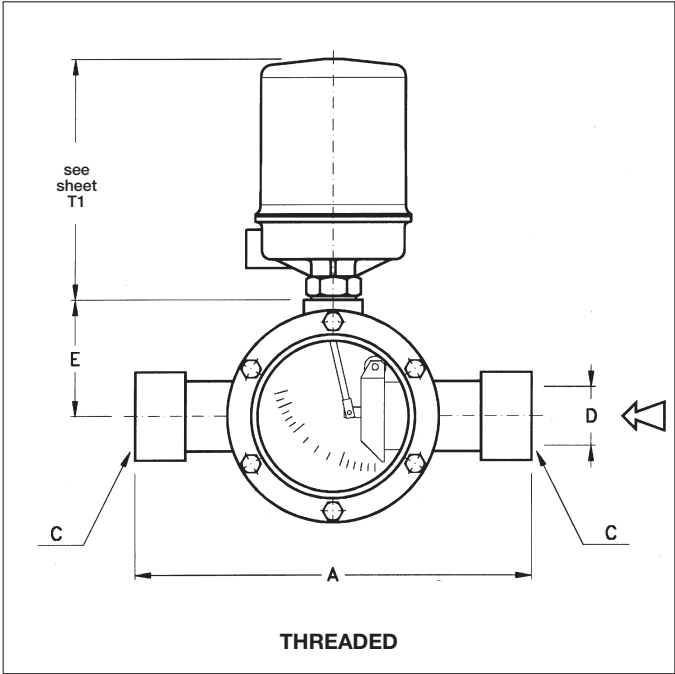
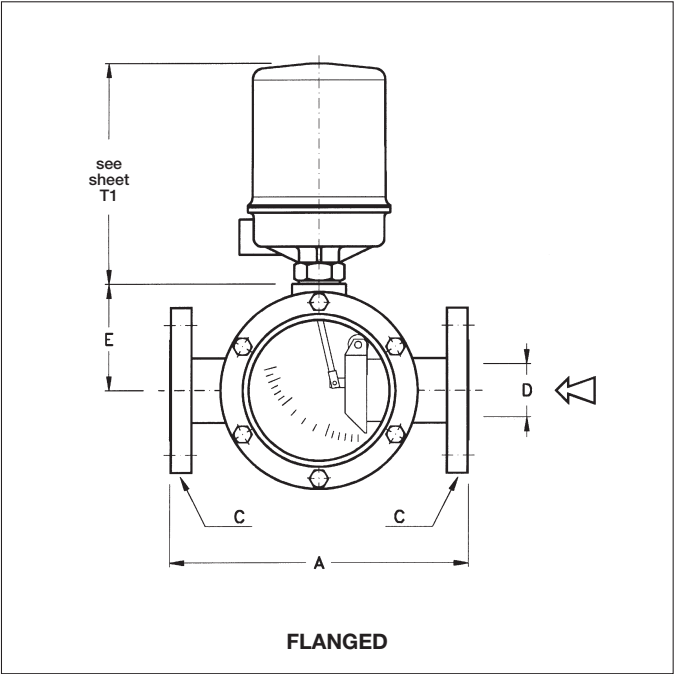


TGO SERIES FLOW ALARM SWITCHES

Paddle type flow switch for liquids, with flow indicator, for max. or min. flow alarm, with a single switching unit, with output on SPDT switch.

TECHNICAL DATA

- horizontal mounting
- single switching unit (on request, two SPDT switches with simultaneous action can be supplied)
- set point can be adjusted to between 10 ÷ 60% of max. flow rate (Q).
- fixed differential for each set point with value variable between 20 ÷ 50% of max. flow rate (Q)
- accuracy of flow indication: ± 15% of f.s
- calibrating liquid: water
- set point accuracy ± 5% of max. flow rate (Q)
- max. temperature 130°C
- max. pressure 10 Bar
- max. pressure drop 500 mm H₂O
- gaskets in neoprene



MODEL	FLANGED				THREADED			E mm	Q max m³/h H ₂ O
	A mm	D		WEIGHT ⁽¹⁾ ~ KG	A mm	D	WEIGHT ~ KG		
		UNI	ANSI						
TGO 50	280	50	2"	15	340	2"	10	100	20
TGO 65	300	65	2 1/2"	19,5	370	2 1/2"	14	100	30
TGO 80	330	80	3"	27	400	3"	21	115	50
TGO 100	380	100	4"	34	-	-	-	130	100

Std. "C" connections: flange UNI PN 10/ANSI 150 RF - threaded GAS/NPT-F.
On request, flanges with a higher rating can be supplied.



MATERIALS

CODE FOR:	Materials	Carbon steel	AISI 304	AISI 316
	Body	A	I	J
	Paddle and leverage	-	-	2

on request, version 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	
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: TGO 50 - A - 2 - M2 - WP

- TGO 50 model
- A body in carbon steel
- 2 paddle and internal leverage in S/steel AISI 316
- M2 dry microswitch 250 V a.c. - 10 A
- WP waterproof enclosure

The following data are required: type of liquid, specific weight, viscosity, temperature, pressure, working flow rate and required set point.



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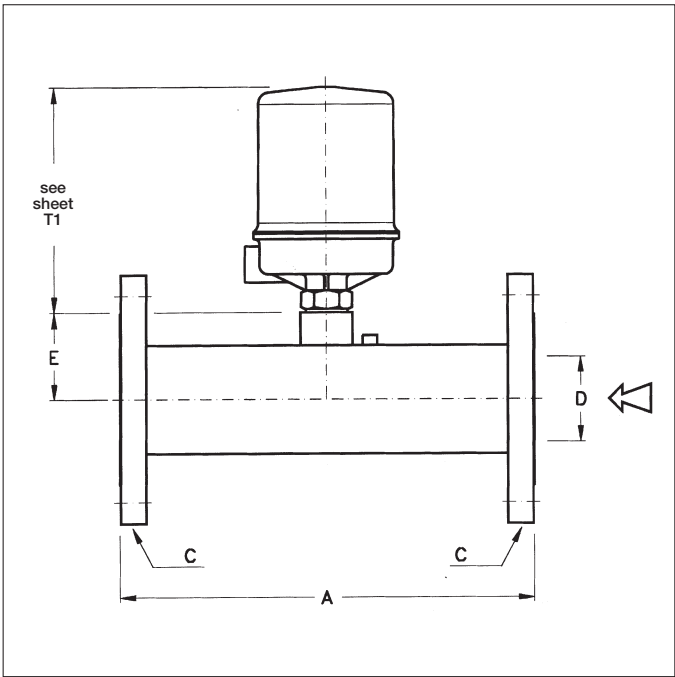
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PLD SERIES FLOW ALARM SWITCHES

Paddle type flow switch for water, with max. or min. flow alarm, with a single switching unit and with output on SPDT switch.

TECHNICAL DATA

- horizontal mounting
- single switching unit (on request, two SPDT switches with simultaneous action can be supplied)
- set point can be adjusted to between 20 ÷ 50% of max. flow rate (Q).
- fixed differential for each set point with values variable between 20 ÷ 50% of max. flow rate (Q).
- set point accuracy ± 5% of max. flow rate (Q)
- max. temperature 135°C
- max. pressure 10 Bar
- max. pressure drop 500 mm H₂O
- special versions made for liquids other than water.



MODEL	A mm	E mm	D		Q max m³/h H ₂ O	WEIGHT ~ KG
			UNI	ANSI		
PLD 40	200	55	40	1 1/2"	12	6
PLD 50	230	60	50	2"	15	9
PLD 65	280	65	65	2 1/2"	30	12
PLD 80	330	70	80	3"	40	14
PLD 100	380	80	100	4"	60	19
PLD 125	420	105	125	5"	100	26
PLD 150	420	105	150	6"	100	32

Std. “C” connections: flange UNI PN 10/ANSI 150 RF. On request, flanges with a higher rating can be supplied.



MATERIALS

CODE FOR:	Materials	Carbon steel	AISI 304	AISI 316
	Body	A	I	J
	Paddle and leverage	-	-	2

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	
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: PLD 50 - A - 2 - M2 - WP

- PLD 50 model
- A body in carbon steel
- 2 paddle and internal leverage in AISI 316
- M2 dry microswitch 250 V a.c. - 10 A
- WP waterproof enclosure

The following data are required: temperature, pressure, working flow rate and required set point.



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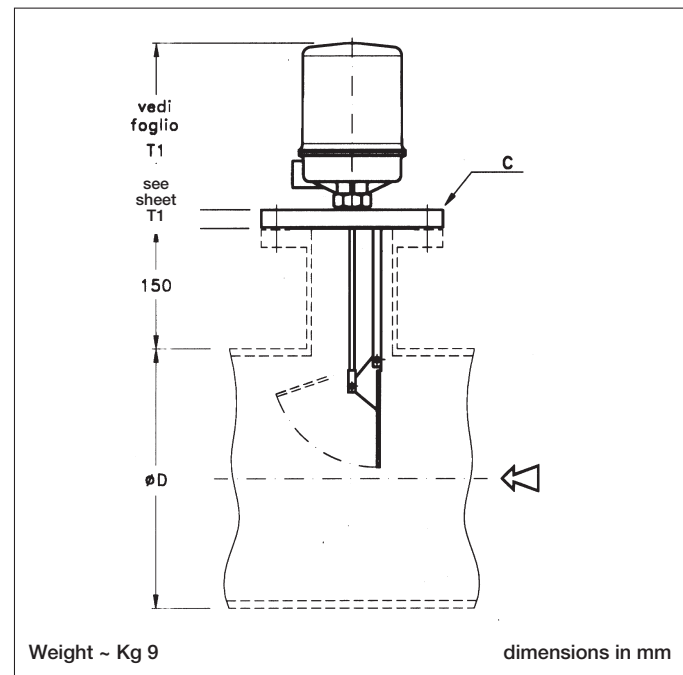
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PL SERIES FLOW ALARM SWITCHES

Paddle type flow switch for water, with max. or min. flow alarm, with a single switching unit, and with output on SPDT switch.

TECHNICAL DATA

- horizontal mounting
- single switching unit (on request, two SPDT switches with simultaneous action can be supplied)
- fixed set point
- fixed differential
- repeatability of set point $\pm 5\%$
- max. temperature 135°C
- pressure: see rating for flanges
- max. pressure drop 500 mm H₂O
- used for pipe of min. DN 100
- special versions made for air flow



CONNECTION "C"		MODEL	PIPE Sch.40 / SET m3/h						PIPE Sch.80 / SET m3/h						PIPE Sch.120 / SET m3/h						DIFFERENT.	FLUID	SET m/sec
			Ø D						Ø D						Ø D								
			3"	4"	6"	8"	10"	12"	3"	4"	6"	8"	10"	12"	3"	4"	6"	8"	10"	12"			
FLANGE UNI DN 80-100 / ANSI 3"- 4"		PL-11			7 40	12 70	18 110	26 156			6 36		16 93	25 151				9 57	15 90		25%	H ₂ O	0,1 0,6
		PL-12		12 27	27 60	46 105	73 165	104 234		11 24	24 54		62 140	101 227				38 35	60 135		20%	H ₂ O	0,4 0,9
		PL-13		12 30	27 67	46 116	73 183	104 260		11 27	24 61		62 156	101 252				38 94	60 150		20%	H ₂ O	0,4 1
		PL-14		33 80	74 181	128 314	201 494	286 702		29 72	67 163		171 421	277 680				104 254	165 404		20%	H ₂ O	1,1 2,7
		PL-15			268 470	465 813	732 1281	1040 1820			242 424		623 1091	1007 1763				377 659	599 1048		20%	AIR	4 7
FLANGE UNI DN 50 / ANSI 2" THREAD GAS-M / NPT-M 2" - 3"		PL-16		9 21	20 47	35 81	55 128	78 182		8 19	18 42		47 109	76 176				28 66	45 105		25%	H ₂ O	0,3 0,7
		PL-17	7 15	12 27	27 60	46 105	73 165	104 234	6 14	11 24	24 54		62 140	101 227				38 85	60 135		20%	H ₂ O	0,4 0,9
		PL-18	12 24	21 41	47 94	81 163	128 256	182 364	11 21	19 37	42 85		109 218	176 353				66 132	105 210		20%	H ₂ O	0,7 1,4
		PL-19		35 71	81 161	139 279	220 439	312 624		32 64	73 145		187 374	302 604				113 226	180 359		25%	H ₂ O	1,2 2,4
		PL-20			302 537	523 929	823 1464	1170 2079			272 484		701 1247	1133 2014				424 754	673 1197		20%	AIR	4,5 8

Process connection with higher sizes can be supplied, on request.



MATERIALS

CODE FOR:	Materials	Carbon steel	AISI 304	AISI 316
	Body	A	I	J
	Paddle and leverage	-	-	2

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 stand-ards. 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: PL 11 - A - 2 - M2 - WP

- PL 11
- model
- A
- body in carbon steel
- 2
- paddle and internal leverage in AISI 316
- M2
- dry microswitch 250 V a.c. - 10 A
- WP
- waterproof enclosure

The following data are required: temperature, pressure, working flow rate and required set point.



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