

More Safety More Safety by **directly measuring**



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Tank sensors for
directly level measuring of

- ▶ Fresh water
- ▶ Diesel oil
- ▶ Grey water

Learn more about the attractive tank sensors
from Barksdale and give us your requirements.

Control Control every move

Barksdale

CONTROL PRODUCTS

CRANE Barksdale, Inc./Barksdale GmbH
A Subsidiary of Crane Co.

Features

Based on serial manufacturing the UNS2300-Bistable is a very attractive level switch for stationary and mobile applications.

Equipped with one or more switch points; by using only one float the UNS2300-Bistable is suitable for applications where a half-continuous output signal with low resolution is demand.

Measuring ranges

Length L0 from 80 to 500 mm

Max. 10 switch points with one float

Applications

RV

Yachts

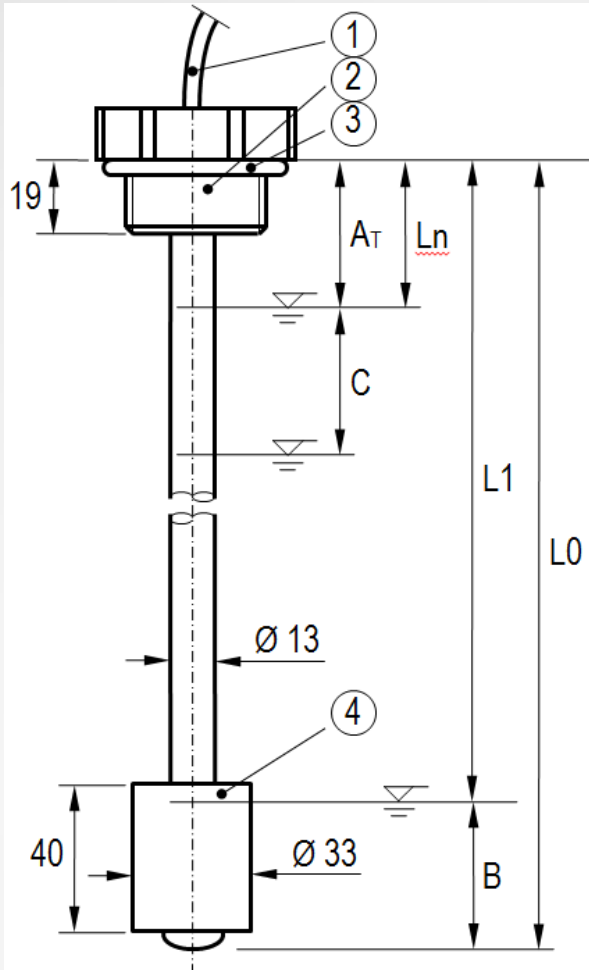
Cooling monitoring



Technical Data

Measuring principle:	Float-magnetic-system activates bistable reed contact
Material: Wetted parts Process connection: Tube: Float: Sealing (O-Ring):	ABS (Acrylnitril-Butadien-Styrol) Stainless steel 1.4301 PE (Poethylen) EPDM
Electrical connection:	PVC-cable, 0.2 m, 2 x 0.34 mm ² PVC-wire, 0.2 m, 0.5 mm ² or plug on request
System of protection:	cable/wire: IP65
Power supply:	max. 48 V AC/DC, max. 0.5 A or max. 10 VA/W
Output signal:	ohmic (see order code)
Repeatability:	± 2 mm (typically)
Distance of switch point:	min. 40 mm
Installation position:	vertical from above
Float depth of immersion at:	25 ±2 mm (ρ = 1.0 g/cm ³)
Operating pressure:	max. 0.5 bar (RT)
Operating temperature:	0 °C ... +70 °C
Weight:	max. 0.15 kg

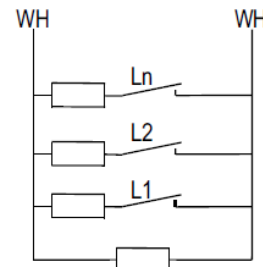
Dimensions (in mm)



- 1 PVC-cable or wire, length 0.2 m
- 2 Process connection G1¼" or Pg29
- 3 Sealing, O-ring of EPDM
- 4 Float PE33 ($\rho_{min} = 0.7 \text{ g/cm}^3$)

- A_T min. 40 mm (dead space on top)
- B min. 40 mm (dead space at the bottom)
- C min. 40 mm (distance of switch point)
- L₀ Total length from 80 ... 500 ± 3 mm
- L₁ Level switch point L1 (NO, ±5 mm)
- L_n Level switch point L_n (NO, ±5 mm)

Anschlussplan / wiring diagram



Darstellung / picture:
Tank / tank = leer / empty

Order-Code:

UNS2300	- ABS / VA /	Pg29	- K0,2	- PE33	- L4 / 4 . 4 . 4 . 4
					L4 (top level switch point): 4 = NO - bistable
					L3: 4 = NO - bistable
					L2: 4 = NO - bistable
					L1 (bottom level switch point): 4 = NO - bistable
					Number of switch points (here 4 level switch points)
					Float (Ø33 mm) of PE
					electr. connection: K0.2 = cable 0.2 m or L0.2 = wire 0.2 m
					Process connection: Pg29 = Pg29 thread or T1¼" = G1¼" thread
					Material of process connection: ABS and tube stainless steel

UNS2300 tank sensor with bistable reed contacts

Inquiry and order with indication of lengths and relevant output signal (e.g. shown on the bottom)

L0	= 280 mm, 6.2 kOhm (empty)
L1	= 230 mm, NO - bistable, 1.6 kOhm (¼)
L2	= 180 mm, NO - bistable, 0.9 kOhm (½)
L3	= 130 mm, NO - bistable, 0.3 kOhm (¾)
L4	= 70 mm, NO - bistable, 0 Ohm (full)

Features

Based on serial manufacturing the UNS2300-Mono stable is a very attractive level switch for stationary and mobile applications. Equipped with one or more switch points; by using only one float the UNS2300-Mono stable is suitable for applications where a half-continuous output signal with medium resolution is demand.

Rugged stainless steel tube version for sophisticated requirements.

High shock and vibration resistance.

Measuring ranges

Length L0 from 125 to 1,000 mm

Max. 55 switch points with one float

Applications

RV

Yachts

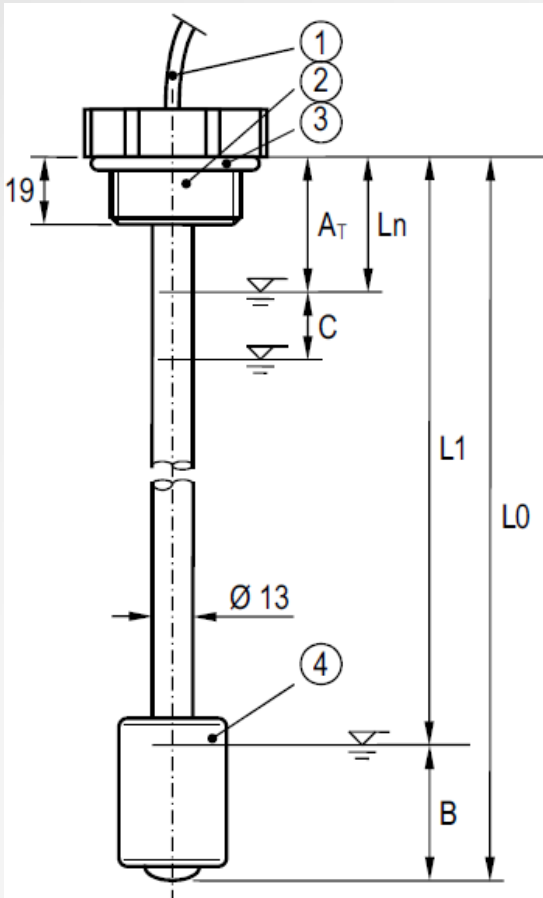
Cooling monitoring



Technical Data

Measuring principle:	Float-magnetic-system activates mono stable reed contact
Wetted parts	
Process connection:	ABS (fresh water) or PA (diesel oil)
Tube:	Stainless steel 1.4301
Float:	PE (fresh w.) or NBR (diesel oil)
Sealing (O-Ring):	EPDM (fresh w.) or NBR (diesel)
Electrical connection:	PVC-cable, 0.2 m, 2 x 0,34 mm ² PVC-wire, 0.2 m, 0.5 mm ² (or plug on request)
System of protection:	cable/wire: IP65
Power supply:	max. 24 V AC/DC, max. 0.1 A or max. 1 VA/W
Repeatability:	± 3% v.f.s. (typically)
Output signal:	ohmic (see order-code)
Distance of switch point:	16 mm
Installation position:	vertical from above
Float depth of immersion at:	
PE33 (Ø33mm x 40mm):	27 ±2 mm (ρ = 1.0 g/cm ³)
BN30 (Ø30mm x 44mm):	19 ±2 mm (ρ = 1.0 g/cm ³)
Operating pressure:	max. 0.5 bar (RT)
Operating temperature:	
Water:	0 °C ... +70 °C
Diesel oil:	-10 °C ... +70 °C
Weight:	max. 0.75 kg

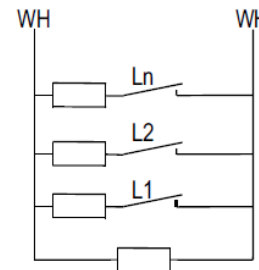
Dimensions (in mm)



- 1 PVC-cable or wire, length 0.2 m
- 2 Process connection
Fresh water: G1¼" or Pg29 off ABS
Diesel oil: G1¼" off PA
- 3 Sealing
Fresh water: O-ring off EPDM
Diesel oil: O-ring off NBR
- 4 Float
Fresh water: PE33 ($\rho_{min} = 0.85 \text{ g/cm}^3$)
Diesel oil: BN30 ($\rho_{min} = 0.60 \text{ g/cm}^3$)

A_T min. 40 mm (dead space on top)
 B min. 40 mm (dead space at the bottom)
 C appr. 16 mm (distance of switch point)
 L0 Total length from 125 ... 1,000 mm
 L1 Level switch point L1 (NO, ±5 mm)
 Ln Level switch point Ln (NO, ±5 mm)

Anschlussplan / wiring diagram



Darstellung / picture:
 Tank / tank = leer / empty

Order-Code:

UNS2300 - ABS / VA / Pg29 - K0,2 - PE33 - L4/MO

L4/MO = Number of switch points (here 4 level switch points), mono stable
 HK = Output signal half-continuous spread over the whole length

Float PE33 (fresh water) or BN30 (diesel oil)

electr. connection: K0.2 = cable 0.2 m or L0.2 = wire 0.2 m

Process conetion: Pg29 = Pg29 thread (ABS) or T1¼" = G1¼" thread (ABS or PA)

Material of process connection ABS (fresh water) or PA (diesel oil) and tube stainless steel

UNS2300 tank sensor with mono stable reed contacts

Inquiry and order with indication of lengths and relevant output signal (e.g. shown on the bottom)

with L4/MO
 L0 = 280 mm, 6.2 kOhm (empty)
 L1 = 230 mm, NO - bistable, 1.6 kOhm (¼)
 L2 = 180 mm, NO - bistable, 0.9 kOhm (½)
 L3 = 130 mm, NO - bistable, 0.3 kOhm (¾)
 L4 = 70 mm, NO - bistable, 0 Ohm (full)

with HK
 L0 = 400 mm, 5 Ohm (empty) to 180 Ohm (full),
 dead space on top and on the bottom both 40 mm

Features

Based on serial manufacturing the UNS – Single Switch waste water is a very attractive level switch for stationary and mobile applications.

Equipped with a high-level-alert-switchpoint the UNS Single Switch is suitable for optical and acoustical signal transmitter.

Rugged stainless steel tube version for sophisticated requirements.

High shock and vibration resistance

Measuring ranges

Length L0 = 74 mm

Max. 1 switch point at L1 = 50 mm and one float

Applications

RV

Yachts

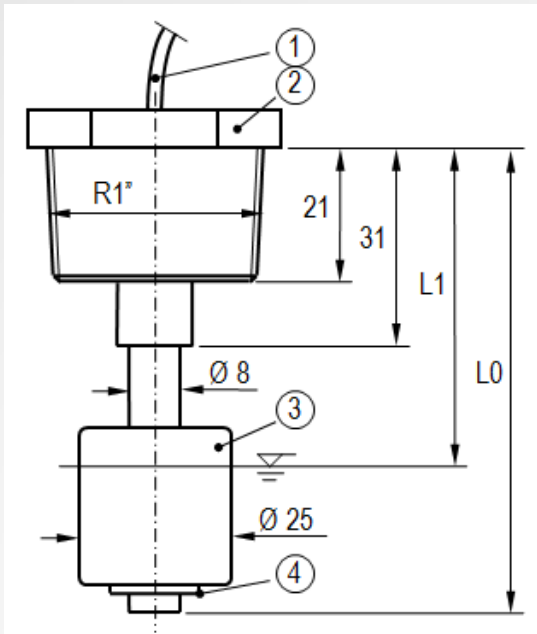
Cleaning systems



Technical Data

Measuring principle:	Float-magnetic-system activates bistable reed contact
Material: Wetted parts Process connection: Tube: Float: Float stop:	ABS ABS NBR geschäumt Bronze
Process connection:	R1" acc. to DIN 2999
Electrical connection:	PVC-cable, 0.2 m, 2 x 0.34 mm ² PVC-wire, 0.2 m, 0.5 mm ² (with plug on request)
System of protection:	cable/wire: IP54
Power supply:	max. 24 V AC/DC, max. 0.5 A or max. 10 VA/W
Repeatability:	L1 ± 3% (typically)
Output signal:	(see order code)
Installation position:	vertical from above
Float depth of immersion at:	10 ±2 mm (ρ = 1.0 g/cm ³)
Operating pressure:	max. 0.5 bar (RT)
Operation temperature:	0 °C ... +70 °C
Weight:	max. 0.04 kg

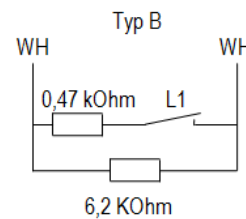
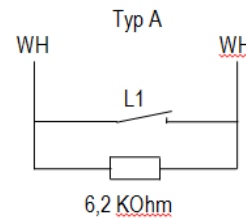
Dimensions (in mm)



- 1 PVC-cable or wire, length 0.2 m
- 2 Process connection
R1" DIN 2999 (SW36)
- 3 Float BN25 (pmin = 0.57 g/cm³)
- 4 Float stop

L1 Level switch point L1 = 50 ± 3 mm, NO or NC
 L0 Total length L0 = 74 ± 2 mm

Anschlussplan / wiring diagram



Darstellung / picture:
 Tank / tank = leer / empty

Order-Code:

UNS	Single Switch (with on level switch point)
Material of process connection resp. Tube	
ABS	
Process connection	
T1	R1" thread
Electrical connection	
K0,2	cable length 0.2 m
L0,2	wire length 0.2 m
STS	100 mm wire with plug (2-pol., VW 1J0.972.923), wiring diagram Typ B output resistance empty: 6.2 kOhm output resistance full: 0.47 kOhm
STA	100 mm wire with plug (2-pol., AMP, 2.8 x 0.8); wiring diagram Typ A output resistance empty: 6.2 kOhm output resistance full: 0 kOhm
Float	
BN25	NBR foamed
Switch function (tank = empty)	
1	NO (closed)
2	NC (open)

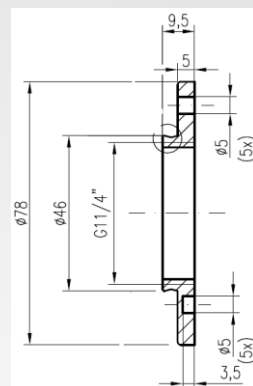
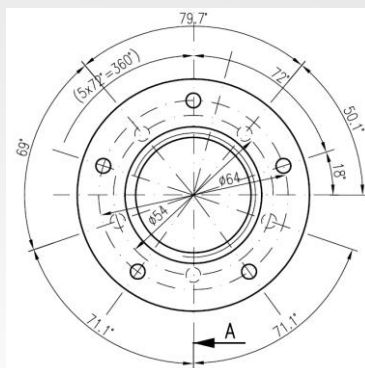
Example:

UNS - ABS / T1 - STS - BN25 / 2

Accessories for tank sensor / level transmitter

Flange

with G1¼" female
Material: ABS (black)
Art.-No.: 906-0782



Flat seal

for flange 906-0872
Material: PUR, 65°Sh
Art.-No.: 902-0478

Locking screw

witt G1¼" male and SW24
(for service work or flange
906-0782)
Material: PA6 (yellow)
Art.-No.: 901-1174



Darstellung mit Flansch
906-0782

Hexagon nut

with Pg29 female thread and
SW46
Low construction
(height 7 mm)
Material: ABS (grey)
Art.-No.: 907-0321



O-Ring

off EPDM for process
connection Pg29,
Art.-No.: 902-0366

off EPDM for procecc
connection G1¼",
Art.-No.: 902-0485

off NBR for process
connection G1¼",
Art.-No.: 902-0566



Examples of applications

Give us your
requirements!



2015 / 01 V1 Subject to technical changes.

Tank sensors for directly level measuring of fresh water, diesel oil and grey water

Send us your requirement by fax
to +49 (0) 6035 949 – 111
or send an e-mail
to support@barksdale.de

For a fast follow-up of your inquiry please give us the following informationen:

Application: _____ Proces connection _____

Medium: _____ Operating pressure: _____

Tank height: _____ Operating temp.: _____

Number of switching points: _____ Electr. Connection: _____

Output signal: _____ Number of pieces: _____

Other: _____

Company: _____

Name: _____

Street: _____

Zip-code, City.: _____

Tel.: _____

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