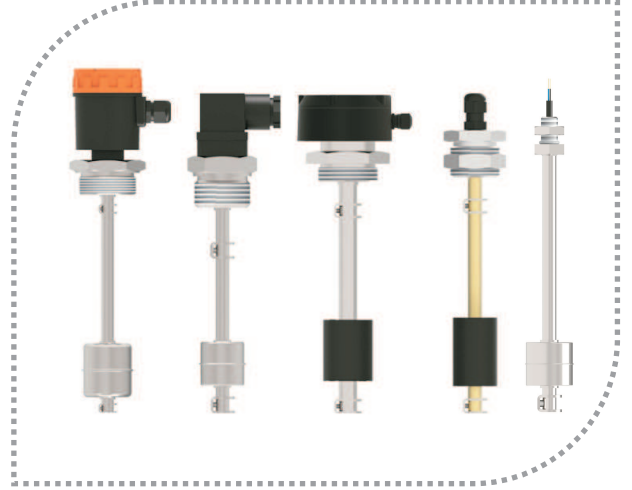


ELS Level sensors are used for controlling level of a tank.
Different kinds materials and housing connection types are available.

Working Principle:

When magnetic field of magnet within the buoy moving along tube according to liquid level comes up to the reed sensor, it opens or closes the electric circuit. Such changes of reed sensors and alarm or level information can be assessed through a relay circuit or control device. It is preferred by the users because relay output is provided within the housing.



ELS LEVEL SWITCH

Advantages :

- * Different material options according to liquid type
- * Different contact options
- * Fast delivery
- * Different type applications possible



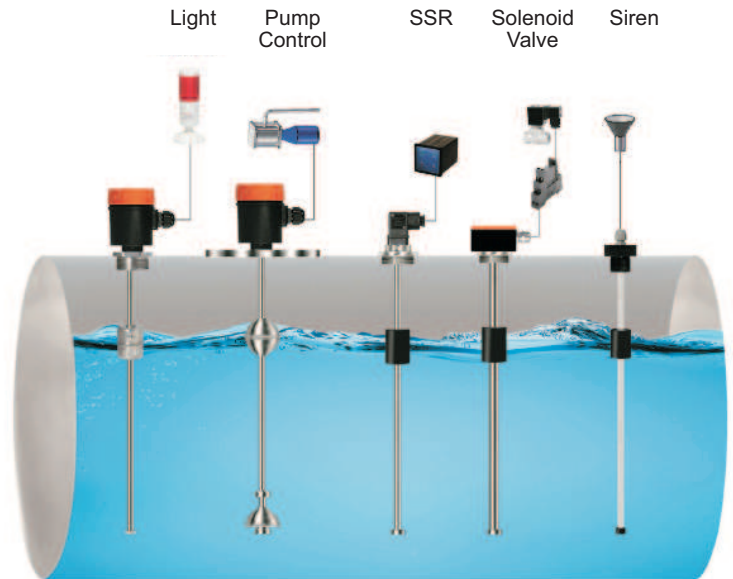
Kullanım Alanları :

Tank seviye ölçüm ve kontrolü, kazan kontrolü, depo kontrolü.

Yacht water level control, Dirty level control.

Hydraulic oil tank level measurement and control.

Application Examples :

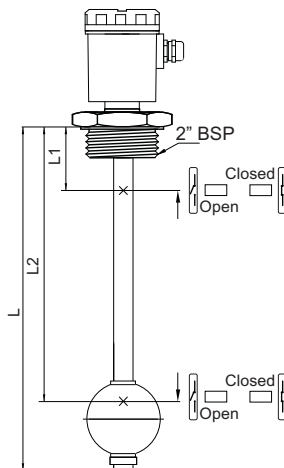


Technical Specifications :

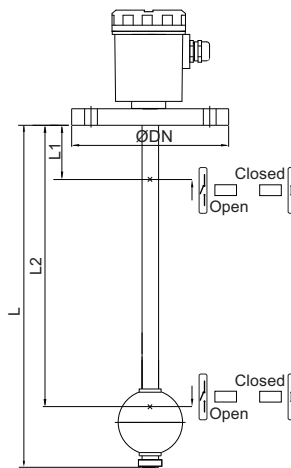
ELS

Float Material	304 Stainless Steel
Wetted Parts Material	304 Stainless Steel (Std.) Opt. 316 St.St.
Pipe Material	304 Stainless Steel (Std.) Opt. 316 St.St.
Float Type	S4A or S40A (Std.) Selectable from Table.
Working Temperature	Max. 125 °C
Mechanical Connection	2" BSP (Std.) Opt. Selectable
Electrical Connection	Terminal, With Cable, With Socket
Number of Float	1 (Std.) Available Numerous
Stem Length	Max. 2500 mm (Thread Included)
Number of Contact	2 x SPST - NO (Std.) Opt. can be added
Contact Current	1,5 Amper (Std.)
Max.Contact Capacity	50 W / VA
Max. Supply Voltage	200 VDC / 250 VAC (Std.) Opt. Selectable

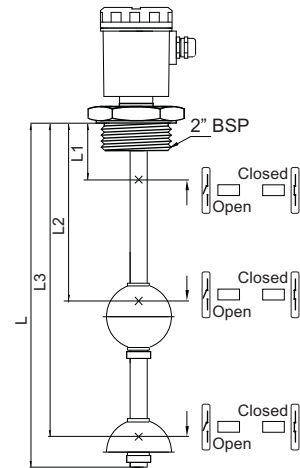
Sample Models :



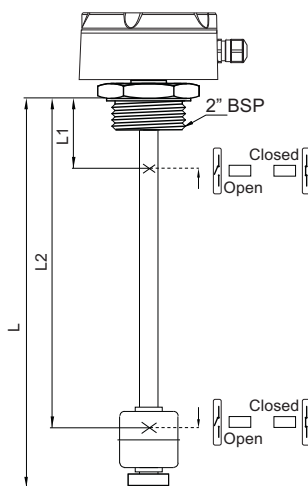
Housing - Thread



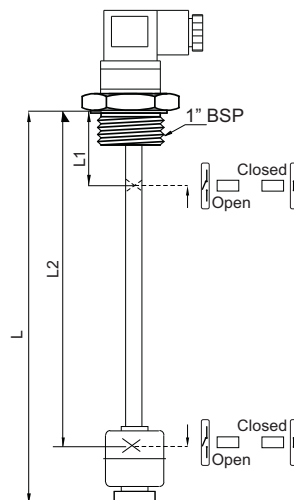
Housing - Flanged



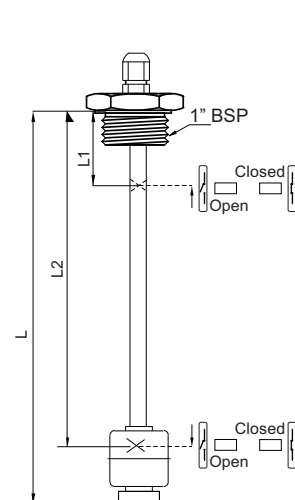
Housing - Double Float



Housing

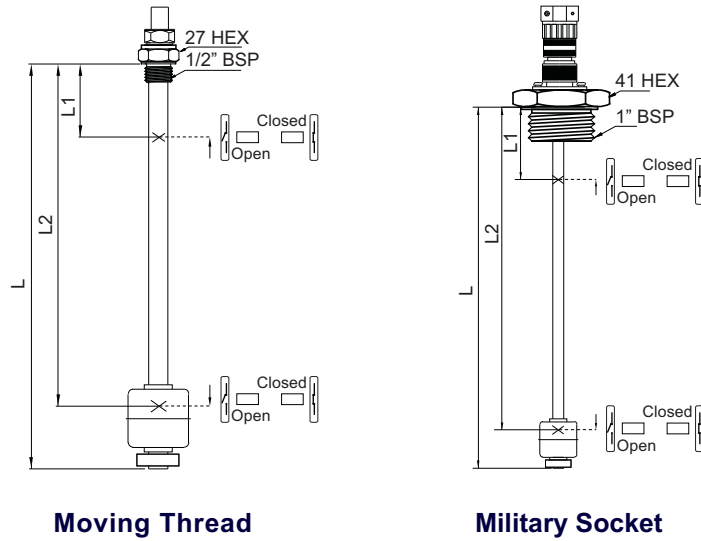


With Socket



With Cable

Sample Models :

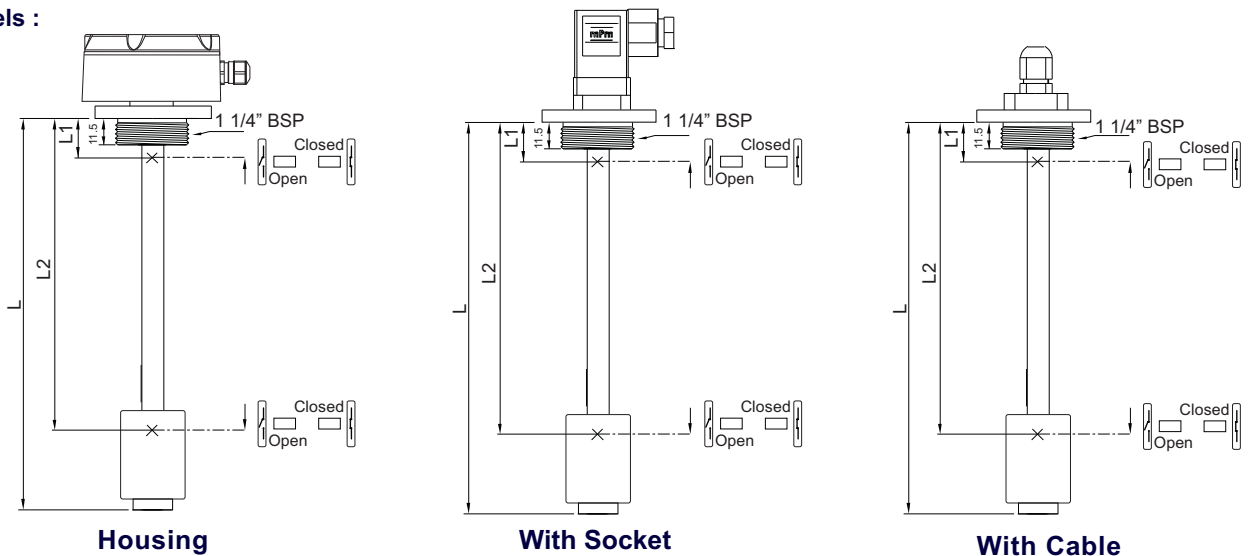


Technical Specifications :

ELSy

Float Material	PU (Std.)
Wetted Parts Material	304 Stainless Steel (Std.) Opt. 316 St.St.
Pipe Material	304 Stainless Steel (Std.) Opt. 316 St.St.
Float Type	P3 (Std.) Selectable from Table.
Working Temperature	Max. 80 °C
Mechanical Connection	1 1/4" BSP
Electrical Connection	Terminal, With Cable, With Socket
Number of Float	1 (Std.) Available Numerous
Stem Length	Max. 2500 mm (Thread Included)
Number of Contact	2 x SPST - NO (Std.) Opt. can be added
Contact Current	1,5 Amper (Std.)
Max.Contact Capacity	50 W / VA
Max. Supply Voltage	200 VDC / 250 VAC (Std.) Opt. Selectable

Sample Models :

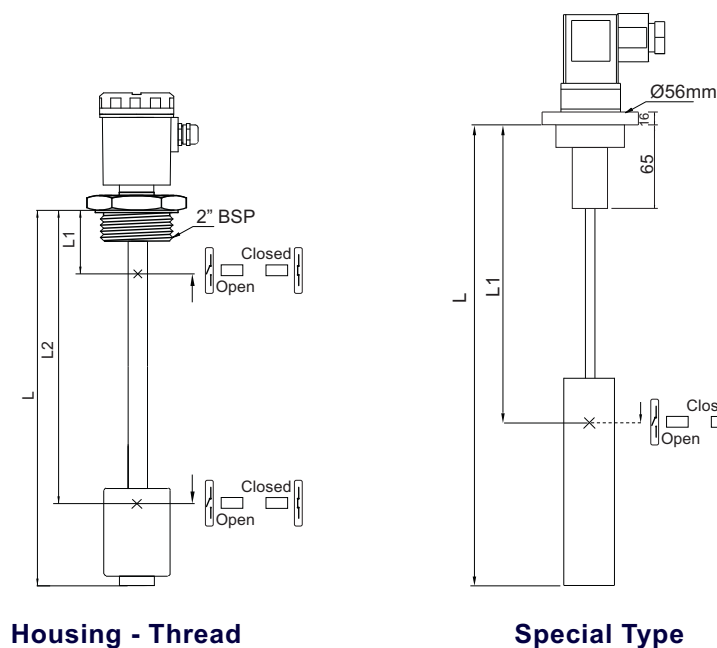
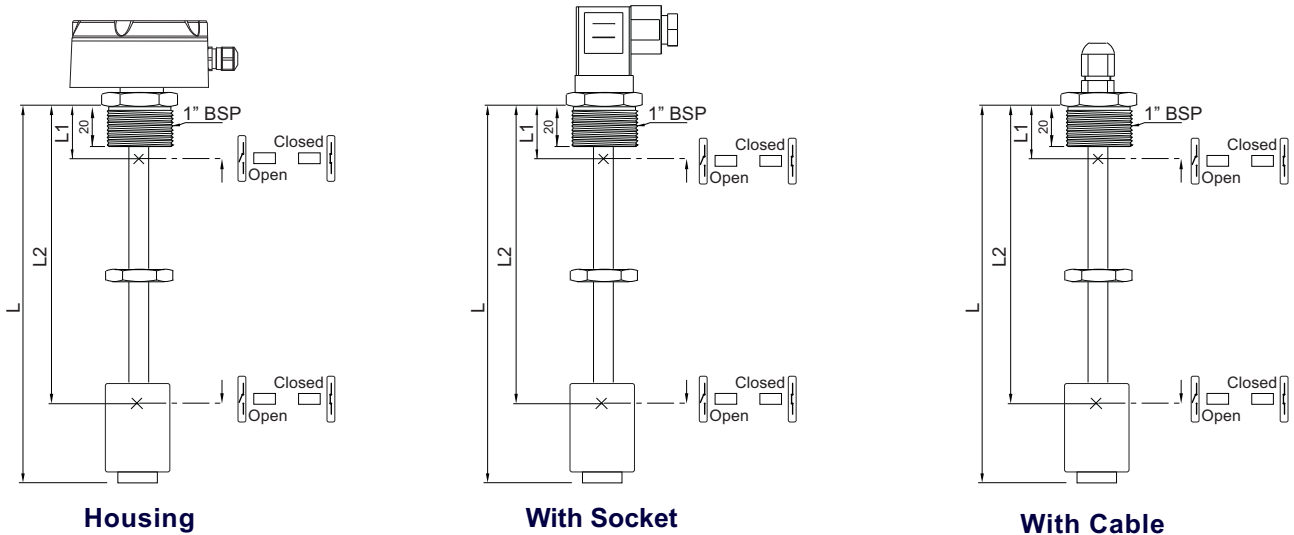


Technical Specifications :

ELSp

Float Material	PU (Std.)
Wetted Parts Material	Aluminium (Std.) Opt. PVC, Delrin, PTFE, PFT
Pipe Material	Brass (Std.) Opt. PVC
Float Type	P3 (Std.) Selectable from Table.
Working Temperature	Max. 80 °C
Mechanical Connection	1" BSP + Nut
Electrical Connection	Terminal, With Cable, With Socket
Number of Float	1 (Std.) Available Numerous
Stem Length	Max. 2500 mm (Thread Included)
Number of Contact	2 x SPST - NO (Std.) Opt. can be added
Contact Current	1,5 Amper (Std.)
Max.Contact Capacity	50 W / VA
Max. Supply Voltage	200 VDC / 250 VAC (Std.) Opt. Selectable

Sample Models :

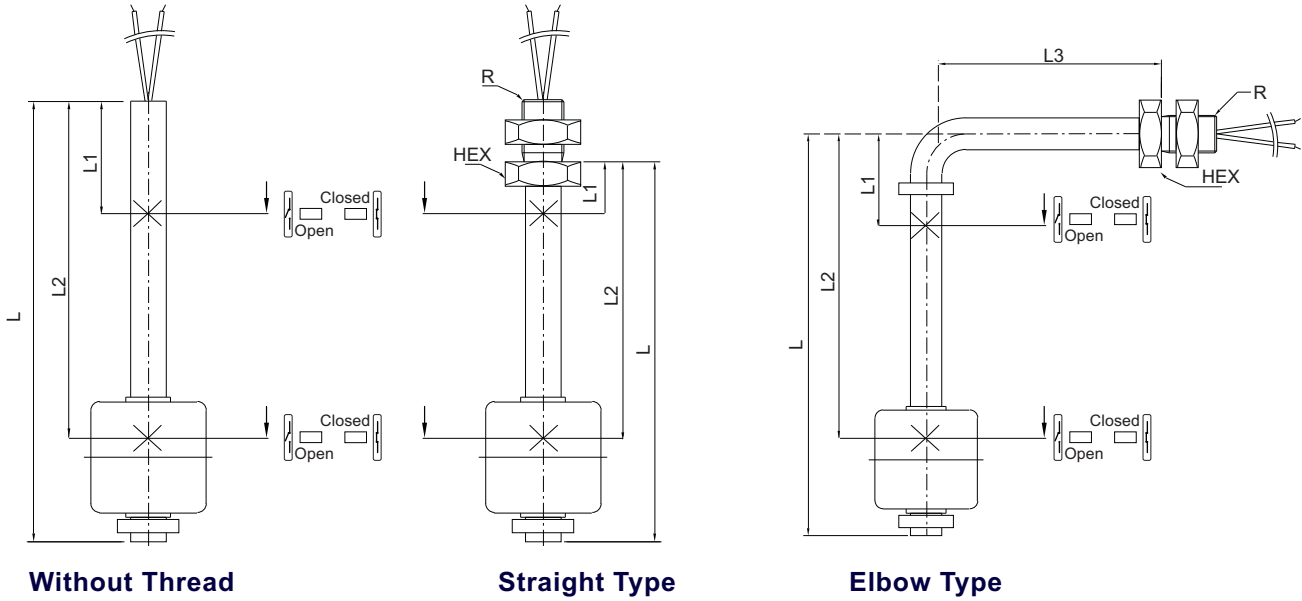


Technical Specifications :

ELSm

Float Material	304 Stainless Steel (Std.) Opt. 316 St.St.
Wetted Parts Material	304 Stainless Steel (Std.) Opt. 316 St.St.
Pipe Material	304 Stainless Steel (Std.) Opt. 316 St.St.
Float Type	S1Y (Std.) , Selectable from Table.
Working Temperature	Max. 125 °C
Mechanical Connection	1/8" BSP + Nut (Std.) Opt. M10 x 1 mm ² + Nut
Electrical Connection	With Cable,
Number of Float	1 (Std.) Available Numerous
Stem Length	Max. 2500 mm (HEX Included)
Number of Contact	2 x SPST - NO (Std.) Opt. can be added
Contact Current	1 Amper (Std.)
Max.Contact Capacity	10 W / VA
Max. Supply Voltage	200 VDC / 140 VAC (Std.) Opt. Selectable

Sample Models :



Test Rod:

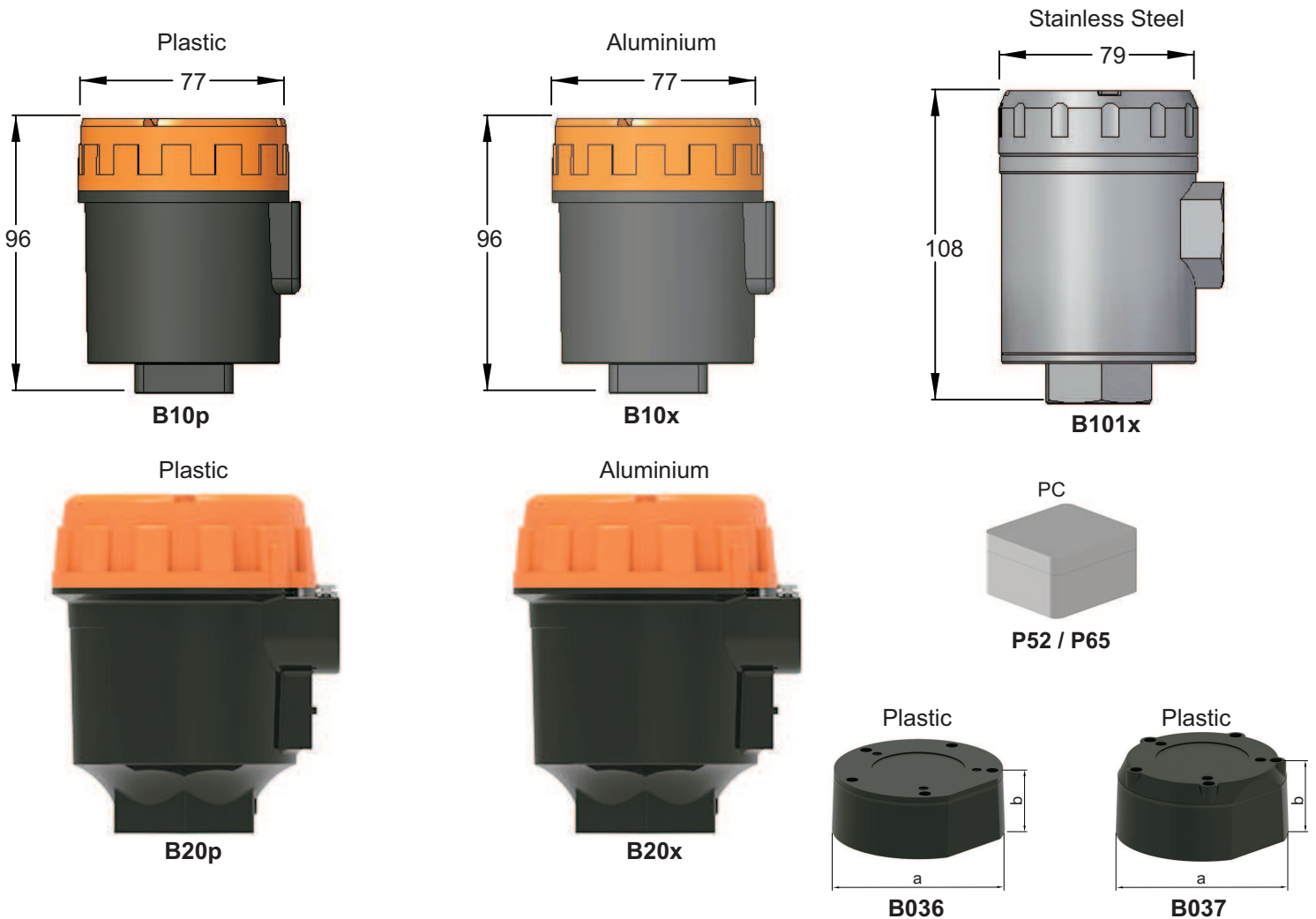
Rod Material	304 Stainless Steel (Std.) Opt. 316 Stainless Steel
Arm Material	304 Stainless Steel (Std.) Opt. 316 Stainless Steel

Yaylı olarak imal edilmiştir. Opsiyonel olarak muhafaza içine alınabilir.



Housing :

ORDER CODE	TYPE	MATERIAL	PROTECTION CLASS	TEMPERATURE (°C)	SIZE a x b x c (mm)
050	B10p	Plastic (PBT)	IP 65	(-) 40 °C ... (+) 150 °C	96 x 77
016	B20p	Plastic (PBT)	IP 65	(-) 40 °C ... (+) 150 °C	132 x 104
036	B037	Plastic (PBT)	IP 65	(-) 30 °C ... (+) 100 °C	93 x 43
333	B10x	Aluminium	IP 65	(-) 40 °C ... (+) 150 °C	96 x 77
378	B20x	Aluminium	IP 66	(-) 40 °C ... (+) 200 °C	132 x 104
306	B010	Aluminium (Double Cell)	IP 68	(-) 40 °C ... (+) 100 °C	91 x 116
102	B101x	Stainless Steel	IP 65	(-) 40 °C ... (+) 150 °C	108 x 79
200	P52	PC Grey	IP 65	(-) 20 °C ... (+) 125 °C	52 x 50 x 36
201	P65	PC Grey	IP 65	(-) 20 °C ... (+) 125 °C	65 x 58 x 36



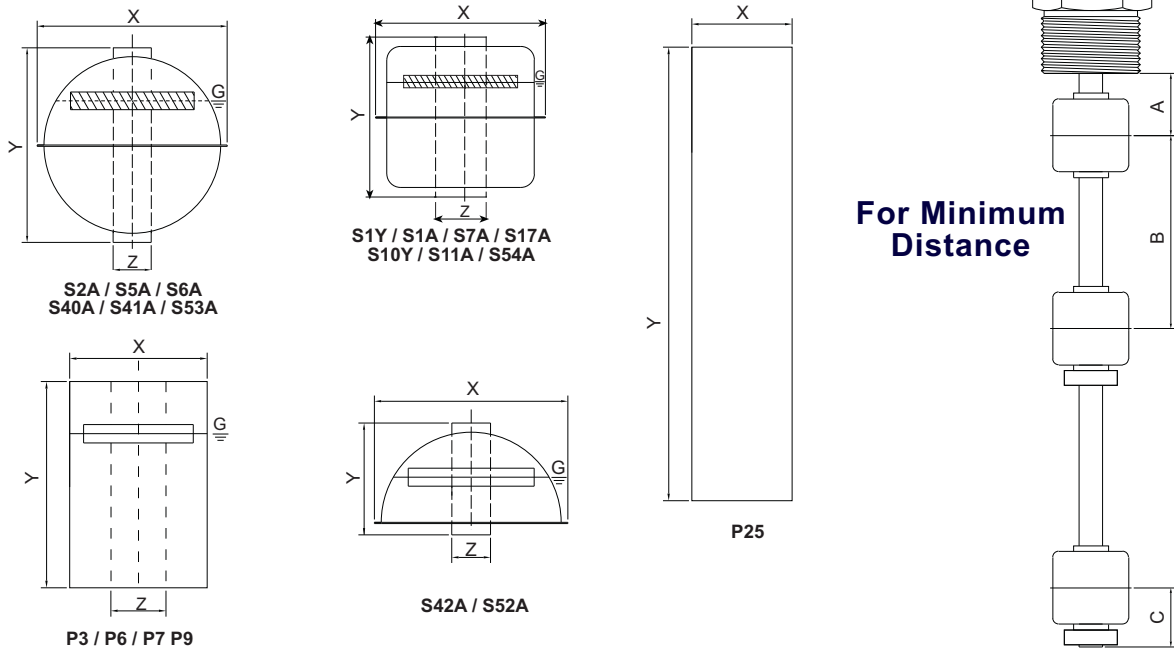
Level Control Device :

Power Supply	220 VAC , 2.8 VA
Output	2 pcs. 5A / 250 VAC Relay (Start/Stop)
Working Temperature	(-) 20 °C... (+) 70 °C
Dimension	72 mm x 72 mm
Input	Contact information , coming from ELS



SK P1 / SK P2

Float :



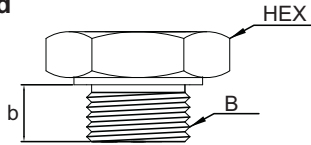
Order Code	Type	Material	X	Y	Z	Pipe Dia.	Max. Pressure	Max. Temp.	Density	A	B	C
001	S1Y	304 St. St.	28	28	9.5	8	10	150	0.80	25	50	25
101	S1A	316 St. St.	28	28	9.5	8	10	150	0.80	25	50	25
006	S10Y	304 St. St.	25,4	24,5	9.5	8	10	110	0,82	22	45	22
110	S11A	316L St. St.	28,6	28	9.5	8	15	200	0,70	26	52	26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

All dimensions are stated as mm.

Mechanical Connections:

Thread

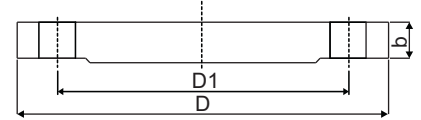


(ISO228-1)

Order Code	Dimension B	AA (mm)	Thread 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

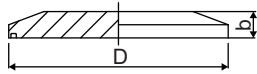
Order Code	(ISO1092-1) PN 16	D (mm)	D1 (mm)	b (mm)
103	DN 25	165	85	16
104	DN 32	140	100	16
106	DN 50	165	125	18
108	DN 80	200	160	20
109	DN100	220	180	20



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

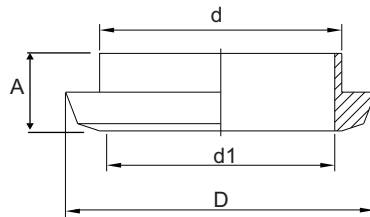
Order Code	(ANSI B16.5) 150 LBS	D (mm)	D1 (mm)	b (mm)
606	DN 50	152,4	121	19
607	DN 65	177,8	139,7	22,2
608	DN 80	190,5	152,4	23,8
609	DN 100	228,6	157,2	23,8

Clamp



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

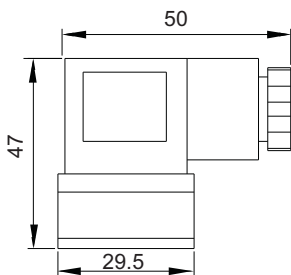
Dairy



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	DN1 00	DN 100	121	114	20

Electrical Connection Type:

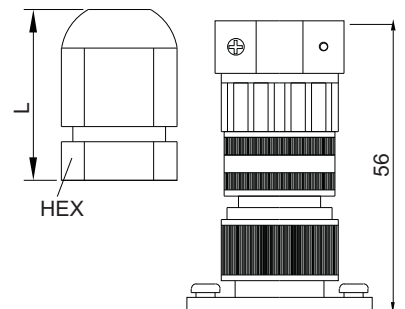
P01 / P03 / P04



K01 / K02 / K03

Order Code	Material	Protection Class	HEX	L
01	Metal	PG7	14AA	22
02	Metal	PG9	17AA	22
03	Metal	PG11	20AA	25
24	Plastic	PG13.5	24AA	31
05	Metal-Ex 1/2"NPT	IP66/68	22AA	25
		CESI		
		03ATEX	305X	
06	Metal	R 1/2"	22AA	21

ML-2 / ML-5

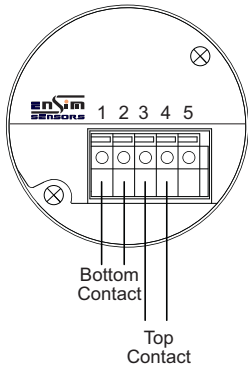


All dimensions are stated as mm.

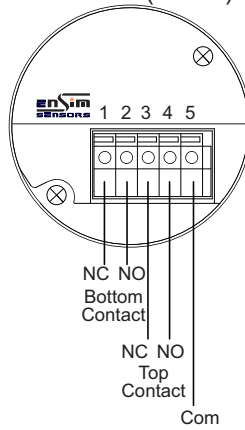
Electrical Connection Type:

B10p, B10x , B101x Housing

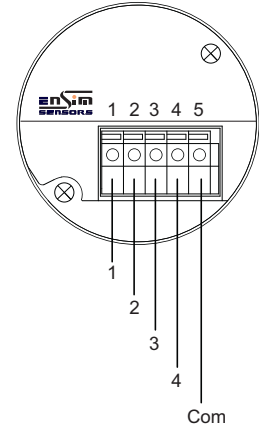
Two pieces independent contact
NO or NC



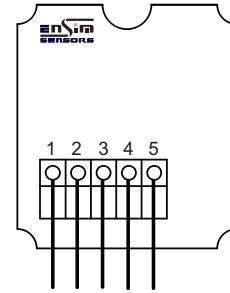
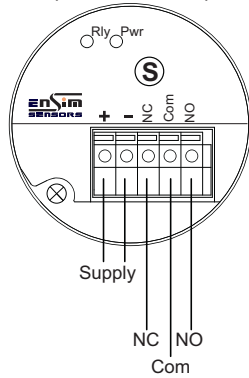
Two pieces double contact
NO / NC (SPDT)



Four pieces contact
NO or NC



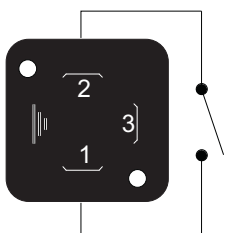
Liquid Level Contact
(12 / 24 VDC)



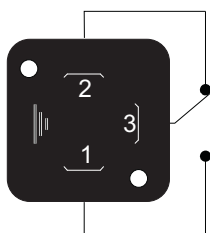
**B035, P52, P65
Housing**

Note: RLY LED has been designed to turn off the pump is running.

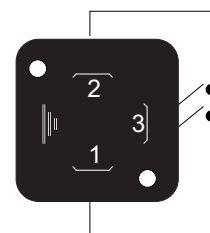
ISO 4400 (DIN 43650A) Socket P01 , P03 , P04



Single Contact
NO

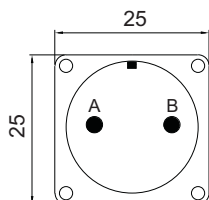


Single Contact
NO / NC (SPDT)



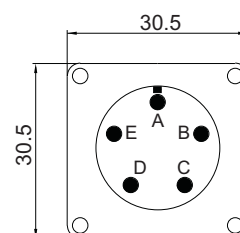
Two pieces single contact
NO

**ML-2 Military Type
(CA3101A)**



Single Contact
NO

ML-5 Military Type



Four Contacts
NO

A: 1 Contact
B: 2 Contact
C: 3 Contact
D: 4 Contact
E: Common

Electrical Connection Type:

PG Socket or Cable

K01 , K02, K03

PVC Cable (105 °C)

PVC Cable (105 °C)

PVC Cable (105 °C)

Black
Blue

Brown - Top Contact
Black - Common
Blue - Bottom Contact

Brown - NC
Black - Common
Blue - NO



Single contact
NO or NC

Two pieces single contact
NO or NC

Single contact
NO / NC (SPDT)

Silicon Cable (200 °C)

Silicon Cable (200 °C)

PTFE Cable (230 °C)

Brown
Blue

Brown - NO
Yellow - Common
Blue - NC

Red
White



Single contact
NO or NC

Two pieces single contact
NO or NC

Single contact
NO or NC

PVC Cable (105 °C)

PVC Cable (105 °C)

PVC Cable (105 °C)

Green
Yellow
Brown
White

> Top Contact
> Bottom Contact

Yellow - Top Contact
Green - Medium Contact
White - Bottom Contact
Brown - Common

Blue - NC
Yellow - NO
Red - Common
Green - NC
White - NO
Brown - Common

> Top Contact
> Bottom Contact



Two pieces independent contact
NO or NC

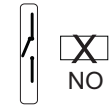
Three pieces contact
NO or NC

Two pieces independent contact
NO / NC (SPDT)

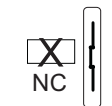
Sample application :



EMPTYING



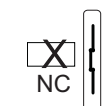
Start



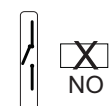
Stop



FILLING



Stop



Start

Order Form : Please consider sample models when coding

1 MODEL

Standart Version	ELS	ELSp (For Hydraulic Tanks).....	ELSp
ELSy (For Yacht Industry).....	ELSy	ELSm (For Machinery Manufacturing).....	ELSm

2 CERTIFICATE

None.....	0	(EN10204-3-1) Material Certification.....	1
-----------	---	---	---

3 HOUSING

None.....	000	Stainless Steel Housing , B101x.....	102
Plastic Housing , B10p	050	PC Grey , P52.....	200
Plastic Housing , B20p	016	PC Grey , P65.....	201
Plastic Housing , B038	039	Special.....	x
Aluminium Housing , B10x	333		
Aluminium Housing , B20x	378		

4 ELECTRICAL CONNECTION

Terminal (For Housing Models).....	00	M12- 2 Pins.....	70
Polyamide Large Socket P01	50	M12- 5 Pins.....	71
Polyamide Small Socket P02	51	M12- 8 Pins.....	72
Polyamide Large Lighted Socket P03	52	PVC Cable (Max .60 °C).....	80
Military Socket ML-2, 2 Pins	60	PVC Cable (Max. 105 °C).....	81
Military Socket ML-5, 5 Pins	61	Silicon Cable (Max. 200 °C).....	82
		PTFE Cable (Max. 230 °C).....	83
		Special Cable.....	x
		Special Socket.....	x

5 CONNECTION

With Pipe- Without Thread.....	000	1/8" NPT.....	051
Thread 1/8"BSP.....	001	1/4" NPT.....	052
Thread 1/4"BSP.....	002	3/8" NPT.....	053
Thread 3/8" BSP.....	003	1/2" NPT.....	054
Thread 1/2" BSP.....	004	3/4" NPT.....	055
Thread 3/4" BSP.....	005	1" NPT.....	056
Thread 1" BSP.....	006	1 1/4" NPT.....	057
Thread 1 1/4" BSP.....	007	1 1/2" NPT.....	058
Thread 1 1/2" BSP.....	008	2" NPT.....	059
Thread 2" BSP.....	009		
Thread 1/2" BSP (Moving Type).....	013	DN 25 - PN16 Flanged.....	103
		DN 32 - PN16 Flanged.....	104
Thread M10x1 Straight Type.....	081	DN 50 - PN16 Flanged.....	105
		DN 80 - PN16 Flanged.....	108
Thread 1/8" BSP Elbow Type.....	091	DN 100 - PN16 Flanged.....	109
Thread M10 x 1 Elbow Type.....	092	Special.....	x
Thread 3/8" BSP Elbow Type.....	093		
Thread 1/2" BSP Elbow Type	094		

Note: Refer to the table for others.

6 CONNECTION MATERIAL

304 Stainless Steel	01	PVC.....	20
316 Stainless Steel.....	02	Delrin.....	22
Aluminium (with nut for ELSp)	07	PTFE.....	25
		Special.....	x

7 PIPE SIZE

Ø 8 mm.....	08	Ø 12.7 mm.....	12
Ø 10 mm.....	10	Ø 13 mm.....	13
Ø 12 mm.....	11	Ø 15 mm.....	15
		Special.....	x

8 PIPE MATERIAL

304 Stainless Steel	01	Brass.....	08
316 Stainless Steel.....	02	PVC.....	20
		Special.....	x

9 STEM LENGHT

.... mm

Note: From the connection, including the thread.

10 FLOAT TYPE / NUMBER OF FLOAT

Select from table / Numbers....Pieces.....

Note: It must be selected according to the connection and radius.

11 CONTACT NUMBER / DISTANCE (mm)

Pieces / Length (mm).....

Note: From the connection, including the thread.

12 CONTACT TYPE

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

13 OPTIONEL

None.....	0	Test Rod.....	/ T
Pt100 Sensor.....	/ P	Float Housing.....	/ M
Liquid Level Relay.....	/ SSR	Special.....	x
Extarnal Tank (Dimensions should be stated)..	/ H		

SAMPLE

ELS 0055 - 00 - 005 - 01 - 13 - 01 - 1500 - 001 / 1 - 1 / 1400 - 8 / 0

ELS Level Switches, Plastic Housing, 3/4" BSP Male Thread, Connection and Pipe Material 304 Stainless Steel
L=1500 mm, S1Y Float , L1= NO / NC Reed Relay Output