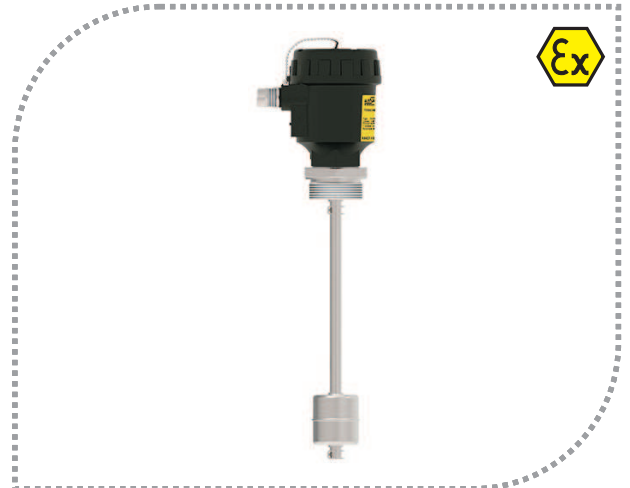


DX-ELStx level sensors are used for tank levels and for controls. In the float when the magnet magnetic area moves according to the liquid in the tube, then the reed swithes the electrical circuit on or off when it reaches the level of the sensor. Reed swithes in and out. The changes of the reed sensors with alarm or a level information can be assessable with a relay circuit or a control device. Sensitivity increases according to reed sensor lowering range. The advantages of providing the analog output in the enclosure are preferred by the users.

Application areas :

Tank level measurement and control, boiler control, store room control. Yatch water level control, unclean water level control. Hydraulic oil tank level measurement and control.



Certification

II 1/2 G Ex d IIC Tx*1 Ga/Gb For Gas
 II 1/2 D Ex (ta/tb)*3 IIC Tx*2 For Dust
 *Have a look at the temperature class chart.

DX-ELS-tx

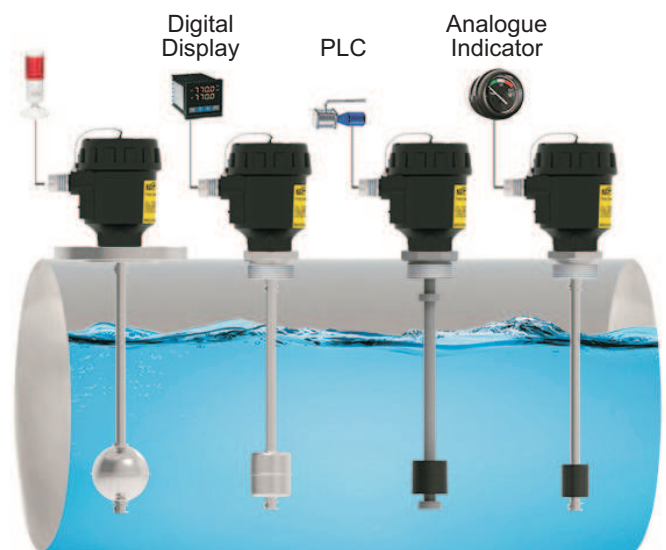
LEVEL TRANSMITTERS

DX-ELS-tx

Advantages:

- *A variety of materials according to the flow
- *Different choices of ignition
- *Quick delivery
- *Different types of technics

Example of application :



Model: 01-2019-005

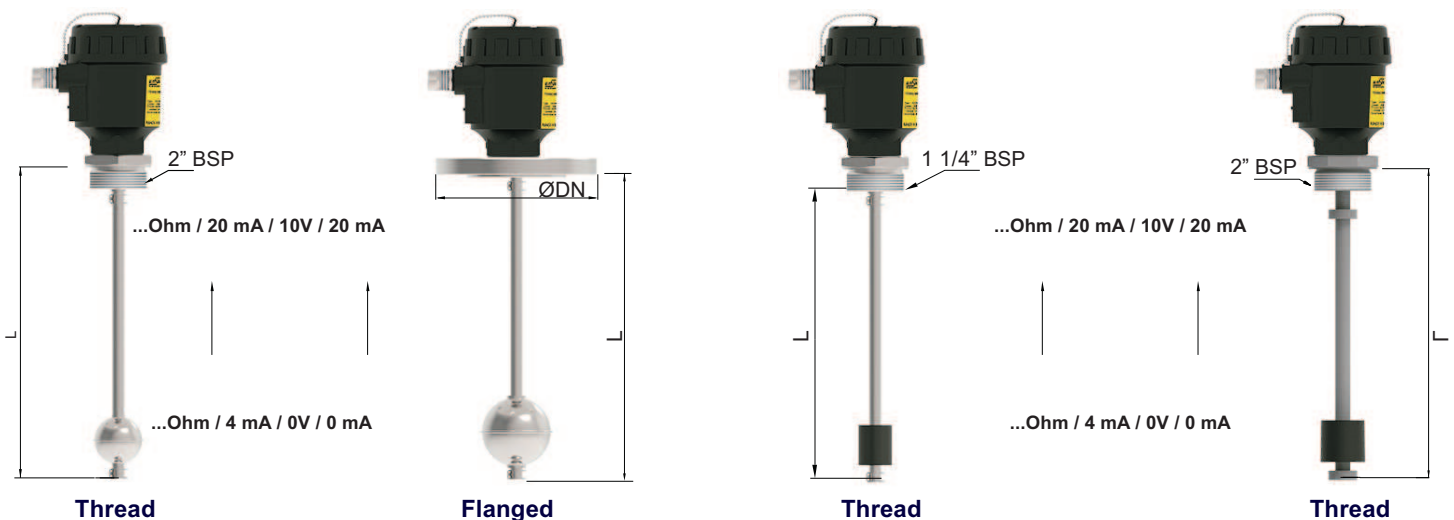


Technical Specifications :

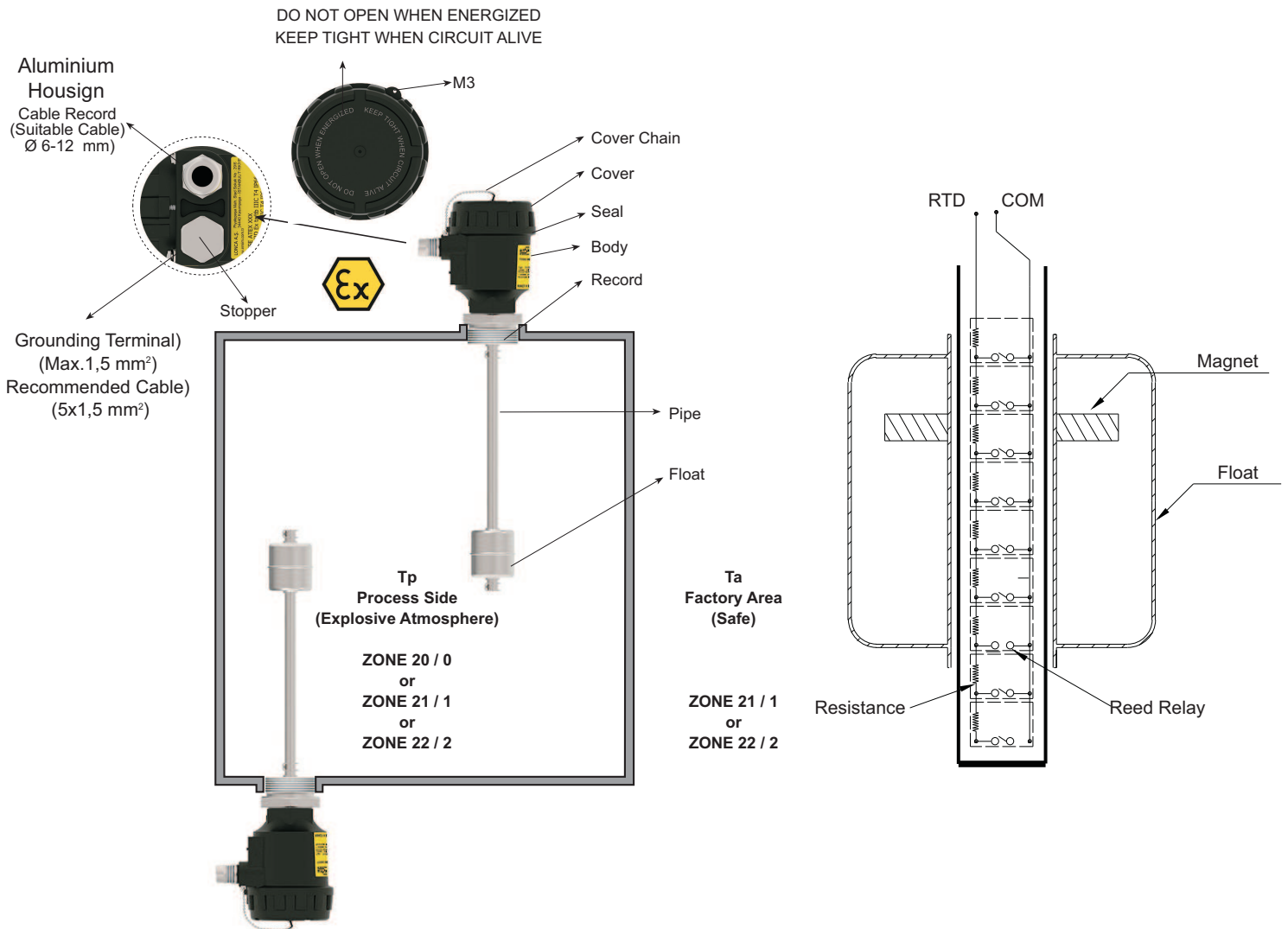
DX-ELS-tx

| | |
|------------------------------|--|
| Working Temperature (Tp) | Max. 100 °C |
| Ambient Humidity | 0-98 % Rh (Non-condensing) |
| Ambient Temperature (Ta) | (-) 20 °C ... (+) 60 °C |
| Material | 304 St.st. (Std.) Opt. 316 St.st. , Aluminum |
| Connection Housing | Aluminium Injection Molding- AISi12Fe (Std) Black (RAL 9005) |
| Float | 316 St.st. (Std.) Opt. PU , PP |
| Pipe | 304 St.st. (Std.) Opt. 316 St.St. , Brass |
| Connection | 2" BSP (Std.) Opt.Selectable from Table. |
| Float Type | S40A (Std.) , Selectable from Table. |
| Number of Float | 1 (Std.) A large number of available. |
| Stem Length | Max. 2500 mm (Thread Included) |
| Electrical Connection | Terminals |
| Cable and Plug Entry | M20 x 1,5 (Std) |
| Output | 4-20 mA Std. Two Wire Opt. 4-20mA , 0-20mA , 0-10V Three Wire, Ohm |
| Supply Voltage | 12...32 VDC |
| Protection Class | IP 66 (EN60529) |
| Certifications and Approvals | CE Declaration , EMC , LVD , ATEX |

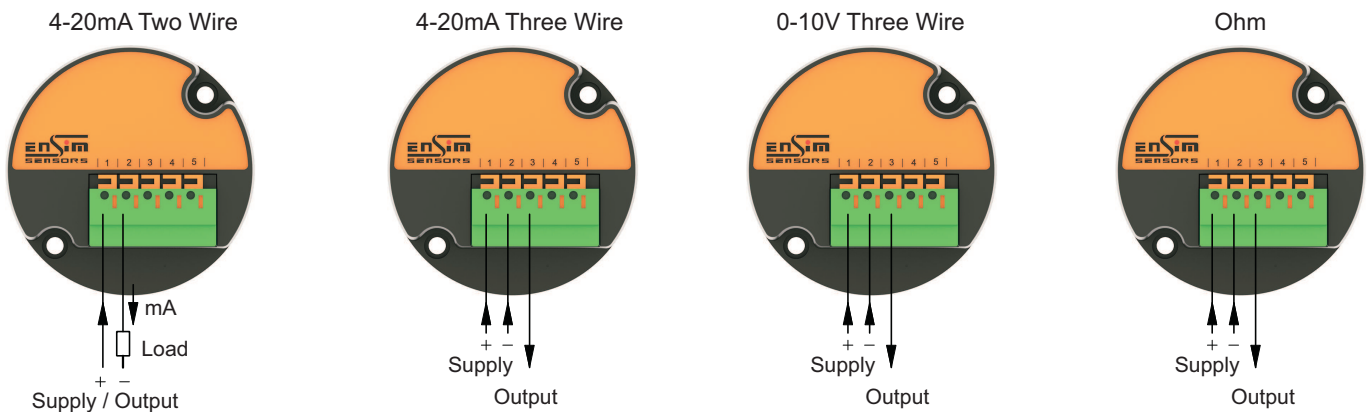
Example Models :



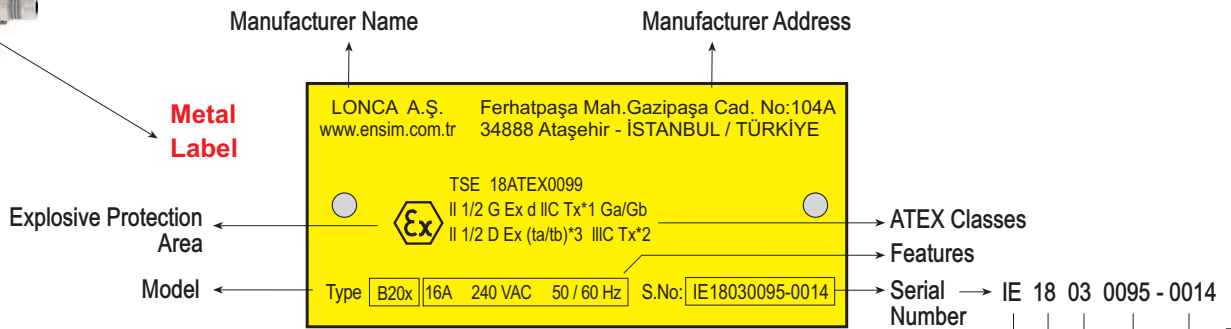
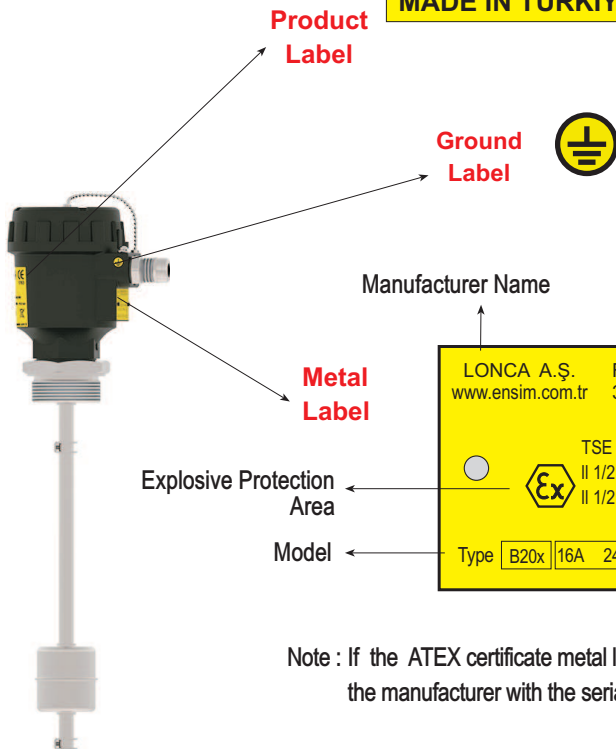
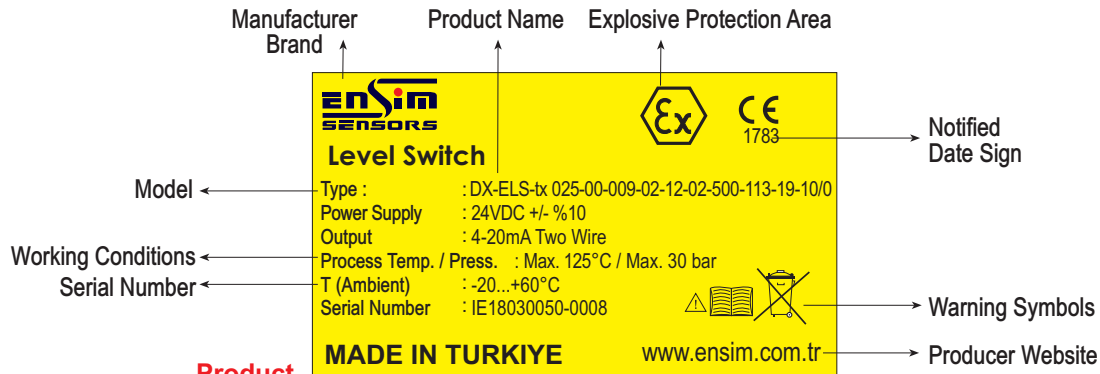
Sample of montage shapes :



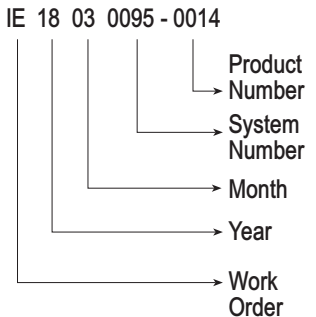
Electrical Connection :



Note: The IPC A 600 is manufactured in accordance with class 2 requirements. HALS (Unleaded) surface treatment applied.

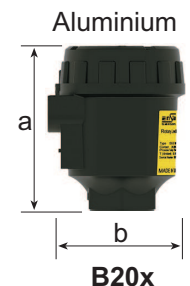


Note : If the ATEX certificate metal label is damaged, you can contact the manufacturer with the serial number.



Housign :

| ORDER CODE | TYPE | MATERIAL | PROTECTION CLASS | TEMPERATURE (°C) | SIZE a x b (mm) |
|------------|------|-----------|------------------|------------------|-----------------|
| 25 | B20x | Aluminium | IP 66 | (-) 40...(+) 200 | 132 x 104 |

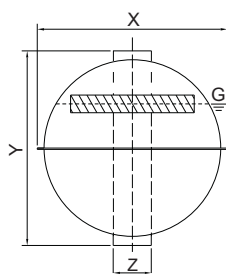


Protection Case:

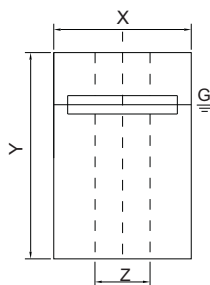


Material: 304 Stainless Steel
 Welded manufacturing
 With hinge
 To protect the switch against external conditions

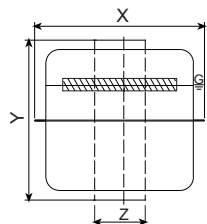
Float :



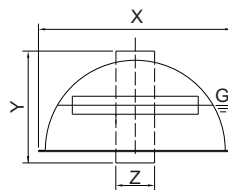
S2A / S5A / S6A
S40A / S41A / S53A



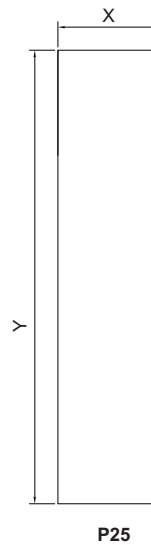
P3 / P6 / P7 P9



S1Y / S1A / S7A / S17A
S10Y / S11A / S54A

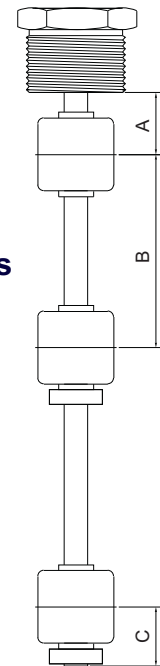


S42A / S52A



P25

Minimum Distances



Technical Specifications :

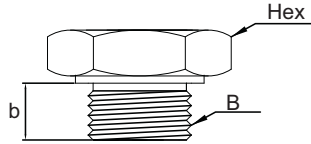
| Order Code | Type | Material | X | Y | Z | Dia. of Pipe | Max. Press. | Max. Temp. | Density | A | B | C |
|------------|------|-------------|------|------|------|--------------|-------------|------------|---------|----|----|----|
| 102 | S2A | 316 St.St. | 43 | 43 | 11 | 10 | 15 | 150 | 0.80 | 34 | 68 | 34 |
| 104 | S5A | 316 St.St. | 73 | 73 | 20 | 16 | 30 | 150 | 0.65 | 50 | 99 | 50 |
| 105 | S6A | 316 St.St. | 73 | 73 | 17 | 15 | 30 | 150 | 0.65 | 50 | 99 | 50 |
| 106 | S7A | 316 St.St. | 43 | 52 | 15 | 13 | 30 | 150 | 0.88 | 34 | 68 | 34 |
| 111 | S17A | 316 St.St. | 52 | 35 | 15 | 13 | 30 | 150 | 0.85 | 39 | 78 | 39 |
| 113 | S40A | 316 St.St. | 55 | 55 | 15 | 13 | 30 | 150 | 0.80 | 42 | 82 | 42 |
| 114 | S41A | 316 St.St. | 55 | 55 | 15 | 13 | 30 | 150 | 0,9 | 42 | 82 | 42 |
| 115 | S42A | 316 St.St. | 55 | 30 | 15 | 13 | 20 | 150 | 1,2 | 42 | 55 | 42 |
| 118 | S52A | 316 St.St. | 73 | 40 | 20 | 16 | 20 | 150 | 0,9 | 50 | 65 | 50 |
| 119 | S53A | 316L St.St. | 52,5 | 50,2 | 15,5 | 14 | 10 | 200 | 0,6 | 42 | 82 | 42 |
| 120 | S54A | 316L St.St. | 51 | 61,2 | 15,5 | 14 | 10 | 200 | 0,47 | 50 | 90 | 50 |

Technical Specifications :

| Order Code | Type | Material | X | Y | Z | Dia. of Pipe | Max. Press. | Max. Temp. | Density | A | B | C |
|------------|-------|----------|----|-----|----|--------------|-------------|------------|---------|----|----|----|
| 201 | P3 | PU | 30 | 45 | 12 | 10 | 1 | 80 | 0.76 | 28 | 60 | 40 |
| 203 | P6 | PU | 35 | 42 | 15 | 13 | 1 | 80 | 0.65 | 35 | 65 | 40 |
| 204 | P7 | PU | 44 | 50 | 18 | 15 | 1 | 80 | 0.40 | 38 | 70 | 50 |
| 213 | P9 | PP | 46 | 44 | 17 | 15 | 5 | 80 | 0.65 | 38 | 76 | 38 |
| 206 | P25-1 | PU | 25 | 150 | - | - | 1 | 80 | 0.80 | - | - | - |
| 207 | P13 | PU | 30 | 32 | 12 | 10 | 1 | 80 | 0.90 | 28 | 75 | 40 |

Mechanical Connection:

Thread

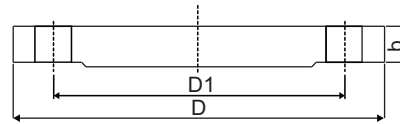


(ISO228-1)

| Order Code | Dimension B | Hex [mm] | Stem Length b [mm] |
|------------|-------------|----------|--------------------|
| 001 | 1/8" BSP | 17 | 12 |
| 002 | 1/4" BSP | 17 | 12 |
| 003 | 3/8" BSP | 24 | 20 |
| 004 | 1/2" BSP | 27 | 14 |
| 005 | 3/4" BSP | 32 | 14 |
| 006 | 1" BSP | 41 | 23 |
| 007 | 1 1/4" BSP | 51 | 23 |
| 008 | 1 1/2" BSP | 60 | 23 |
| 009 | 2" BSP | 70 | 23 |

Flanged

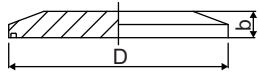
| Order Code | (ISO1092-1) PN 16 | D (mm) | D1 (mm) | b (mm) |
|------------|-------------------|--------|---------|--------|
| 103 | DN 25 | 165 | 85 | 16 |
| 104 | DN 32 | 140 | 100 | 16 |
| 106 | DN 50 | 165 | 125 | 18 |
| 108 | DN 80 | 200 | 160 | 20 |
| 109 | DN 100 | 220 | 180 | 20 |



| Order Code | (ISO1092-1) PN 40 | D (mm) | D1 (mm) | b (mm) |
|------------|-------------------|--------|---------|--------|
| 303 | DN 25 | 115 | 85 | 18 |
| 304 | DN 32 | 140 | 100 | 20 |
| 306 | DN 50 | 165 | 125 | 20 |
| 308 | DN 80 | 200 | 160 | 20 |
| 309 | DN 100 | 235 | 190 | 24 |

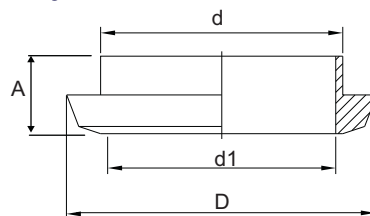
| Order Code | (ANSI B16.5) 150 LBS | D (mm) | D1 (mm) | b (mm) |
|------------|----------------------|--------|---------|--------|
| 606 | DN 50 | 152,4 | 121 | 19 |
| 607 | DN 65 | 177,8 | 139,7 | 22,2 |
| 608 | DN 80 | 190,5 | 152,4 | 23,8 |
| 609 | DN 100 | 228,6 | 157,2 | 23,8 |

Clamp



| Order Code | (ISO2852) Dimension | Diameter D (mm) | b (mm) |
|------------|---------------------|-----------------|--------|
| 851 | DN 32 | 50,5 | 15 |
| 852 | DN 50 | 64 | 17 |
| 853 | DN 65 | 91 | 17 |

Dairy



| Order Code | Dimension | Dimension | D (mm) | d1 (mm) | A (mm) |
|------------|-----------|-----------|--------|---------|--------|
| 870 | DN 40 | DN 40 | 56 | 48 | 13 |
| 871 | DN 50 | DN 50 | 68 | 61 | 14 |
| 872 | DN 100 | DN 100 | 121 | 114 | 20 |

All dimensions are stated as mm.

Temperature Class Chart

| STD. MODEL | DX-ELS-tx (Metal) | DX-ELS-tx (Plastic) |
|---|------------------------|-----------------------|
| Working Temperature | (-) 20 °C...(+) 100 °C | (-) 20 °C...(+) 80 °C |
| Waiting Period before opening the cover | 20 min. | 5 min. |

Thermal Protection Insurance is 105 ° C.

| (-) 20 °C ≤ T ambient ≤ (+) 30 °C...(+) 60 °C Working Temperature : (-) 20 °C...(+) 100 °C | | | |
|---|--|---------------------------------------|-------------------|
| DX-ELS-tx (Metal) | | | |
| T Ambient MAX. AMBIENT TEMPERATURE ZONE 21 / 1 | T Process MAX. PROCESS TEMPERATURE ZONE 20 / 0 | T Surface MAX. SURFACE TEMPERATURE | TEMPERATURE CLASS |
| 30 °C | 125 °C | 50 °C | T6 |
| 40 °C | 125 °C | 60 °C | T6 |
| 50 °C | 125 °C | 70 °C | T6 |
| 60 °C | 125 °C | 82 °C | T6 |

| (-) 20 °C ≤ T ambient ≤ (+) 30 °C...(+) 60 °C Working Temperature : (-) 20 °C...(+) 80 °C | | | |
|--|--|---------------------------------------|-------------------|
| DX-ELS-tx (Plastic) | | | |
| T Ambient MAX. AMBIENT TEMPERATURE ZONE 21 / 1 | T Process MAX. PROCESS TEMPERATURE ZONE 20 / 0 | T Surface MAX. SURFACE TEMPERATURE | TEMPERATURE CLASS |
| 30 °C | 80 °C | 41 °C | T6 |
| 40 °C | 80 °C | 54 °C | T6 |
| 50 °C | 80 °C | 67 °C | T6 |
| 60 °C | 80 °C | 82 °C | T6 |

Order Form: **Please consider sample models when coding!..**

1 MODEL

Standard VersionDX-ELS-tx

2 CERTIFICATE

No.....0 (EN10204-3-1) Material Certification.....1

3 HOUSING

Aluminium B20x.....368 Special.....x

4 ELECTRICAL CONNECTION

With Terminals (For Housing Models).....00 Special.....x

5 CONNECTION

| | |
|--------------------------------------|--------------------|
| Thread 3/8" BSP.....003 | 1/8" NPT.....051 |
| Thread 1/2" BSP.....004 | 1/4" NPT.....052 |
| Thread 3/4" BSP005 | 3/8" NPT.....053 |
| Thread 1" BSP.....006 | 1/2" NPT.....054 |
| Thread 1 1/4" BSP.....007 | 3/4" NPT.....055 |
| Thread 1 1/2" BSP.....008 | 1" NPT.....056 |
| Thread 2" BSP.....009 | 1 1/4" NPT.....057 |
| Thread 1/2" BSP (Adjustable).....013 | 1 1/2" NPT.....058 |
| | 2" NPT.....059 |
| Thread 3/8" BSP With Elbow.....093 | |
| Thread 1/2" BSP With Elbow.....094 | Special.....x |

Note: Refer to the table for others.

6 CONNECTION MATERIAL

| | |
|----------------------------|------------------|
| 304 Stainless Steel.....01 | Aluminium.....05 |
| 316 Stainless Steel.....02 | Special.....x |
| Brass.....03 | |

7 PIPE SIZE

| | |
|----------------|------------------------|
| 8 mm.....08 | 12.7 mm / 13 mm.....13 |
| 10 mm.....10 | 15 mm.....15 |
| 12,7 mm.....12 | Special.....x |

8 PIPE MATERIAL

| | |
|----------------------------|---------------|
| 304 Stainless Steel.....01 | Brass.....08 |
| 316 Stainless Steel.....02 | Special.....x |

9 STEM LENGHT

.... mm

Note: From connection thread included

10 FLOAT MODEL

Select from Table

Note: Should be selected according to the connection and radius.

11 OUTPUT

| | | | |
|------------------------|----|-----------------|----|
| 4-20mA Two Wire..... | 19 | 3-180 Ohm..... | 23 |
| 4-20mA Three Wire..... | 20 | 10-180 Ohm..... | 24 |
| 0-10V Three Wire..... | 21 | 240-33 Ohm..... | 25 |
| 0-20mA Three Wire..... | 22 | Special..... | x |

12 SENSITIVITY RANGE

| | | | |
|------------|----|--------------|----|
| 15 mm..... | 15 | 5 mm..... | 05 |
| 10 mm..... | 10 | Special..... | x |

13 OPTIONAL

| | |
|-------------|---|
| No..... / 0 | External Tank (Measurement must be specified) ... / H |
| | Test Rod / T |
| | Float Housing... / M |
| | Special..... / x |

EXAMPLE

DX-ELS-tx 0368 - 00 - 009 - 02 - 13 - 02 - 1200 - 113 - 20 - 10 / 0

DX-ELS-tx Level Transmitter, Aluminium Housing, 2" BSP Male Thread, Connection and Pipe Material 316 St.St.
L = 1200mm, S40A Float, 4-20mA Three Wire Output, 10mm sensivity