

FLOAT LEVEL SWITCH REED LSR Series



DESCRIPTION

The level switch LSR Series consists in one or more reed contact inserted in a stainless steel tube. On the outside a float containing a magnet acts on the reed contact when the liquid level reaches the switching point.

The instrument can be top or side mounted on the tank or it can be supplied inside a chamber.

FEATURES

- Complete production control fully integrated inside the company and highly competent local suppliers.
- Completely customizable on client's needs thanks to the support of our technical and sales departments.
- Over 60 years company experience with instruments installed in the entire world.
- Long working life ensured by high quality materials.
- Easy installation due to the wide variety of process connections.
- Suitable for mounting in hazardous areas.

TECHNICAL SPECIFICATIONS

- Fixed contact position
- Suitable for fluid density > 600 kg/m³ and lower values on request
- Up to six switching points
- Float and rod in SS 316 / 316L dual grade
- Rod length up to 6 m and over on request
- Ambient temperature range -40 / +85 °C
- Suitable up to 120 °C and 80 barg

PROCESS CONNECTIONS

The level switch LSR Series in his standard version is top mounted on the tank with the following process connections:

- Flanged
 - ANSI B16.5
 - EN 1092/1
- Threaded
 - NPT-M
 - GAS-M

On request a curved rod version is available for side mounting





CHAMBER VERSION - CHA

On request the level switch LSR Series can be supplied inside of a chamber Officine Orobiche CHA Series for an external mounting.

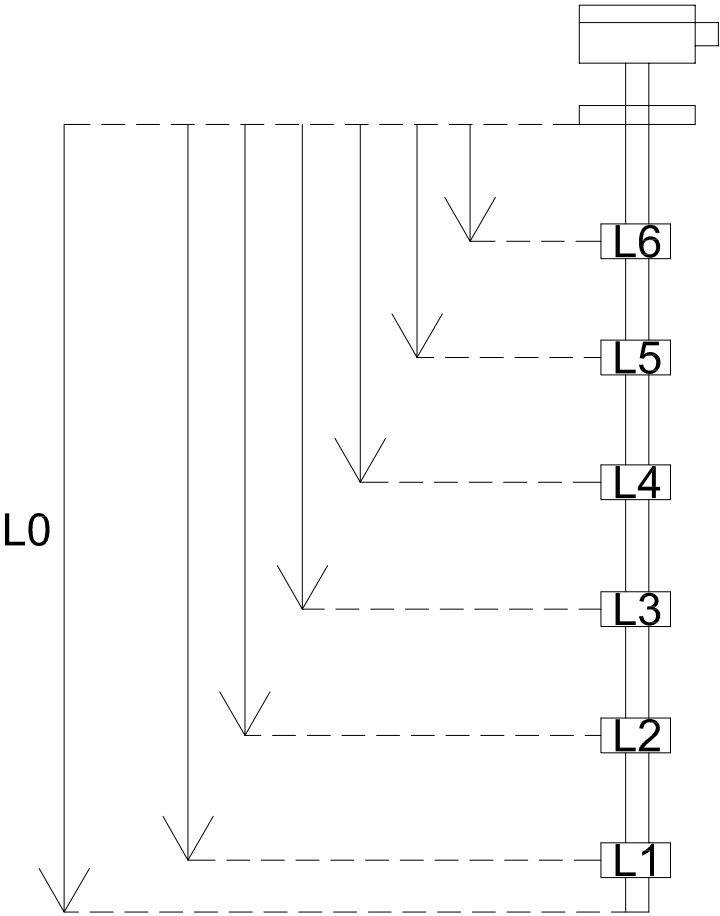
- Body in carbon steel or SS 316 and other materials on request
- Socket or full-penetrations welds options
- Flanged, threaded or welded connections with drain and vent options
- External Side-Side or Side-Bottom mounting
- Standard Officine Orobiche paintings or compliant to customer specifications.

For more information see the Officine Orobiche CHA Series chamber catalogue.

SWITCHING POINTS

The level switch LSR Series can be provided with up to six switching points, each with its own float.

The standard minimum distance between each switching point is [Float Diameter + 25] mm, but it can reduced on request.



FLOATS

The float choice is based on the fluid density and on the connection dimension.

CODE	MATERIAL	DIMENSIONS
G1 ¹	SS 316	28 x 28 mm
G2	SS 316	40 x 35 mm
G3	SS 316	52 x 52 mm
G8 ²	NBR for corrosive fluids	40 x 40 mm
G9 ³	SS 316	52 x 52 mm

- 1- Max 2 intervention points for SPST contact or 1 intervention point for SPDT contact
2- Version for corrosive fluids or very high pressure
3- High pressure version, up to 64 bar



CONTACTS

CODE	CONTACT	RATING
1	SPST	1000V, 1A, 100W
2	SPDT	175V, 0.5A, 10W

All tension and current combinations should not exceed the power value

HOUSINGS

The instrument is available with the following housing materials

- Die-cast painted aluminium
- Stainless steel (on request)



ELECTRICAL CONNECTIONS

- 1/2" NPT F
- M20 x 1.5 ISO
- 1/2" GAS F (on request)
- Double electrical connection option
- Cable gland option
- Adapters on request



APPROVALS

On request the following approvals are available:

- NACE MR-0175 and MR-0103
- ATEX intrinsically safe or explosion proof: II 2G Ex ia IIC T6 Gb / II 2G Ex db IIC T6 Gb / II 2D Ex tb IIIC T85°C Db
- EAC 1 Ex d IIC T6 / Ex tb IIIC T85°C Db
- IECEx Ex db IIC T6 Gb / Ex tb IIIC T85°C Db
- IEC 61508 SIL 2

MODEL CODE AND SPARES PARTS

LSR	A	-	BB	-	L	CCCC	-	DD	-	EE	-	F	-	G	-	H
-----	---	---	----	---	---	------	---	----	---	----	---	---	---	---	---	---

A	Number of switching points (from 1 to 6)		
BB	Rod material	JL	SS 316L
CCCC	Rod length in mm (L0 in drawing)		
DD	Process connection	20	3/4" GAS M
		25	1" GAS M
		26	1" NPT M
		30	1 1/4" GAS M
		40	1 1/2" GAS M
		50	2" GAS M
		51	2" NPT M
		FS	Flanged
E	Floats, see table		
F	Contacts, see table		
G	Housing type	S	WP IP 66
		E	Explosion-proof
H	Electrical connection	1	ISO M20 x 1.5
		11	N°2 ISO M20 x 1.5
		2	1/2" NPT-F
		22	N°2 1/2" NPT-F
XX	Any variation from standard		

Our company database contains information about the instruments manufactured in 60 years, to request spare parts for an installed instrument or a complete instrument state the F number written in the top-right of the label:



Our technical and commercial departments are available to discuss any variation or customization not mentioned in this catalogue.



Officine Orobiche S.r.l.

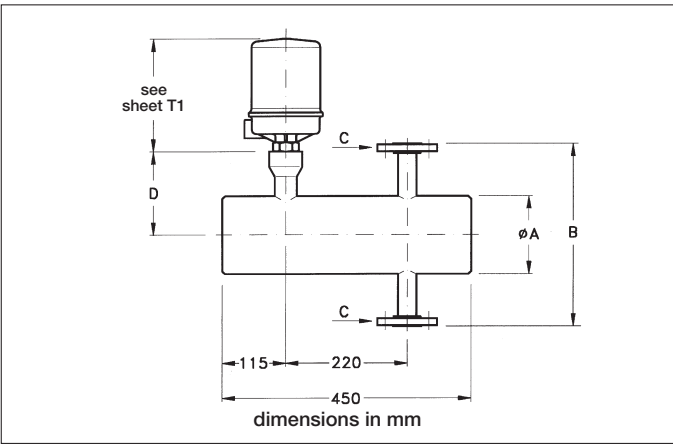
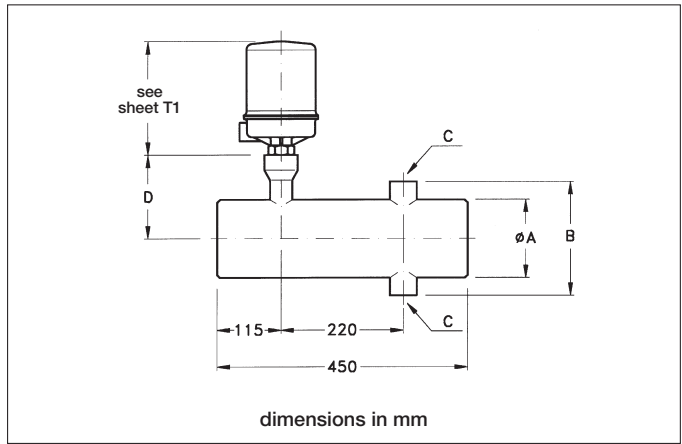
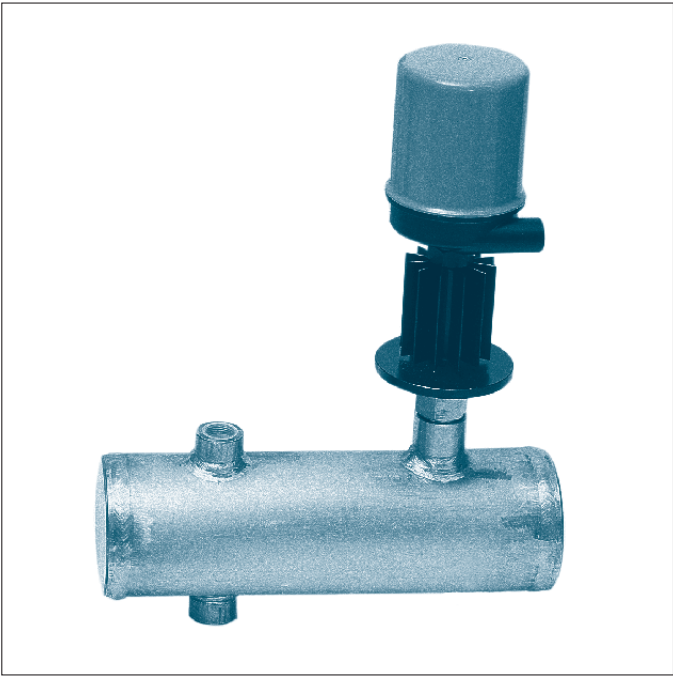
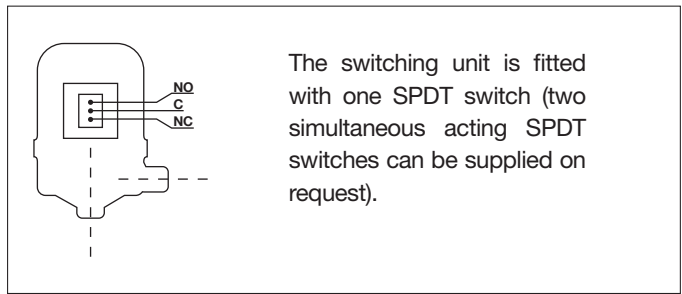
Via Paglia, 22 - 24050 Zanica (Bergamo) - Italy
Tel. +39 035 4530 211



www.officineorobiche.it
info@officineorobiche.it

80 SERIES LEVEL SWITCHES

Balanced float level switch with non-inspectable body for external side mounting with one switching unit. For pressure up to 150 Bar, for temperatures up to 480°C max. and for fluids with a specific gravity of 0.6 kg/dm³ min. (0.4 kg/dm³ for the 84 model). Fixed differential of switch, with SP.GR. 1 kg/dm³, 25 mm. This means that if the change-over takes place by increased (or decreased) contact level, the following change-over will take place when the level falls (or rises) by 25 mm. Set point accuracy ± 5 mm.



NOTE. The set point is positioned at the middle of the connections.

MODEL	MIN. SPECIFIC GRAVITY kg/dm ³	D mm	THREADED CONNECTIONS			FLANGED CONNECTIONS		
			B CONNECTIONS DISTANCE mm	A mm	WEIGHT ~ kg	B CONNECTIONS DISTANCE mm	A mm	WEIGHT ~ kg
81	0,6	155	206	141	17	330	141	20
82	0,6	155	206	141	21	330	141	24
83	0,6	155	206	141	26	330	141	30
84	0,4	165	233	168	22	357	168	25

Standard “C” connections: Threading 1” NPT-F; Flange UNI PNDN 25/1” ANSI.....RF; 1” S.W.
 On request, non-standard threads and flanges can be supplied.
 For temperatures exceeding 135°C or below -10°C, fins with the “R” code are fitted on all versions; temps. of 135-250°C, **R1**; 250-500°C, **R4** ; -10 to 80°C **R3**.



WORKING CONDITIONS

MODEL		81		82		83		84	
STD “C” FLANGE		1” ANSI - NPTF - SW; DN25 UNI rating suitable for the maximum operating pressure							
VERSION		A	J	A	J	A	J	A	J
Temperatures	100° C	98	95	145	145	197	174	88	88
	200° C	98	80	145	122	197	166	88	74
	250° C	98	75	145	115	197	155	88	69
	300° C	98	71	145	109	197	148	88	65
	350° C	96	68	142	104	193	141	86	63
	400° C	74	68	110	101	149	137	66	61
	425° C	63	65	93	100	125	136	56	60
	450° C	-	64	-	99	-	134	-	59
	480° C	-	64	-	98	-	133	-	59
Max pressure in bar									

MATERIALS

CODE FOR:	Materials	Carbon steel	AISI 316
	Body	A	J
	Float	-	2

SWITCHES

Type	Mercury switch	Dry microswitch					Pneumatic switch*
Load raating	220 V a. c. 10 A 110 V d. c. 1,5 A	250 V a. c. 10 A 125 V d. c. 0,5 A	125 V d. c. 10 A	250 V a. c. 10 A 125 V d. c. 0,5 A waterproof	125 V a. c. 1 A 28 V d. c. 1 A waterproof with gold contacts	250 V a. c. 1A 24 V d.c. 3A sealed with inert gas	Output: 0 ÷ 40 psi max.
CODE	VD	M2	M3	M4	M6	M14	PNA (aluminium)

*Air inlet and output connection 1/4" NPT-F - No bleed type

ENCLOSURES

Type	Waterproof	Explosion-proof	The (WP) enclosures can be supplied whit gland or with a 3 or 7 pole connector as per MIL standards. The (EP) enclosures can be supplied whit explosion-proof gland. 1) CESI certificate N. 02-ATEX-126
Material	Aluminium	Aluminium	
Electrical Connection	1/2" NPT-F/GAS 3/4" NPT-F/GAS ISO M20X1.5	1/2" UNI 6125/NPT-F 3/4" UNI 6125/NPT-F ISO M20X1.5	
Protection degree	IP 66	ATEX II 2 G Ex d IIC T6 o T5 Gb ATEX II 1/2 D Ex ta/tb IIIC T85° o T100° C Da/Db IP 66	
CODE	WP	EP	

HOW TO ORDER

Example: 81 - A - 2 - M2 - WP - R1

- 81 model
- A body in carbon steel
- 2 float in S/steel AISI 316
- M2 dry micro. 250 V a.c. - 10 A
- WP waterproof enclosure
- R1 coolings fins (t 200° C); optional



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30 SERIES LEVEL SWITCHES

One-float level switch for top mounting with one or two switching units. For pressure up to 50 Bar, for temperatures up to 400°C max. and for fluids with a specific gravity of 0.6 kg/dm³ min. Minimum differential of each switch with SP.GR. of 1 kg/dm³, 30 mm. Set point accuracy: ± 5 mm.

30 series
The **30 series** is equipped with one switching unit fitted with one SPDT switch (two simultaneous acting SPDT switches can be supplied on request).

30 D series
The **30 D series** is equipped with two switching units (for separate actions) with one SPDT switch fitted on each unit.

30 series - differentials

Values in mm

30 D series - differentials

Values in mm

see sheet T1

C

F

E

ØD

Weight kg 12

In the following table is shown the maximum possible F length in relation to the type of standard float available and to the various specific gravity of the fluid to be checked.

FLOATS			MINIMUM SPECIFIC GRAVITY OF FLUID kg/dm ³											STD "C" Flange connection	
ø D	E		1.6	1.5	1.4	1.3	1.2	1.1	1	0.9	0.8	0.7	0.6	ANSI	UNI
*68	120	F (mm)	1300	1300	1300	1300	1000	700	380	-	-	-	-	3"	DN 80
94	90	F (mm)	1300	1300	1300	1300	1300	1100	910	-	-	-	-	4"	DN 100
94	140	F (mm)	1300	1300	1300	1300	1300	1300	1300	1300	1150	-	-	4"	DN 100
94	180	F (mm)	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	670	4"	DN 100

* Max. pressure rating 40 Bar.

For equipment with one switching unit and fins or double switching unit, the F length is to be reduced by 300 mm.
 For equipment with double switching unit and fins, the F length is to be reduced by 750 mm.
 For temperatures exceeding 135°C or below -10°C, fins with the "R" code are fitted on all versions;
 temps. of 135-250°C, R1; 250-400°C, R4 ; -10- 80°C R3
 On request, the threaded connection 2" NPT - M, 3" NPT - M and 3/4" GAS can be supplied.



WORKING CONDITIONS

MODEL		32			34			36		
STD "C" FLANGE		3"- 4" ANSI 150 RF UNI DN 80-100 PN 16			3"- 4" ANSI 300 RF UNI DN 80-100 PN 40			4" ANSI 600 RF UNI DN 100 PN 64		
VERSION		A	I	J	A	I	J	A	I	J
Temperatures	100° C	17	15	16	35	30	31	46	40	42
	150° C	15	13	14	34	27	29	45	36	38
	200° C	13	12	13	33	25	27	43	32	35
	250° C	11	11	11	32	23	25	41	30	33
	300° C	10	10	10	29	22	24	38	28	31
	350° C	8	8	8	28	21	23	36	28	30
	400° C	6	6	6	27	21	22	34	27	29
BODY RATING		ANSI 150			PN 40			ANSI 300		

Max pressure in bar

MATERIALS

CODE FOR:	Materials	Carbon steel	AISI 304	AISI 316
	Body	A	I	J
	Float	-	-	2

On request, versions in plastic (PVC - MOPLen - PVDF) can be supplied.

SWITCHES

Type	Mercury switch	Dry microswitch					Pneumatic switch*
Load rating	220 V a. c. 10 A 110 V d. c. 1,5 A	250 V a. c. 10 A 125 V d. c. 0,5 A	125 V d. c. 10 A	250 V a. c. 10 A 125 V d. c. 0,5 A waterproof	125 V a. c. 1 A 28 V d. c. 1 A waterproof with gold contacts	250 V a. c. 1A 24 V d.c. 3A sealed with inert gas	Output: 0 ÷ 40 psi max.
CODE	VD	M2	M3	M4	M6	M14	PNA (aluminium)

*Air inlet and output connection 1/4" NPT-F - No bleed type

ENCLOSURES

Type	Waterproof	Explosion-proof	The (WP) enclosures can be supplied whit gland or with a 3 or 7 pole connector as per MIL standards. The (EP) enclosures can be supplied whit explosion-proof gland. 1) CESI certificate N. 02-ATEX-126
Material	Aluminium	Aluminium	
Connection	1/2" NPT-F/GAS 3/4" NPT-F/GAS ISO M20x1.5	1/2" UNI 6125/NPT-F 3/4" UNI 6125/NPT-F ISO M20x1.5	
Protection degree	IP 66	ATEX II 2 G Ex d IIC T6 o T5 Gb ATEX II 1/2 D Ex ta/tb IIIC T85° o T100° C Da/Db IP 66	
CODE	WP	EP	

HOW TO ORDER

Example: 32 - A - 2 - M2 - WP - R1

- 32 model
- A body in carbon steel
- 2 float in S/steel AISI 316
- M2 dry switch. 250 V a.c. - 10 A
- WP waterproof enclosure
- R1 cooling fins (t 200° C); optional

The following data are required: type of fluid, specific gravity, operating temperature and pressure.



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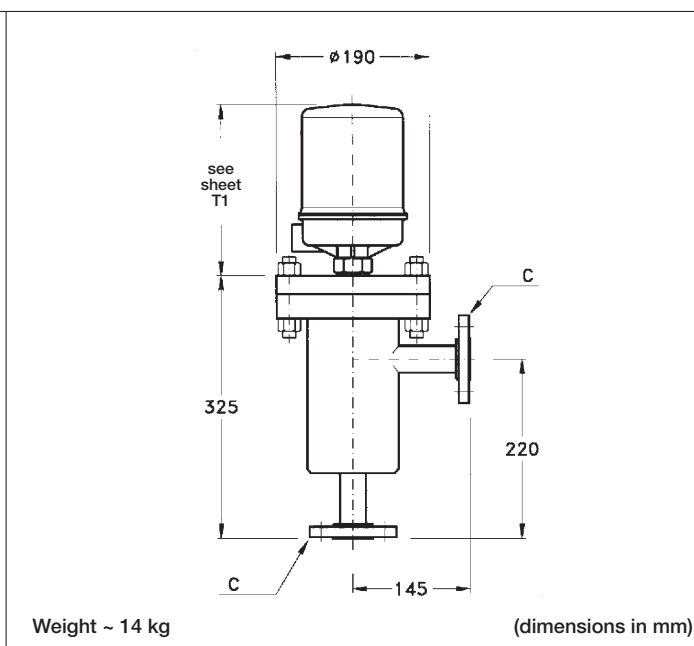
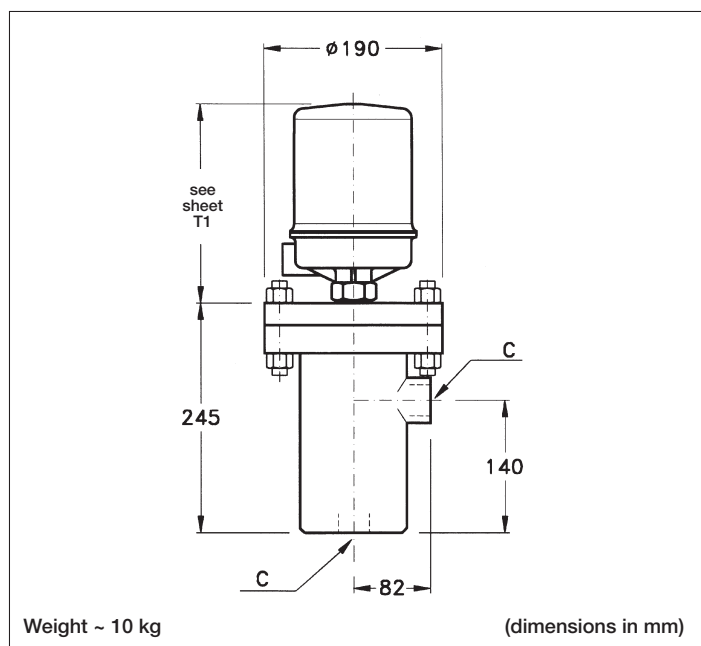
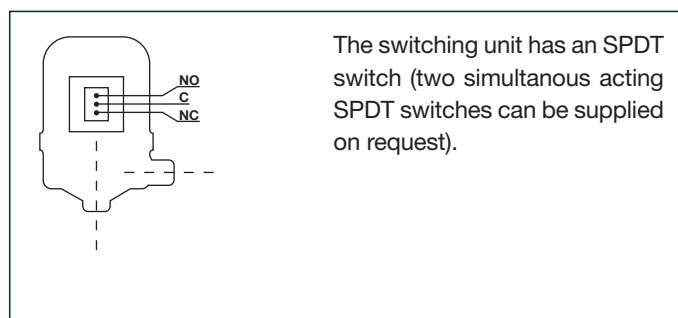
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Information subject to change without prior warning

50 SERIES LEVEL SWITCHES

One-float level switch for external side mounting, with one switching unit. For pressure up to 50 Bar max., temperatures between -10°C and 135°C for fluids with specific gravity of 0.85 kg/dm³ min. (1.0 kg/dm³ for the 56 model). Fixed differential, with SP.GR. 1 kg/dm³, 30 mm. This means that the change-over takes place by increased (or decreased) contact level, the following change-over will take place when the level falls (or rises) by 30 mm. Set point accuracy ±5 mm.



NOTE. The set points are supplied on request, since these change according to specific gravity and working conditions.

Standard "C" connectors: Threading 1" NPT-F; Flange UNI PNDN 25/1" ANSI.....RF; 1" S.W.
On request, non-standard threads and flanges can be supplied.

On request, special versions can be supplied for working at temperatures below -10°C and over 135°C.

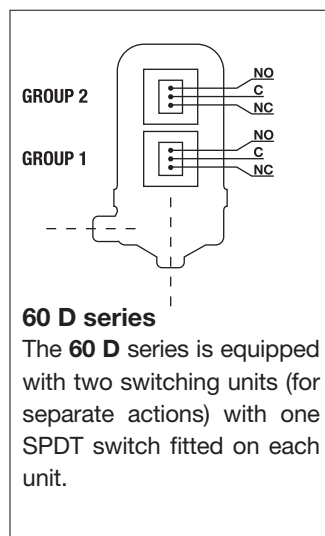
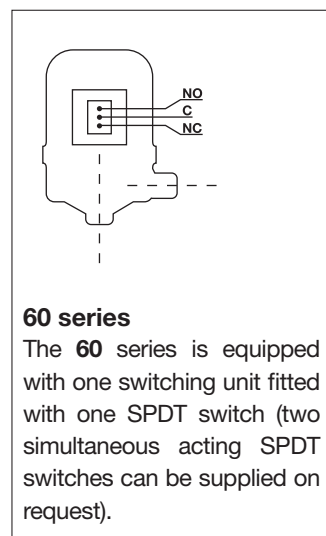


WORKING CONDITIONS

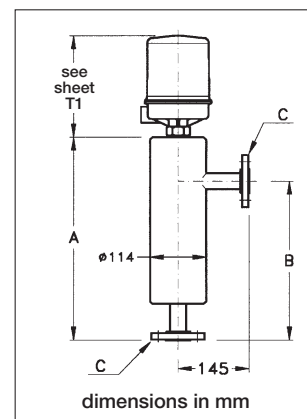
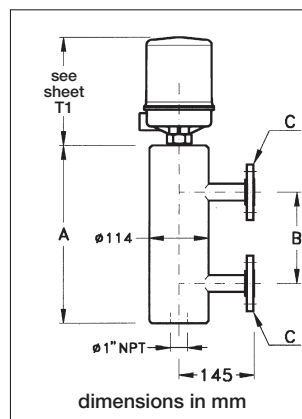
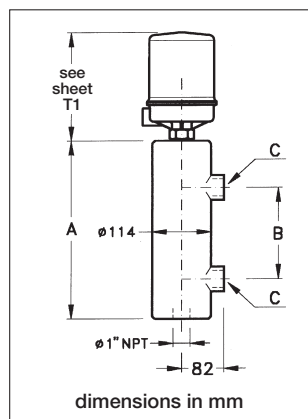
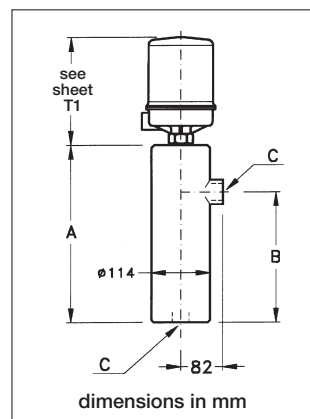
MODEL		52			56			
STD “C” FLANGE		1” ANSI 150 RF UNI DN 25 PN 16			1” ANSI 600 RF UNI DN 25 PN 64			
VERSION		A	I	J	A	I	J	Max pressure in bar
Temperatures	38° C	20	19	19	52	50	50	
	100° C	17	15	16	46	40	42	
	135° C	16	14	15	46	37	39	
	BODY RATING	ANSI 150			ANSI 300			

60 SERIES LEVEL SWITCHES

One-float level switch with non-inspectable body for external side mounting with one or two switching units. For pressure up to 50 Bar, for temperatures up to 400°C max. and for fluids with a specific gravity of 0,58 kg/dm³ min. for the 62 model; 0.7 kg/dm³ for the 64 and 66 models; 0.65 kg/dm³ for the 62D model and 0.8 kg/dm³ for the 64D and 66D models. Minimum differential of each switch with SP.GR. of 1 kg/dm³, 30 mm. Set point accuracy:± 5 mm.



NOTE. The set points are supplied on request, since these change according to specific gravity and working conditions.



CONNECTIONS		THREADED		FLANGED		
POSITION	B CONNECTIONS DISTANCE mm	A mm	WEIGHT ~ kg	B CONNECTIONS DISTANCE mm	A mm	WEIGHT ~ kg
SIDE/BOTTOM	270 (325 ¹)	360 (420 ¹)	12 (14)	330 (400 ¹)	425 (495 ¹)	16 (18)
SIDE/SIDE	178 ⁽²⁾	360	12	178 ⁽²⁾	360	16
SIDE/SIDE	292	475	14	292	475	17
SIDE/SIDE	330	515	15	330	515	18
SIDE/SIDE	356	540	18	356	540	21

1) min. dimensions for 60D series with two switching units 2) the 66 D model is not available with 178 mm S/S connections

Standard "C" connections: Threading 1" NPT-F; Flange UNI PNDN 25/1" ANSI.....RF; 1" S.W.

On request, non-standard threads and flanges can be supplied.

For temperatures exceeding 135°C or below -10°C, fins with the "R" code are fitted on all versions; temps. of 135-250°C, **R1**; 250-400°C, **R4**; -10 to 80°C, **R3**.

A version with body ø 6" is available for special applications (3060 series)



WORKING CONDITIONS

MODEL		62			64			66		
STD "C" FLANGE		1" ANSI 150 RF UNI DN 25 PN 16			1" ANSI 300 RF UNI DN 25 PN 40			1" ANSI 600 RF UNI DN 25 PN 64		
VERSION		A	I	J	A	I	J	A	I	J
Temperatures	100° C	17	15	16	35	30	31	46	40	42
	150° C	15	13	14	34	27	29	45	36	38
	200° C	13	12	13	33	25	27	43	32	35
	250° C	11	11	11	32	23	25	41	30	33
	300° C	10	10	10	29	22	24	38	28	31
	350° C	8	8	8	28	21	23	36	28	30
	400° C	6	6	6	27	21	22	34	27	29
BODY RATING		ANSI 150			PN 40			ANSI 300		

Max pressure in bar

MATERIALS

CODE FOR:	Materials	Carbon steel	AISI 304	AISI 316
	Body	A	I	J
	Float	-	-	2

On request, versions in plastic (PVC - MOLEN - PVDF) can be supplied.

SWITCHES

Type	Mercury switch	Dry microswitch					Pneumatic switch*
Load rating	220 V a. c. 10 A 110 V d. c. 1,5 A	250 V a. c. 10 A 125 V d. c. 0,5 A	125 V d. c. 10 A	250 V a. c. 10 A 125 V d. c. 0,5 A waterproof	125 V a. c. 1 A 28 V d. c. 1 A waterproof with gold contacts	250 V a. a. 1A 24 V d.c. 3A sealed with inert gas	Output: 0 ÷ 40 psi max.
CODE	VD	M2	M3	M4	M6	M14	PNA (aluminium)

*Air inlet and output connection 1/4" NPT-F - No bleed type

ENCLOSURES

Type	Waterproof	Explosion-proof	The (WP) enclosures can be supplied whit gland or with a 3 or 7 pole connector as per MIL standards. The (EP) enclosures can be supplied whit explosion-proof gland. 1) CESI certificate N. 02-ATEX-126
Material	Aluminium	Aluminium	
Electrical Connection	1/2" NPT-F/GAS 3/4" NPT-F/GAS ISO M20X1.5	1/2" UNI 6125/NPT-F 3/4" UNI 6125/NPT-F ISO M20X1.5	
Protection degree	IP 66	ATEX II 2 G Ex d IIC T6 o T5 Gb ATEX II 1/2 D Ex ta/tb IIIC T85° o T100° C Da/Db IP 66	
CODE	WP	EP	

HOW TO ORDER

Example: 62 - A - 2 - M2 - WP

- 62
- model
- A
- body in carbon steel
- 2
- float in S/steel AISI 316
- M2
- dry microswitch 250 V a.c. - 10 A
- WP
- waterproof enclosure
- R1
- coolings fins (t 200° C); optional

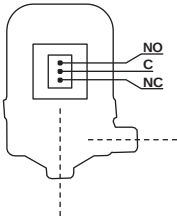
The following data are required: type of fluid, specific gravity, operating temperature and pressure.



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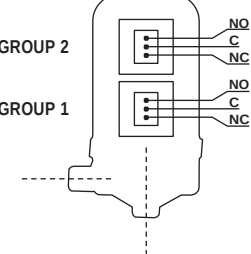
70 SERIES LEVEL SWITCHES

One-float level switch with inspectable body for external side mounting with one or two switching units. For pressure up to 50 Bar, for temperatures up to 400°C max. and for fluids with a specific gravity of 0,58 kg/dm³ min. for the 72 model; 0.7 kg/dm³ for the 74 and 76 models; 0.65 kg/dm³ for the 72D model and 0.8 kg/dm³ for the 74D and 76D models. Minimum differential of each switch with SP.GR. of 1 kg/dm3 , 30 mm. Set point accuracy: ± 5 mm.



70 series

The **70** series is equipped with one switching unit fi with one SPDT switch (two simultaneous acting SPDT switches can be supplied on request).

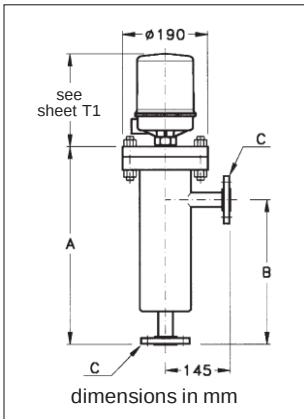
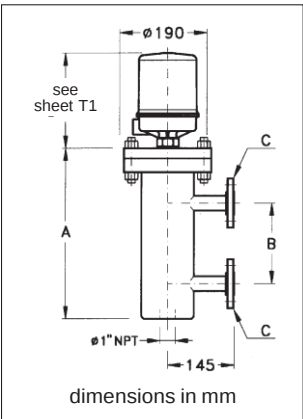
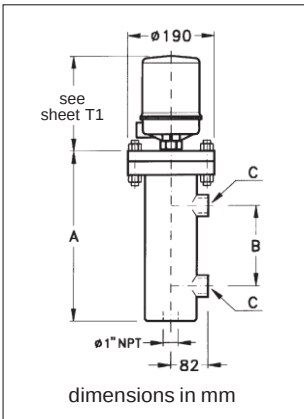
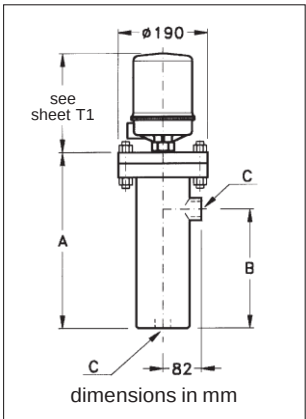


70 D series

The **70 D** series is equipped with two switching units (for separate actions) with one SPDT switch fi on each unit.



NOTE. The set points are supplied on request, since these change according to the specific gravity and working conditions.



CONNECTIONS	THREADED			FLANGED		
POSITION	B CONNECTIONS DISTANCE mm	A mm	WEIGHT ~ kg	B CONNECTIONS DISTANCE mm	A mm	WEIGHT ~ kg
SIDE/BOTTOM	255 (325 ¹⁾)	375 (445 ¹⁾)	20 (22)	330 (400 ¹⁾)	450 (520 ¹⁾)	23 (25)
SIDE/SIDE	178 ⁽¹⁾	375	20	178 ⁽²⁾	375	23
SIDE/SIDE	292	490	23	292	490	25
SIDE/SIDE	330	530	24	330	530	27
SIDE/SIDE	356	555	25	356	555	28

1) min. dimensions for 70D series with two switching units
2) the 76 D model is not available with 178 mm S/S connections

Standard “C” connections: Threading 1” NPT-F; Flange UNI PNDN 25/1” ANSI.....RF; 1” S.W.
On request, non-standard threads and flanges can be supplied.
For temperatures exceeding 135°C or below -10°C, fins with the “R” code are fitted on all versions; temps. of 135-250°C, **R1**;
250-400°C, **R4**; -10 to -80°C, **R3**.
A version with body ø 6” is available for special applications (3070 series)



WORKING CONDITIONS

MODEL		72			74			76 (1)		
STD "C" FLANGE		1" ANSI 150 RF UNI DN 25 PN 16			1" ANSI 300 RF UNI DN 25 PN 40			1" ANSI 600 RF UNI DN 25 PN 64		
VERSION		A	I	J	A	I	J	A	I	J
Temperatures	100° C	17	15	16	35	30	31	46	40	42
	150° C	15	13	14	34	27	29	45	36	38
	200° C	13	12	13	33	25	27	43	32	35
	250° C	11	11	11	32	23	25	41	30	33
	300° C	10	10	10	29	22	24	38	28	31
	350° C	8	8	8	28	21	23	36	28	30
	400° C	6	6	6	27	21	22	34	27	29
BODY RATING		ANSI 150			PN 40			ANSI 300		

On request, a special version with ANSI 600 body and connections rating is available, but with max. test pressure of the float at 120 Bar.

MATERIALS

CODE FOR:	Materials	Carbon steel	AISI 304	AISI 316
	Body	A	I	J
	Float	-	-	2

On request, versions in plastic (PVC - MOPleN - PVDF) can be supplied.

SWITCHES

Type	Mercury switch	Dry microswitch					Pneumatic switch*
Load rating	220 V a. c. 10 A 110 V d. c. 1,5 A	250 V a. c. 10 A 125 V d. c. 0,5 A	125 V d. c. 10 A	250 V a. c. 10 A 125 V d. c. 0,5 A waterproof	125 V a. c. 1 A 28 V d. c. 1 A waterproof with gold contacts	250 V a. a. 1A 24 V d.c. 3A sealed with inert gas	Output: 0 ÷ 40 psi max.
CODE	VD	M2	M3	M4	M6	M14	PNA (aluminium)

*Air inlet and output connection 1/4" NPT-F - No bleed type

ENCLOSURES

Type	Waterproof	Explosion-proof	The (WP) enclosures can be supplied whit gland or with a 3 or 7 pole connector as per MII standards. The (eP) enclosures can be supplied whit explosion-proof gland. 1) CeSI certifi N. 02-ATeX-126
Material	Aluminium	Aluminium	
Electrical Connection	1/2" NPT-F/GAS 3/4" NPT-F/GAS ISO M20X1.5	1/2" UNI 6125/NPT-F 3/4" UNI 6125/NPT-F ISO M20X1.5	
Protection degree	IP 66	ATEX II 2 G Ex d IIC T6 o T5 Gb ATEX II 1/2 D Ex ta/tb IIIC T85° o T100° C Da/Db IP 66	
CODE	WP	EP	

HOW TO ORDER

example: 72 - A - 2 - M2 - WP - R1

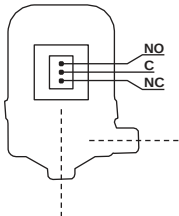
- 72 model
- A body in carbon steel
- 2 float in S/ steel AISI 316
- M2 dry micro. 250 v a.c. - 10 A
- WP waterproof enclosure
- R1 coolings fins (t 200° C); optional

The following data are required: type of fluid, specific gravity, operating temperature and pressure.



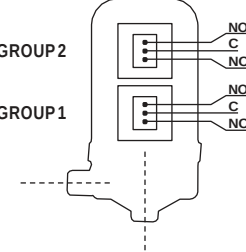
3070 SERIES LEVEL SWITCHES

One-float level switch, with inspectable body, for external side mounting with one or two switching units. For pressure up to 50 Bar, for temperatures up to 400°C max. and for fluids with a low specific gravity down to 0.35 kg/dm³. These instruments are suitable for interface service LIQ / LIQ. Minimum differential of each switch with SP.GR. of 1 kg/dm³ , 20 mm. Set point accuracy: ± 5 mm.



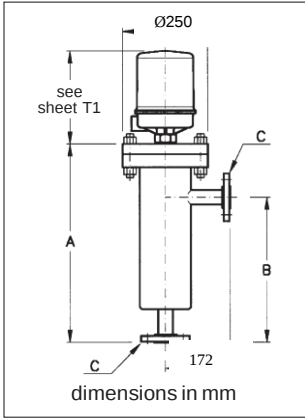
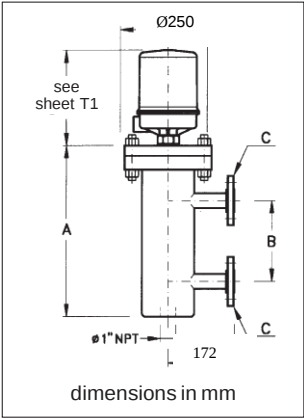
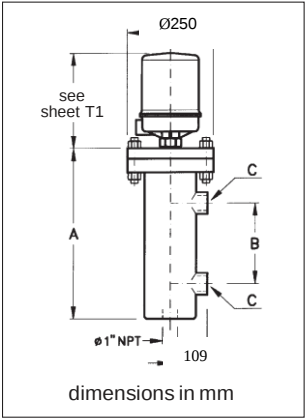
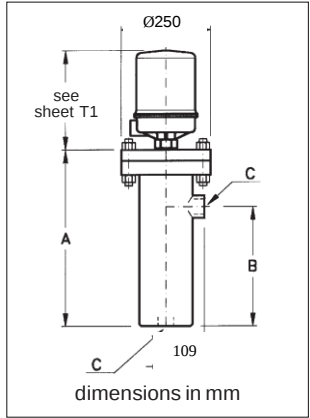
3070 series

The **3070** series is equipped with one switching unit fi with one SPDT switch (two simultaneous acting SPDT switches can be supplied on request).



3070 D series

The **3070 D** series is equipped with two switching units (for separate actions) with one SPDT switch fi on each unit.



CONNECTIONS	THREADED			FLANGED		
POSITION	B CONNECTIONS DISTANCE mm	A mm	WEIGHT ~ kg	B CONNECTIONS DISTANCE mm	A mm	WEIGHT ~ kg
SIDE/BOTTOM	255	385	47	330	460	50
SIDE/SIDE	178	385	45	178	385	48
SIDE/SIDE	292	500	47	292	500	50
SIDE/SIDE	330	540	50	330	540	53
SIDE/SIDE	356	565	51	356	565	54

Standard “C” connections: Threading 1” NPT-F; Flange UNI PNDN 25/1” ANSI.....RF; 1” S.W.
 On request, non-standard threads and flanges can be supplied.
 For temperatures exceeding 135°C or below -10°C, fins with the “R” code are fitted on all versions; temps. of 135-250°C, **R1**; 250-400°C, **R4**; -10to 80°C, **R3**.



WORKING CONDITIONS

MODEL		3072			3074			3076		
STD "C" FLANGE		1" ANSI 150 RF UNI DN 25 PN 16			1" ANSI 300 RF UNI DN 25 PN 40			1" ANSI 600 RF UNI DN 25 PN 64		
VERSION		A	I	J	A	I	J	A	I	J
Temperatures	100° C	17	15	16	35	30	31	46	40	42
	150° C	15	13	14	34	27	29	45	36	38
	200° C	13	12	13	33	25	27	43	32	35
	250° C	11	11	11	32	23	25	41	30	33
	300° C	10	10	10	29	22	24	38	28	31
	350° C	8	8	8	28	21	23	36	28	30
	400° C	6	6	6	27	21	22	34	27	29
BODY RATING		ANSI 150			PN 40			ANSI 300		

Max pressure in bar

MATERIALS

CODE FOR:	Materials	Carbon steel	AISI 304	AISI 316
	Body	A	I	J
	Float	-	-	2

On request, versions in plastic (PvC - MOPlEN - PvDF) can be supplied.

SWITCHES

Type	Mercury switch	Drymicroswitch					Pneumatic switch*
Load rating	220 V a. c. 10 A 110 V d. c. 1,5 A	250 V a. c. 10 A 125 V d. c. 0,5 A	125 V d. c. 10 A	250 V a. c. 10 A 125 V d. c. 0,5 A waterproof	125 V a. c. 1 A 28 V d. c. 1 A waterproof with gold contacts	250 V a. a. 1A 24 V d.c. 3A sealed with inert gas	Output: 0 ÷ 40 psi max.
CODE	VD	M2	M3	M4	M6	M14	PNA (aluminium)

*Air inlet and output connection 1/4" NPT-F - No bleed type

ENCLOSURES

Type	Waterproof	Explosion-proof	The (WP) enclosures can be supplied whit gland or with a 3 or 7 pole connector as per Mil standards. The (eP) enclosures can be supplied whit explosion-proof gland. 1) CeSI 2ertify N. 02-AteX-126
Material	Aluminium	Aluminium	
Electrical Connection	1/2" NPT-F/GAS 3/4" NPT-F/GAS ISO M20X1.5	1/2" UNI 6125/NPT-F 3/4" UNI 6125/NPT-F ISO M20X1.5	
Protection degree	IP 66	ATEX II 2 G Ex d IIC T6 o T5 Gb ATEX II 1/2 D Ex ta/tb IIIC T85° o T100° C Da/Db IP 66	
CODE	WP	EP	

HOW TO ORDER

example: 3072 - A - 2 - M2 - WP - R1

- 3072
- model
- A
- body in carbon steel
- 2
- float in S/ steel AISI 316
- M2
- dry micro. 250 v a.c. - 10 A
- WP
- waterproof enclosure
- R1
- coolings fins (t 200° C); optional

The following data are required: type of fluid, specific gravity, operating temperature and pressure.



OFFICINE OROBICHE S.p.A.

24010 Ponteranica (Bergamo) ITALY - via Serena, 10 - Tel. +39.035.4530.211 - Fax +39.035.570546

www.officineorobiche.it e-mail: info@officineorobiche.it

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