


Buoyancy Level Switch

8181

POLYPROPYLENE



PRELIMINARY
dd. 22.02.2001
Vers. 11.0

- ✓ Easy LINK thanks to reed output or junction box
- ✓ Process connection and junction box (relay or AS-interface) available 
- ✓ One level switch for normally open or closed connection
- ✓ LED in junction box

Level - ON/OFF Control

The level switch can be used to detect high and low level of a liquid and to switch pumps, valves, PLCs relays and alarms.

Process Specifications

Materials

Stem and float	Polypropylene (PP)
Circlip	Stainless steel 304
Housing and cover	Polycarbonate (PC)
Connectors	Polyamide (PA)
Max. pressure	1 bar
Float density	Approx. 0.7 g/cm ³
Process temperature	-10°C up to +80°C

Environment Specifications

Max. pressure	Atmospheric
Ambient temperature	-10°C up to +80°C
Rating	IP65

Electrical Specifications

Reed	
Max. cut-off voltage	48 VA AC/DC
Max. cut-off current	0.5 A
Contact type	NO / NC
Relay	
Voltage supply	24 V/DC ±20%
Current consumption	30 mA max.
Nominal voltage	250 V/AC / 30 V/DC
Nominal current	3 A
Contact type	NO / NC

Electrical Connections

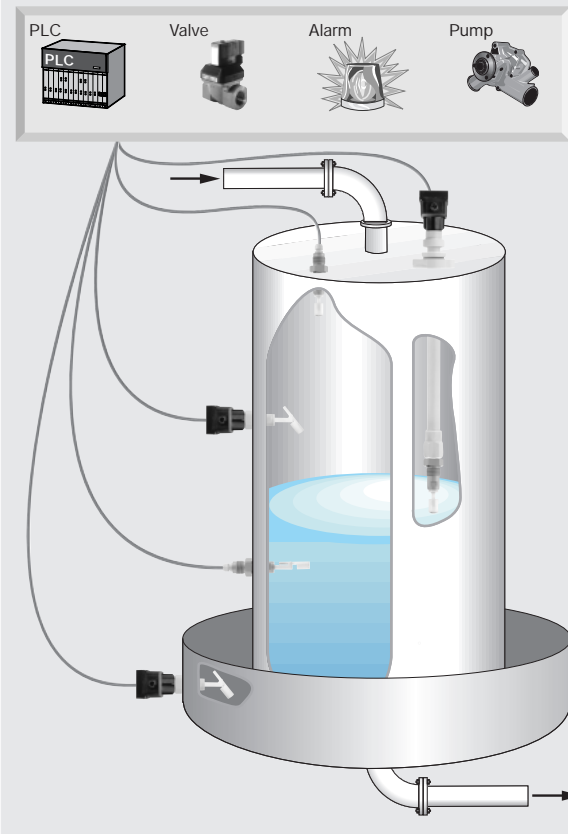
Reed	Flying leads
Relay	5 pin, multipin plug M12 + cable plug 2508 DIN 43 650 A
AS-interface	4 pin, multipin plug M12 + cable plug 2508 DIN 43 650 A

Standards

EMI	EN 50081-1 EN 50082-2
Safety	EN 61010

Applications:

- Level control
- Min./Max. level monitoring
- Leak detection
- Pump protection
- Overfill protection



Buoyancy Level Switch

Specifications - Ordering Chart for Type 8181

Description for Switch with Reed Contact	Cable length [m]	Process Connection	Electrical Connection	Item No. Vertical	Item No. Horizontal
PP Body and Floater World Wide					
Sensor type, up to 48 V AC/DC	-	G 1/4	Flying leads	-	438 141 W
Sensor type, up to 48 V AC/DC	-	G 1/8	Flying leads	438 132 M	-
Sensor type, up to 48 V AC/DC	2.0	G 3/4	Flying leads	438 501 Y	438 495 J
Sensor type, up to 48 V AC/DC	5.0	G 3/4	Flying leads	438 502 Z	438 496 K
PP Body and Floater ASEAN					
Sensor type, up to 48 V AC/DC	2.0	Rc 3/4	Flying leads	438 525 P	438 519 Z
Sensor type, up to 48 V AC/DC	5.0	Rc 3/4	Flying leads	438 526 Q	438 520 W
PP Body and Floater NAFTA					
Sensor type, up to 48 V AC/DC	2.0	NPT 3/4	Flying leads	438 513 K	438 507 W
Sensor type, up to 48 V AC/DC	5.0	NPT 3/4	Flying leads	438 514 L	438 508 F

Description for Switch with Relay	Voltage Supply	Process Connection	Electrical Connection	Item No. Vertical	Item No. Horizontal
PP Body and Floater World Wide					
Sensor type	24 V/DC	G 3/4	M12 plug + cable plug 2508*	438 503 S	438 497 L
PP Body and Floater ASEAN					
Sensor type	24 V/DC	Rc 3/4	M12 plug + cable plug 2508*	438 527 R	438 521 K
PP Body and Floater NAFTA					
Sensor type	24 V/DC	NPT 3/4	M12 plug + cable plug 2508*	438 515 M	438 509 G

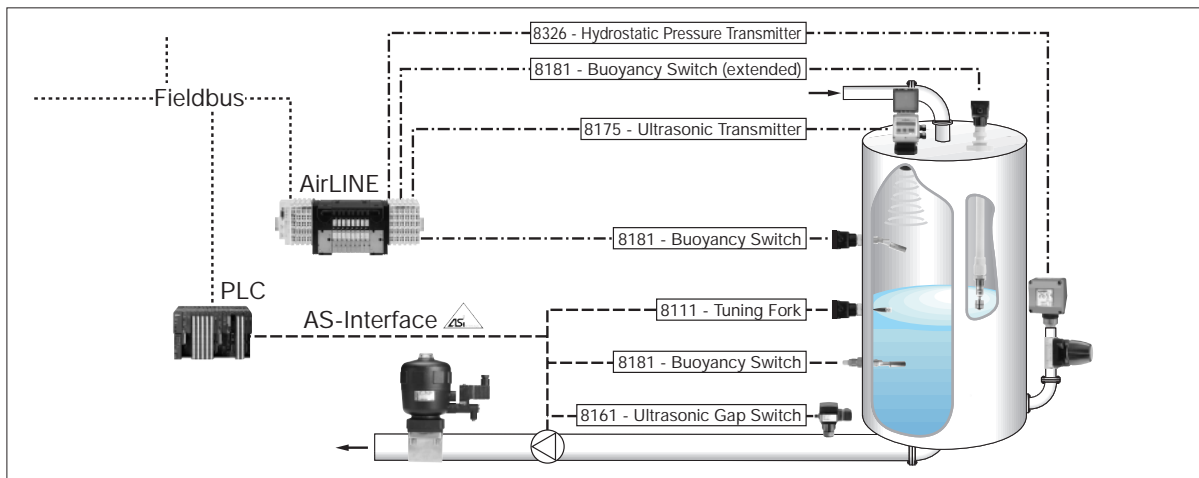
Description for Switch with AS-interface and Relay	Voltage Supply	Process Connection	Electrical Connection	Item No. Vertical	Item No. Horizontal
PP Body and Floater World Wide					
Sensor type	AS-I bus	G 3/4	M12 plug + cable plug 2508*	440 309 V	440 307 K
PP Body and Floater ASEAN					
Sensor type	AS-I bus	Rc 3/4	M12 plug + cable plug 2508*	440 317 C	440 315 A
PP Body and Floater NAFTA					
Sensor type	AS-I bus	NPT 3/4	M12 plug + cable plug 2508*	440 313 G	440 311 E

* Europe / Asia (G / Rc): PG9 connection on cable plug
 * USA / CDN (NPT): G 1/2 connection on cable plug

Specifications - Ordering Chart Accessories for Type 8181 (to be ordered separately)

Description	Item No.
Extension	see data sheet type 8130
Cable connector M12 female with plastic threaded locking ring	917 116 D
Cable connector 5 pin M12 female with moulded-in cable (2 m, shielded)	438 680 F

Picture of our Total Offering in Level Control

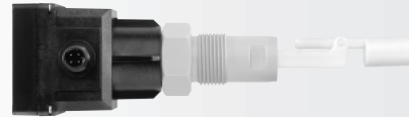
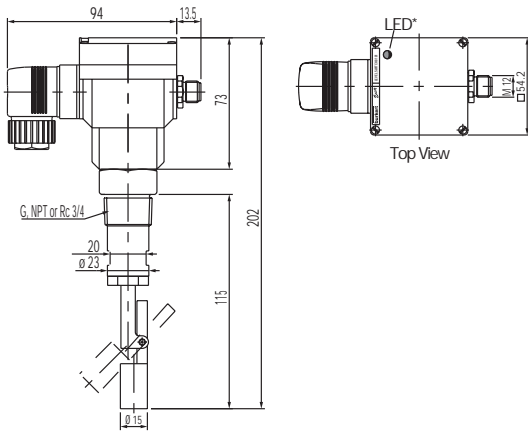


Buoyancy Level Switch

Level - ON/OFF Control

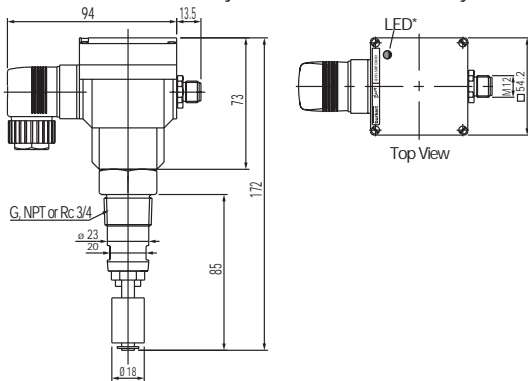
Dimensions [mm] and Electrical Connections for Type 8181 with Junction Box

Horizontal Version with Relay or AS-interface and Relay



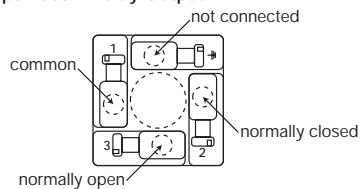
* LED only visible if relay is switched on

Vertical Version with Relay or AS-interface and Relay

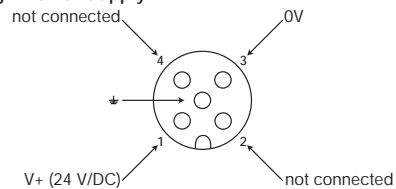


* LED only visible if relay is switched on

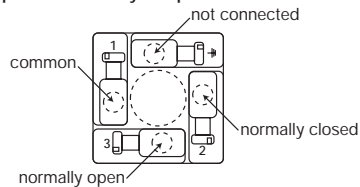
Electrical Connection Relay Version Cable Plug Type 2508 - Relay Output



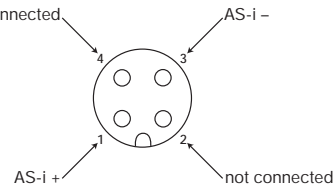
M12 Plug - Power Supply



Electrical Connection AS-Interface and Relay Version Cable Plug Type 2508 - Relay Output



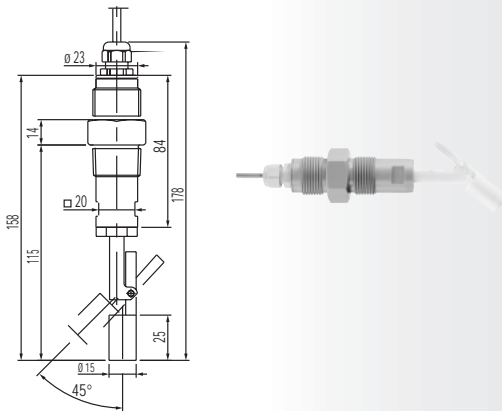
M12 Plug - AS-Interface



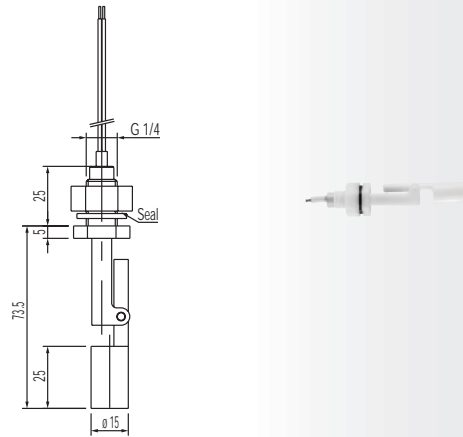
Buoyancy Level Switch

Dimensions [mm] for Type 8181 without Junction Box

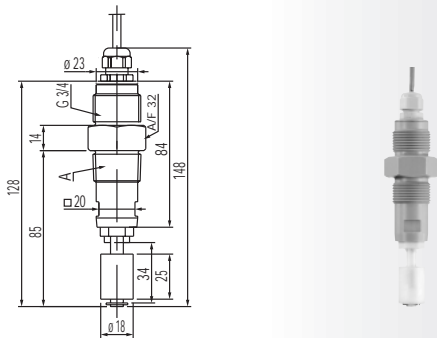
Horizontal Version with Reed and Process Connection G 3/4



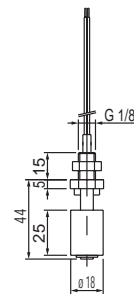
Horizontal Version with Reed and Process Connection G 1/4



Vertical Version with Reed and Process Connection G 3/4



Vertical Version with Reed and Process Connection G 1/8



In case of special requirements please consult for advice.

We reserve the right to make technical changes without notice.
010-GB/ 1-0XXX