubber), DIN 3852	F													
NBR (nitrile butadiene rubber), DIN 3852	N													
PTFE (polytetrafluoroethylene), DIN 3852	P													
EPDM (ethylene propylene rubber), DIN 3852	E													
<b>ACCURACY</b>														
0.075% (7.5 kPa ≤ P ≤ 7 MPa, Version 00)	Z													
0.1% (Version 0T, Version 00 with URL = 1.5 kPa)	A													
0.15%	G													
<b>DISPLAY</b>														
None	0													
Yes	1													
Yes / With buttons	2													
<b>ELECTRICAL CONNECTION</b>														
Appendix A - Cable connections*														
<b>OUTPUT SIGNAL</b>														
4...20 mA / HART®	H													
4...20 mA / HART® / 0Ex ia IIC T6...T4 Ga X	I													
4...20 mA / HART® / 1Ex d ia IIC T6...T4 Gb X	W													
4...20 mA / HART® / 1Ex d IIC T6...T4 Gb X	P													
<b>MECHANICAL CONNECTION</b>														
1/2" NPT, external	1													
1/2" - 14 NPT, internal (standard)	2													
M20x1.5 EN 837, external	5													
M20x1.5 DIN 3852, external	6													
G1/2" EN 837, external	7													
G1/2" DIN 3852, external	8													
Threaded with welding nipple: M20x1.5 EN 837, nipple + union nut included	51													
Threaded with welding nipple: M20x1.5 EN 837, 14 mm ext. nipple + union nut	52													
Threaded with welding nipple: M20x1.5 EN 837, 12 mm ext. nipple + union nut	53													

\* – The number of possible electrical connection configurations is not limited to the list presented in Appendix A; the required configuration can be agreed upon at the time of ordering.

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## ORDERING CODE (CONTINUED)

AMZ 5455 -X -XXXX -XX -X -X -X -X -XXXX -X -XXXXX -X -X -XX

### MECHANICAL CONNECTION (CONTINUED)

M12×1 DIN 3852, external	120		
M12×1 EN 837, external	121		
M12×1.5 DIN 3852, external	122		
M12×1.5 EN 837, external	123		
M12×1.25 DIN 3852, external	127		
M12×1.25 EN 837, external	128		
M14×1.5 DIN 3852, external	140		
M16×1.5 DIN 3852, external	160		
M16×1.5 EN 837, external	161		
M20×1.5 EN 837, with built-in pressure surge damper	202		
M20×1.5, external, open diaphragm	205		
M20×1.5, external, open port	206		
M24×1.5 DIN 3852, external, open diaphragm	245		
G1" DIN 3852, external, open diaphragm	705		
M20×1.5, external, with cooling radiator	723		
G1/2", internal	724		
G1/2" DIN 3852, external, open diaphragm	725		
G1/2" DIN 3852, external, open port	726		
G3/4" DIN, external, open diaphragm	735		
G1/4" DIN 3852, external	740		
G1/4" EN 837, external	741		
G1/4", internal, 10 mm through hole	742		
G3/8" DIN 3852, external	790		
G3/8" EN 837, external	791		
1/4" NPT, external	840		
1/4" NPT, internal	841		
Submersible sensor with PVC cable jacket	LXXXXP*		
Submersible sensor with polyurethane cable jacket	LXXXXU*		
Submersible sensor with PTFE cable jacket	LXXXXF*		

### VALVE MANIFOLD\*\*

None	0		
Included with valve manifold	1		
Supplied assembled with valve manifold***	2		

### MOUNTING KITS

Not included	0		
Bracket for 2" (50 mm) pipe or flat panel	1		
Stainless steel bracket for 2" (50 mm) pipe or flat panel	3		
Flange DN100/PN10-16, form B, ext. Ø 40 mm	4		
Flange DN50/PN10-40, form B, ext. Ø 40 mm	5		
Flange DN80/PN10-40, form B, ext. Ø 40 mm	6		
Upon request	X		

### VERSION

0...1,5 kPa - 0...7 MPa	00		
0...37 kPa - 0...60 MPa	0T		
Oxygen Version (only FKM sealing and URL ≤ 170 bar)	DG		
Stainless steel housing 316L	SS		

Example: AMZ 5455 G-7003-11-S-W-A-1-M01-I-2-0-2-SS

\* – Example: L010P - L010P – hydrostatic version: submersible sensor, depth 10 meters, PVC cable jacket.

\*\* – Specify as a separate item when ordering.

\*\*\* – The transmitter is supplied complete with a valve assembly. A leak test is performed after installation.

## APPENDIX A

Order Code	Thread of Electrical Connection	Material	Thread of Cable Gland	For Cable, mm	Ø Outer Diameter of Armor, mm	Nominal Metal Hose Diameter, mm	Protection Class (GOST 14254)	Explosion Protection	Note
<b>Without Cable Gland</b>									
M00	Internal M20x1.5	-	-	-	-	-	-	-	With plastic plugs, without Cable Gland
M02S	Internal M20x1.5	-	-	-	-	-	-	-	With explosion-proof plugs made of stainless steel, IP66-68, without Cable Gland
N00	Internal 1/2" NPT	-	-	-	-	-	-	-	With plastic plugs, without Cable Gland
N02S	Internal 1/2" NPT	-	-	-	-	-	-	-	With explosion-proof plugs, made of stainless steel, IP66-68, without Cable Gland
<b>Cable Glands with M20x1.5 threads</b>									
M01	Internal M20x1.5	Nickel-plated brass	External M20x1.5	6-12	-	-	IP66-68	General purpose Exi, Exd	-
M03	Internal M20x1.5	Nickel-plated brass	External M20x1.5	6-12	9-17	-	IP66-68	General purpose Exi, Exd	For armored cable
M04	Internal M20x1.5	Nickel-plated brass	External M20x1.5	6-12	-	15	IP66-68	General purpose Exi, Exd	For unarmored cable with the option of metal hose connection
M05	Internal M20x1.5	Nickel-plated brass	External M20x1.5	6-14	-	20	IP66-68	General purpose Exi, Exd	For unarmored cable with the option of metal hose connection
M06	Internal M20x1.5	Nickel-plated brass	External M20x1.5	6-12	-	-	IP66-68	General purpose Exi, Exd	For unarmored cable with an adapter for metal hose with internal thread G 1/2"
M08	Internal M20x1.5	Nickel-plated brass	External M20x1.5	6-14	-	18	IP66-68	General purpose Exi, Exd	With an adapter for metal hose (RZ-TsKh-18/MRPI-18)
M10	Internal M20x1.5	Nickel-plated brass	External M20x1.5	6-14	-	15	IP66-68	General purpose Exi, Exd	-
M14	Internal M20x1.5	Nickel-plated brass	External M20x1.5	6-14	-	20	IP66-68	General purpose Exi, Exd	-
M01S	Internal M20x1.5	Stainless steel	External M20x1.5	6-12	-	-	IP66-68	General purpose Exi, Exd	-
M03S	Internal M20x1.5	Stainless steel	External M20x1.5	6-12	9-17	-	IP66-68	General purpose Exi, Exd	For armored cable

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## APPENDIX A (CONTINUED)

Order Code	Thread of Electrical Connection	Material	Thread of Cable Gland	For Cable, mm	Ø Outer Diameter of Armor, mm	Nominal Metal Hose Diameter, mm	Protection Class (GOST 14254)	Explosion Protection	Note
M04S	Internal M20x1.5	Stainless steel	External M20x1.5	6-12	-	15	IP66-68	General purpose Exi, Exd	For unarmored cable with the option of metal hose connection
M05S	Internal M20x1.5	Stainless steel	External M20x1.5	6-14	-	20	IP66-68	General purpose Exi, Exd	For unarmored cable with the option of metal hose connection
M06S	Internal M20x1.5	Stainless steel	External M20x1.5	6-12	-	-	IP66-68	General purpose Exi, Exd	For unarmored cable with an adapter for metal hose with internal thread G 1/2"
M08S	Internal M20x1.5	Stainless steel	External M20x1.5	6-14	-	18	IP66-68	General purpose Exi, Exd	With an adapter for metal hose
M10S	Internal M20x1.5	Stainless steel	external M20x1.5	6-14	-	15	IP66-68	General purpose Exi, Exd	-
M14S	Internal M20x1.5	Stainless steel	External M20x1.5	6-14	-	20	IP66-68	General purpose Exi, Exd	-
M01P	Internal M20x1.5	Polyamide	External M20x1.5	6-12	-	-	-	General purpose	-
<b>Cable Glands with 1/2" NPT threads</b>									
N01	Internal 1/2" NPT	Nickel-plated brass	external 1/2" NPT	6-12	-	-	IP66-68	General purpose Exi, Exd	-
N01P	Internal 1/2" NPT	Polyamide	External 1/2" NPT	6-12	-	-	IP66-68	General purpose	-
N03	Internal 1/2" NPT	Nickel-plated brass	External 1/2" NPT	6-12	9-17	-	IP66-68	General purpose Exi, Exd	For armored cable or for unarmored cable with the option of metal hose connection
N04	Internal 1/2" NPT	Nickel-plated brass	External 1/2" NPT	6-12	-	15	IP66-68	General purpose Exi, Exd	For unarmored cable with the option of metal hose connection
N05	Internal 1/2" NPT	Nickel-plated brass	External 1/2" NPT	6-14	-	20	IP66-68	General purpose Exi, Exd	For unarmored cable with an adapter for metal hose with internal thread G 1/2"
N06	Internal 1/2" NPT	Nickel-plated brass	External 1/2" NPT	6-12	-	-	IP66-68	General purpose Exi, Exd	-
N01S	Internal 1/2" NPT	Stainless steel	External 1/2" NPT	6-12	-	-	IP66-68	General purpose Exi, Exd	For armored cable
N03S	Internal 1/2" NPT	Stainless steel	External 1/2" NPT	6-12	9-17	-	IP66-68	General purpose Exi, Exd	For unarmored cable with the option of metal hose connection
N04S	Internal 1/2" NPT	Stainless steel	External 1/2" NPT	6-12	-	15	IP66-68	General purpose Exi, Exd	For unarmored cable with the option of metal hose connection

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## APPENDIX A (CONTINUED)

Order Code	Thread of Electrical Connection	Material	Thread of Cable Gland	For Cable, mm	Ø Outer Diameter of Armor, mm	Nominal Metal Hose Diameter, mm	Protection Class (GOST 14254)	Explosion Protection	Note
N05S	Internal 1/2" NPT	Stainless steel	External 1/2" NPT	6-14	-	20	IP66-68	General purpose Exi, Exd	for unarmored cable with the option of metal hose connection
N06S	Internal 1/2" NPT	Stainless steel	External 1/2" NPT	6-12	-	-	IP66-68	General purpose Exi, Exd	for unarmored cable with an adapter for metal hose with internal thread G 1/2"

### Other electrical connections

R	Electrical connector 2PMG14B4SH1E2B (socket 2PM14KPN4G181)
D	DIN 43650A, includes plug and socket

**Note:** Possible electrical connection configurations are not limited to the list provided in Appendix A; the required configuration can be agreed upon when placing the order.