Characteristics

1510 - MODULAR - FLOAT

	- Input:	Level 1002000 mm
	- Output:	420 mA HART / Contacts
	- Voltage supply:	Out of current loop 1240 VDC (analogue)
	- Accuracy:	See technical details
	- Process connection:	Several options
	- Electrical connection:	Several plugs / cable
	- Temperature range:	0+80 °C (operation)
	- Temperature sensor:	Option: RTD Pt100, 2-wire
	- System pressure:	25 bar maximum
	- Medium:	Non aggressive fluids
	- Protection:	At least IP65 (electronics) / IP68

Technical data

Input					
Level: Medium: Option:	1002000 mm non aggressive fluids resistance thermometer Pt100, 2-wire				
Output					
Current:	Signal:ZRange:ZSignal on error:Z	420 mA with superimposed communication signal (HART) 3,621 mA 21 mA (sensor break, sensor open circuit, sensor short circuit, underflow)			
Contact:	Switching capacity: 5 Switching voltage: 6 Switching current: 6 Minimum current: 7	2 or 3 make contacts (minimum / maximum / minimum 1 or maximum 1) 5 W / VA maximum 60 V AC/DC maximum 0,3 A maximum 10 mA			
Performance					
Level:	Resolution: Hysteresis:	steps every 4,5 mm ca. 3mm			
Measuring amplifier:	Resolution: Filter setting: Transmission behaviou Measuring rate: Turn-on delay time: Accuracy:	16 Bit 099 s ur: linear with level 10 measurements/s <5 s Class A			
Programmable featur	res				
Measuring amplifier: Display: Limit value contacts:	measuring range start range of indication / tin locking of programmin limit value 1 and 2 / hy	/ measuring range end / filter ne of indication / decimal point / units / stabilisation of zero point / g / calibration points / TAG number ysteresis 1 and 2 / delay times 1 and 2			

Applications

Suitable as a level limiting value switch, a level sensor in simple control loops or as indication for tendency of level. For use in industrial plants, terotechnology and public utility (eg tanks for hydraulic oil). Due to the used materials and the compact design, this sensor with its small dimensions is very robust.



Modular and Compact Level Sensor HART / Switch Page-1

🛑 Technical data (contin	ued)		
Supply			
Current output:	Voltage: Load: Reverse battery protect	ction:	out of HART current loop: 1240 VDC R = (U _B -12 V) / 22 mA available (no function, no damage)
Ambient conditions			
Temperature:	Operating range: Storing: Medium: uncritical	0+80 °C -20+85 °C 0+100 °C	
System pressure:	25 bar maximum		
Mechanics			
Dimensions: Process connection: Electrical connection:	see page 3 3/4" with adaptor: 1" / 1,5 see page 3	" / 1"NPT	
Material:	Float:		PE Ø24 (density medium: 1 or more) PE Ø29 Option: stainless steel Ø29 (1.4571)
	Adaptor piece: Process connection:		stainless steel 1.4571 stainless steel 1.4571
	Body of enclosure: Inset of electrical conn	ection:	stainless steel 1.4571 PBT GF30 option: stainless steel 1.4571
Weight: Fitting position:	approx. 220 g (1/2", 10 vertical	00 mm, M12)	
Protection of device:	Ingress protection:	at least IP 6 IP68 (senso	5 (electronics) r)
	PCB:	potted	

Connection

Connection	Current loop 420 mA HART		Contacts					
	U+	U-	RTD Pt100	COM	min	max	min1/max1	RTD Pt100
M12x1, 4-pole	1	3	2-4	1	2	3	4	
M12x1, 5-pole	1	3	2-4	1	2	3	4	
M12x1, 5-pole				1	2	3		4-5
M12x1, 6-pole	1	3	2-4	1	2	3	4	5-6
M12x1, 8-pole	1	3	2-4	1	2	3	4	5-6
Super Seal, 3-pole	1	3		1	2	3		
Deutsch DT04, 3-pole	А	В		А	В	С		
Deutsch DT04, 4-pole	1	3	2-4	1	2	3	4	
Bayonet (DIN), 4-pole	1	2	3-4	1	2	3	4	
Valve plug, 4-pole	1	2	3-GND	1	2	3	GND	
Cable, 4-wire ¹	green	brown	white-pink	green	brown	grey	yellow	
Cable, 6-wire ¹	green	brown	white-pink	green	brown	grey	yellow	white-pink
MIL, 6-pole	А	С	E-F	А	В	С	D	E-F

¹Attention: Color assignment can deviate from the values shown in table. For the final values, please consult the product label.

Electrical connection							
M12x1	Super Seal	Deutsch	Deutsch	Bayonet	Valve ¹⁾	MIL	Cable
4-pole 5-pole 6-pole 8-pole	3-pole	3-pole	4-pole	4-pole	4-pole	6-pole	6-pole
Connection with inset metal							
4-pole 6-pole					4-pole	6-pole	6-pole

1) Accoding EN 175301-803, type A

Inset of electrical connection



Dimensions, definitions (in mm)



Order code		M N X X - X - X X X - X X X
Float:	Plastics Ø24 ¹⁾ Plastics Ø29 (standard) Stainless steel Ø29	1 2 3
Output:	Contacts (min / max) Contacts (min / max / min1) Contacts (min / max / max1) 420 mA (current loop), HART	0 1 2 3
Fitting length: ²⁾	100 mm 200 mm 300 mm 400 mm 600 mm 1000 mm	100 200 300 400 600 A00
Process connection:	3/4" 1" 1,5" 1"NPT Flange mounting DIN (on request) Other connection (on request)	3 4 5 9 A B
Electrical connection:	Cable gland, 2 m cable (metal) MIL D38999, 6-pole (metal) Valve plug EN 175301-803, 4-pole (metal) M12x1, 6-pole (metal) M12x1, 4-pole (metal) M12x1, 4-pole (plastics) M12x1, 5-pole (plastics) M12x1, 8-pole (plastics) Deutsch DT04, 3-pole (plastics) Deutsch DT04, 4-pole (plastics) Super Seal 1.5, 3-pole (plastics) Bayonet (DIN), 4-pole (plastics) Valve plug, 4-pole (plastics) Cable, 2 m (plastics) M12x1, 6-pole (plastics)	0 1 2 3 4 5 6 7 8 9 A B C D E F
RTD Pt100:	Without With, 2-wire	0
Resolution:	In 4,5 mm steps (only if 420 mA)	0
Other:	Special model	0
 For floats with Ø24 m Other fitting lengths: 1 550 = 550 mm / 650 = A10 = 1100 mm / A15 A40 = 1400 mm / A45 A70 = 1700 mm / A75 B00 = 2000 mm 	m the minimum density is 1 50 = 150 mm / 250 = 250mm / 350 = 350 mm 650 mm / 700 = 700 mm / 800 = 800 mm / 85 9 = 1150 mm / A20 = 1200 mm / A25 = 1250 m 1450 mm / A50 = 1500 mm / A55 = 1550 m 15 = 1750 mm / A80 = 1800 mm / A85 = 1850 m	a / 450 = 450 mm / 500 = 500 mm / 50 =850 mm / 900 = 950 mm / A05 = 1050 mm m / A30 = 1300 mm / A35 = 1350 mm / m / A60 = 1600 mm / A65 = 1650 mm / m / A90 = 1900 mm / A95 = 1950 mm /
Accessories:	DEV-HM (Interface HART, USB, software)	Order No.: 01310-00220
HART Communica	tion and configuration	
The HART-Tool is a grap	phical user interface with menu-driven progam	for configuration. It can be used for putting into

 The HART-Tool is a graphical user interface with menu-driven progam for configuration. It can be used for putting into operation, configuration, analysis of signals, data backup and documentation. Operating systems: XP, W7, W8.1 and W10. Connection via HART interface (modem) with USB or hand-held HART communicator. Possible settings:

 - Adjustment output current
 - Simulation output current
 - Filter function
 - Limits of measuring range

 - Linear output signal
 - HART address
 - 2-point calibration
 - 10-point calibration (linearization)

 Please note:
 When using communication via a HART modem, a comunication resistance of 250 Ω has to be taken into account.
 Subject to change version 42,814

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Subject to change, version 42-814