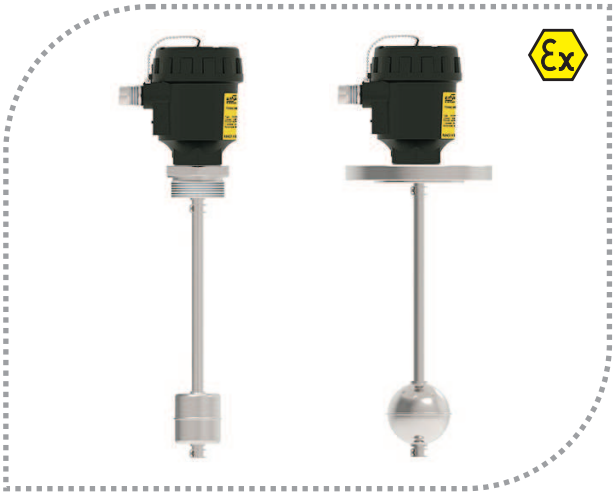
DX-ELStx level sensors are used for tank levels and for controls.
Different options available for housing , connection and material type.



Working Principle:

In the float when the magnet magnetic area moves according to the liquid in the tube, then the reed swicthes the electrical circuit on or off when it reaches the level of the sensor. The changes of the reed sensors with alarm or a level information can be assessable with a relay circuit or a control device.The advantages of providing the analog output in the enclosure are preferred by the users.

Application Areas:

Tank level measurement and control,boiler kontrol,store room control..
Yacht water level control, sewage level control.
Hydraulic oil tank level measurement and control

DX-ELS

LEVEL CONTROL

DX-ELS

Advantages:

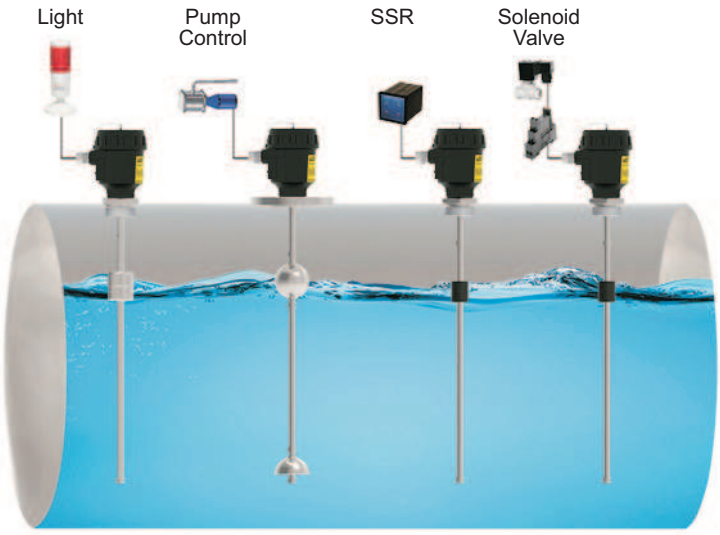
*A variety of materials according to the flow
*Different choices of ignition
*Quick delivery
*Different types of technics

Model: 02-2019-005

Certification

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

Example of application :



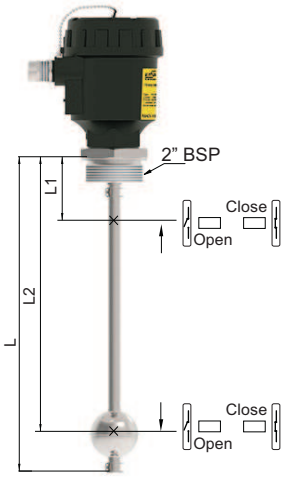
Technical Specifications :

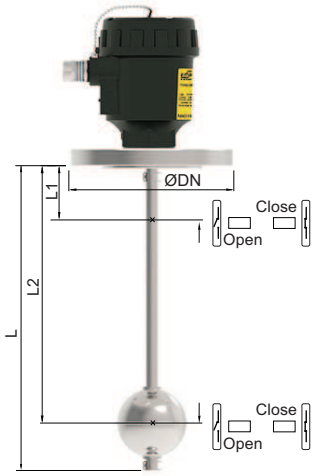
DX-ELS

Working Temperature (Tp)		Max. 125 °C , 80 °C (Plastic Model)
Ambient Humidity		0-98 % Rh (Non-condensing)
Ambient Temperature (Ta)		(-) 20 °C ... (+) 60 °C
Material	Connection	304 St.St. (Std.) Opt. 316 St.St. , Aluminum
	Housing	Aluminium Injection - AlSi12Fe (Std) Black (RAL 9005)
	Float	316 St.St. (Std.) Opt. PU , PP
	Pipe	304 St.St. (Std.) Opt. 316 St.St. , Brass, PVC , PTFE
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)
Number of contacts		2 x SPST - NA (Std.) Opt. It can be added.
Contact Current		1,5 Amper (Std.)
Max. Contact Current		50 W / VA veya 20 W / VA
Max. Supply Voltage		200 VDC / 250 VAC , 30 VDC / 140VAC (Std.) Opt. Selectable.
Protection Class		IP 66 (EN60529)
Certifications and Approvals		CE Declaration , EMC , LVD , ATEX

Sample Models

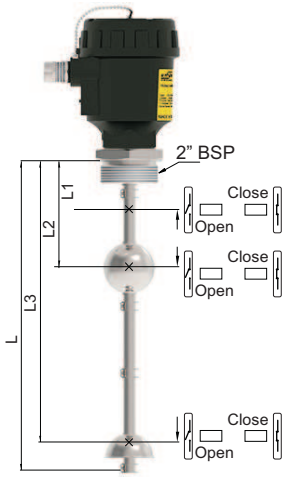
Housing - Thread (Std.)

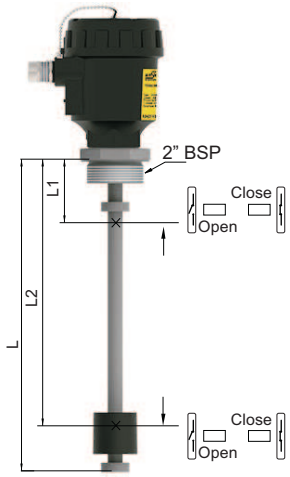




Housing - Flanged

Housing Double Float



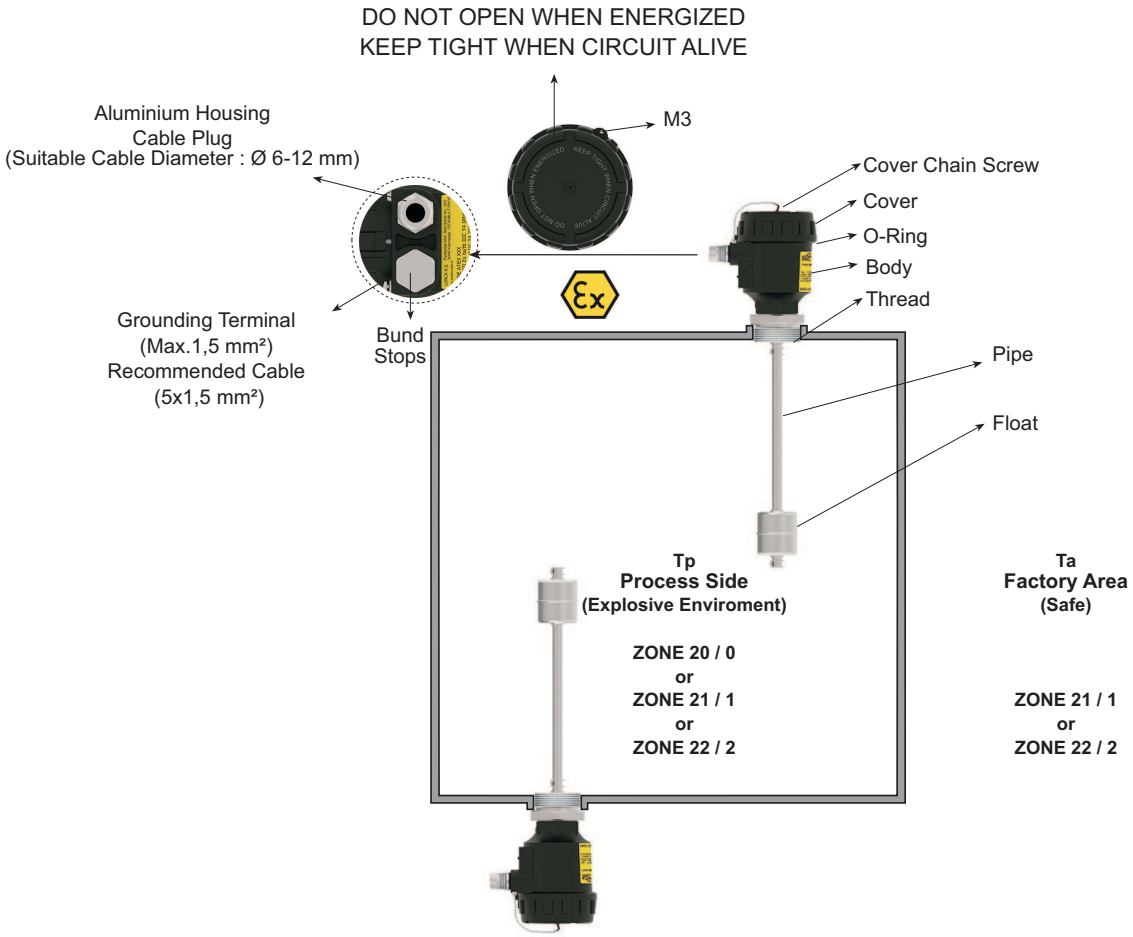


Housing - Thread

Test Rod :

Rod Material	304 St.St. (Std.) Opt. 316 St.St.
Shaft Material	304 St.St. (Std.) Opt. 316 St.St.

It is produced as a spring.As an optional it can be inside housing.

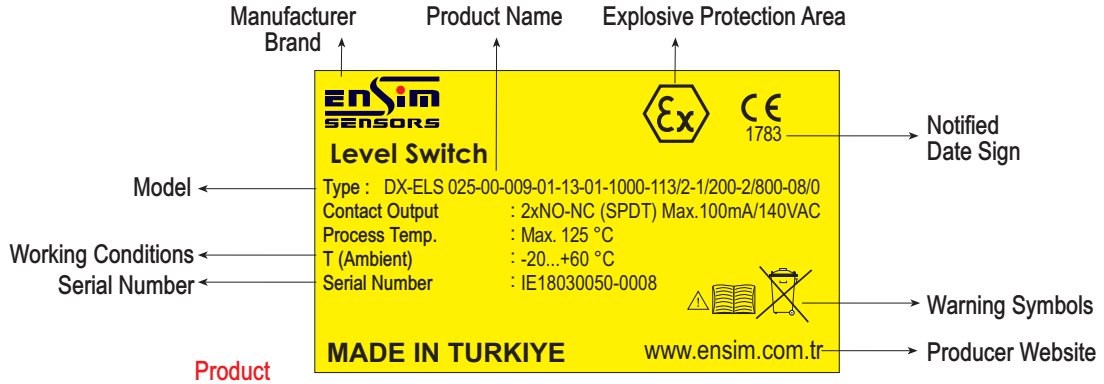


Housing :

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

Protection Case :

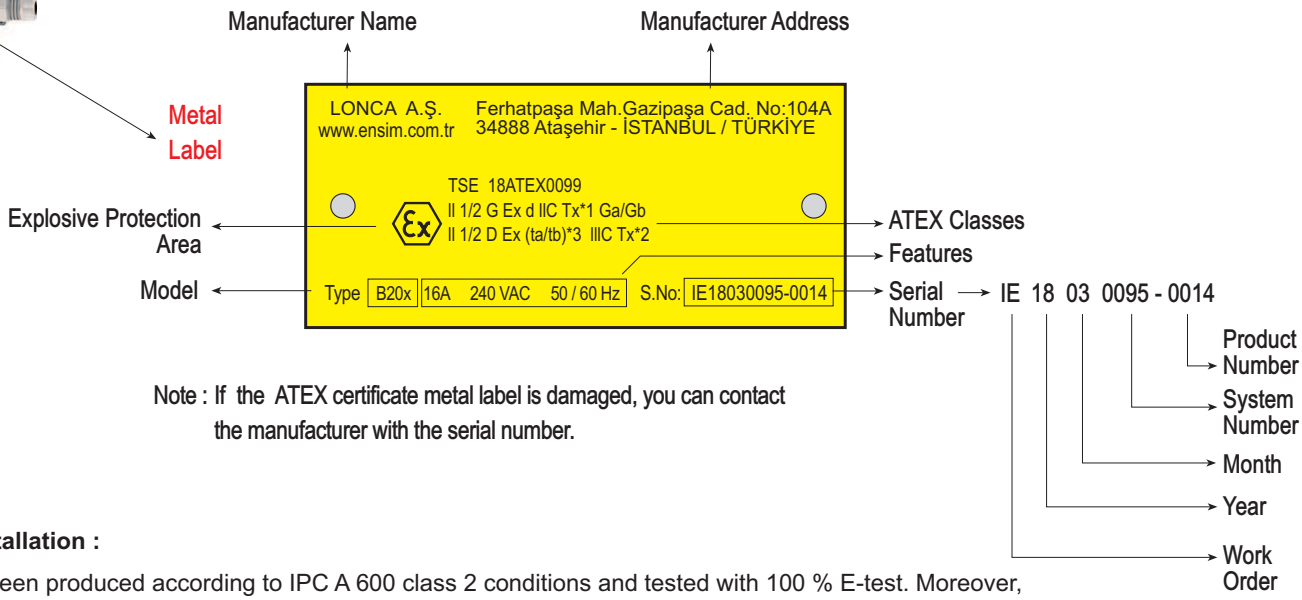
Material : 304 Stainless Steel
Welded manufacturing
Opens - Closes Hinged
To Protect Against external conditions.



Product Label

Ground Label

Metal Label



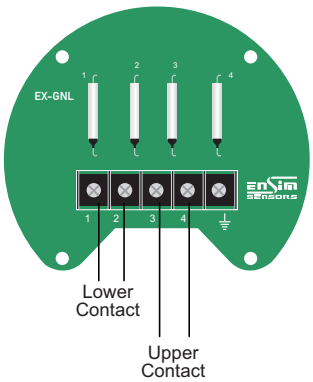
Note : If the ATEX certificate metal label is damaged, you can contact the manufacturer with the serial number.

Electrical Installation :

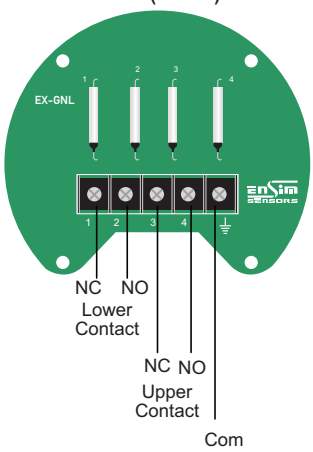
Note : It has been produced according to IPC A 600 class 2 conditions and tested with 100 % E-test. Moreover, HASL (non-lead) surface test has been applied.

B20p, B20x

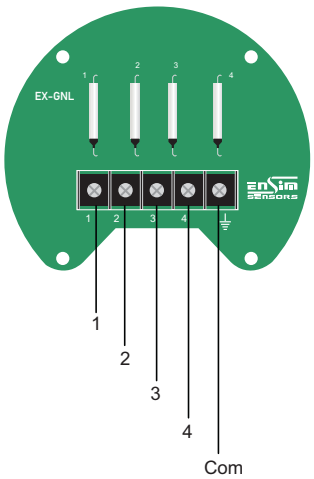
Two independent contacts
NO or NC



Two double contacts
NO / NC (SPDT)

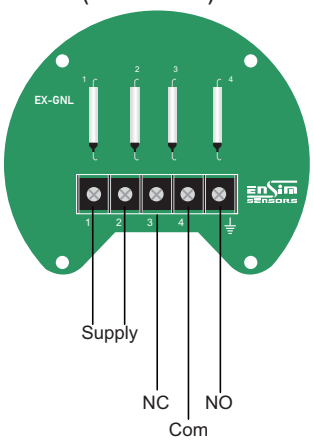


Four contacts
NO or NC



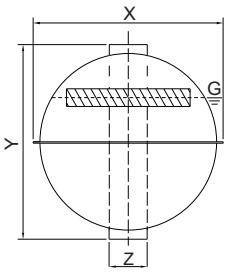
ELS SSR

Liquid level relay
(12 / 24 VDC)

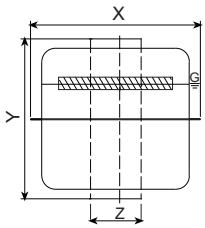


Note: RLY Led is designed to switch off while the pump is working.

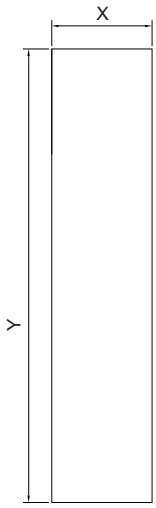
Float Types :



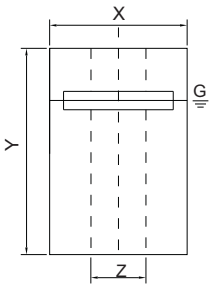
S2A / S5A / S6A
S40A / S41A / S53A



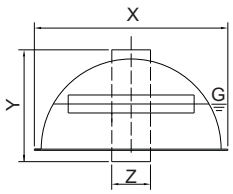
S1Y / S1A / S7A / S17A
S10Y / S11A / S54A



P25

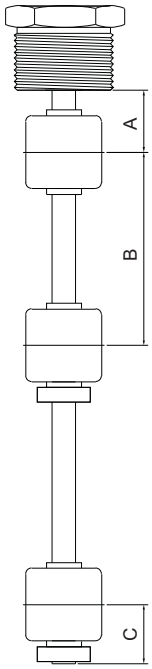


P3 / P6 / P7 P9



S42A / S52A

Minimum Distances

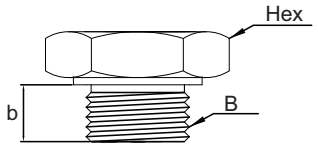


Order Code	Type	Material	X	Y	Z	Pipe Dia.	Max. Press.	Max. Temp.	Density	A	B	C
001	S1Y	304 St. St.	28	28	9.5	8	10	150	0.80	25	50	25
101	S1A	316 St. St.	28	28	9.5	8	10	150	0.80	25	50	25
006	S10Y	304 St. St.	25,4	24,5	9.5	8	10	110	0,82	22	45	22
110	S11A	316L St. St.	28,6	28	9.5	8	15	200	0,70	26	52	26
102	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

Order Code	Type	Material	X	Y	Z	Pipe Dia.	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

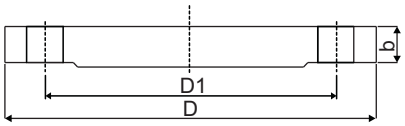


(ISO228-1)

Order Code	Dimension B	Hex [mm]	Stem Lenght 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

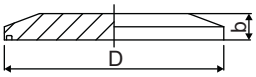
Order Code	(ISO1092-1) PN 16	D (mm)	D1 (mm)	b (mm)
103	DN 25	165	85	16
104	DN 32	140	100	16
106	DN 50	165	125	18
108	DN 80	200	160	20
109	DN 100	220	180	20



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

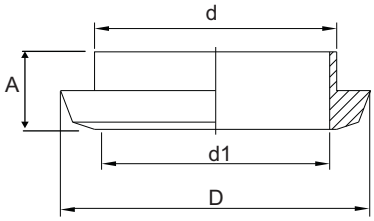
Order Code	(ANSI B16.5) 150 LBS	D (mm)	D1 (mm)	b (mm)
606	DN 50	152,4	121	19
607	DN 65	177,8	139,7	22,2
608	DN 80	190,5	152,4	23,8
609	DN 100	228,6	157,2	23,8

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

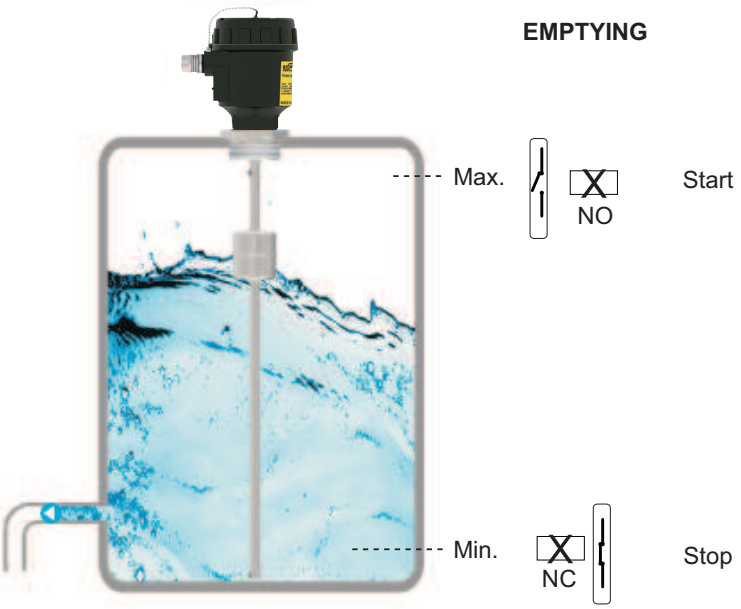
Dairy

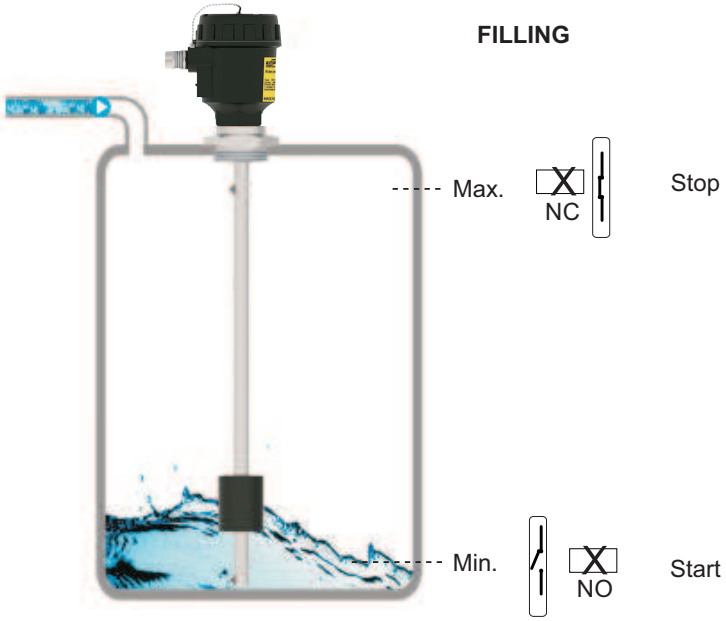


Order Code	Dimension	Dimension	D (mm)	d1 (mm)	A (mm)
870	DN 40	DN 40	56	48	13
871	DN 50	DN 50	68	61	14
872	DN 100	DN 100	121	114	20

All dimensions are stated as mm.

Sample Application :





Temperature Class Table

STD. MODEL	DX-ELS (Metal)
Working temperature	(-) 20 °C... (+) 125 °C
Without opening the cover standby time	20 min.
Plastic models working temperature	(-) 20 °C ... (+) 60 °C

Thermal Protection Insurance is 105 °C

(-) 20 °C ≤ T Ambient ≤ (+) 30 °C...(+) 60 °C	Working Temperature: (-) 20 °C ... (+) 125 °C		
DX-ELS (Metal)			
T Ambient MAX. AMBIENT TEMPERATURE ZONE 21 / 1	T Process MAX. PROCESS TEMPERATURE ZONE 20 / 0	T Surface MAX. SURFACE TEMPERATURE	TEMPERATURE CLASS

(-) 20 °C ≤ T Ambient ≤ (+) 30 °C...(+) 60 °C	Working Temperature : (-) 20 °C ... (+) 80 °C		
DX-ELS 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	40 °C	T6
40 °C	80 °C	53 °C	T6
50 °C	80 °C	65 °C	T6
60 °C	80 °C	82 °C	T6

Order Form : Please consider sample models when coding

1 MODEL

Standard Version .....DX-ELS

2 CERTIFICATE

No.....0

(EN10204-3-1) Material Certification.....1

3 HOUSING

Aluminium Housing B20x.....368

Special.....x

4 ELECTRICAL CONNECTION

With Terminals.....00

Special.....x

5 CONNECTION

Thread 3/8" BSP.....003
Thread 1/2 "BSP.....004
Thread 3/4" BSP 005
Thread 1" BSP.....006
Thread 1 1/4" BSP.....007
Thread 1 1/2" BSP.....008
Thread 2" BSP.....009
Thread 1/2" BSP (Adjustable).....013

Thread 3/8" BSP With Elbow.....093
Thread 1/2" BSP With Elbow.....094

1/8" NPT.....051
1/4" NPT.....052
3/8" NPT.....053
1/2" NPT..... 054
3/4" NPT.....055
1" NPT.....056
1 1/4" NPT.....057
1 1/2" NPT.....058
2" NPT..... 059

DN 25 - PN16 Flanged.....103
DN 32 - PN16 Flanged.....104
DN 50 - PN16 Flanged.....105
DN 80 - PN16 Flanged.....108
DN 100 - PN16 Flanged.....109

Special.....x

Note: Refer to the table for others.

6 CONNECTION MATERIAL

304 Stainless Steel.....01
316 Stainless Steel.....02

Aluminium.....03
Special.....x

7 PIPE SIZE

Ø 10 mm.....10
Ø 12 mm.....11

Ø 12.7 mm.....12
Ø 13 mm.....13
Ø 15 mm.....15
Special.....x

8 PIPE MATERIAL

304 Stainless Steel.....01
316 Stainless Steel.....02
PVC.....08
PTFE.....66
Special.....x

9 STEM LENGHT

.... mm

Note: From connection thread included

10 FLOAT MODEL / FLOAT NUMBER

Select from Table.....Number.....Piece

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

11 CONTACT NUMBER / DISTANCE (mm)

Piece / Lenght (mm).....

Note: From connection thread included

12 CONTACT STRUCTURE

NO Reed Relay.....06
NC Reed Relay.....07
NO / NC Reed Relay.....08
NO Hold Type Reed Relay.....09
Special..... / x

13 OPTIONAL

No..... .0
Pt100 Sensor...../ P
Liquid Level Relay...../ SSR
External Tank (Measurement must be specified) ... / H
Test Rod ..... / T
Float Housing... ..... / M
Special..... / x

EXAMPLE

DX-ELS 0368 - 00 - 005 - 01 - 13 - 01 - 1500 - 001 / 1 - 1 / 1400 - 08 / 0

DX-ELS Level Switch, Plastic Housing, 3/4” BSP Male Thread, Connection and Pipe Material 304 St.St. L=1500 mm, S1Y Float , L1= NO / NC Reed Relay Output