SULZER

Control Panel Type ABS
CP 212

EN **Adjusting and Configuration Guide**

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SULZER
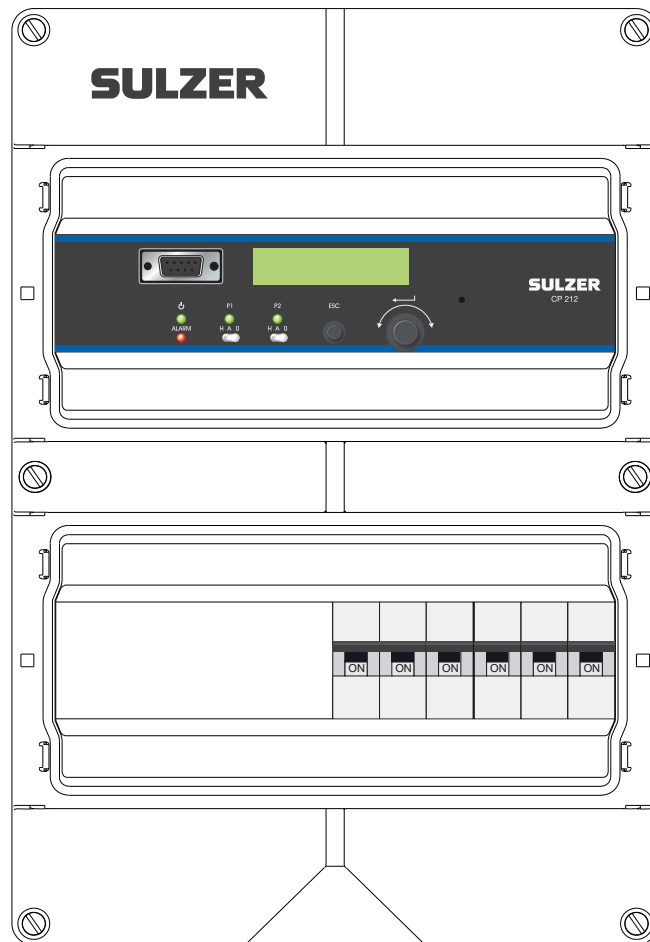
1 User interface CP 212 two pumps

RS-232 port for computer (service port)

Level   2,88 m
No Alarm

Power indicator
Alarm indicator

Manual/Auto/Off
Pump 1, Pump 2

Escape/cancel

Menu selection knob

Buzzer

Indication lamp for pump (green/red)
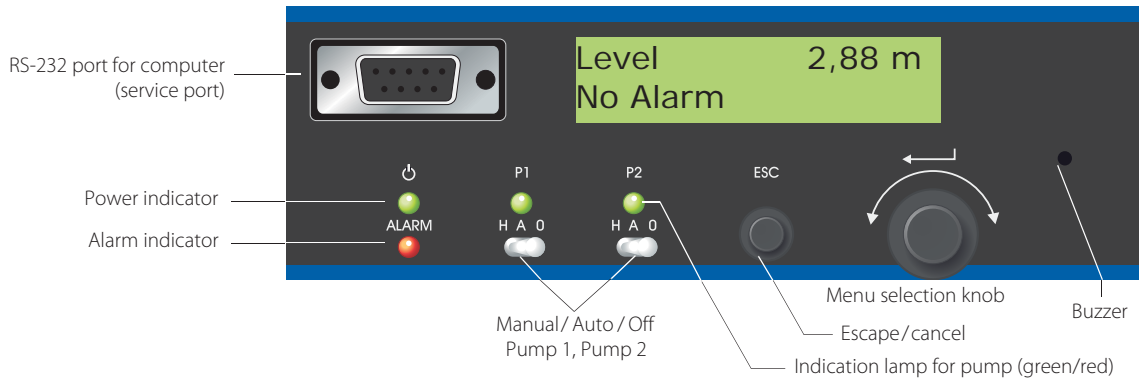
Table 1   General Settings and Indications

1	**If an alarm occurs at the beginning,then**	

	Confirm alarm	↵

1 a

Level   -0,87 m
Not Ackn. Alarm ↵

Reason for the alarm:
missing / not connected sensor **ESC**

2	On access 1x turn left	↺
3	Select language	Select language	↵
			↺
			↵
	Mains connection	View only	↺
		Single phase/three phase	
	Back to main menu		**ESC**

1 b

Phase Error
Not Ackn. Alarm ↵

Reason for the alarm:
wrong rotating field (change phase) **ESC**

4   **Operating Data-Display**

	9x turn right	
Level xxx m	View only	↺
Current P1	View only	↺
Cos phi P1	View only	↺
Current P2	View only	↺
Cos phi P2	View only	↺
Run time P1	View only	↺
Run time P2	View only	↺
No. starts P1	View only	↺
No. starts P2	View only	↺

Explanation of symbols:

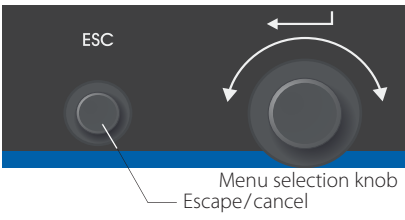| turn right =	↺
turn left =	↺
enter (Save occurs) =	↵
back to main menu =	**ESC**

Reset to factory settings:

back to main menu =>   **ESC**

press ESC and Enter together,
longer as 5 sec.

Action field:
Please enter stated or
rather desired value /
enter a command of
rather modify.

ESC

Menu selection knob
Escape/cancel

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2 Connection of an analogue sensor, for example a HSC2-sensor including the appropriate basic settings, with or without EX.
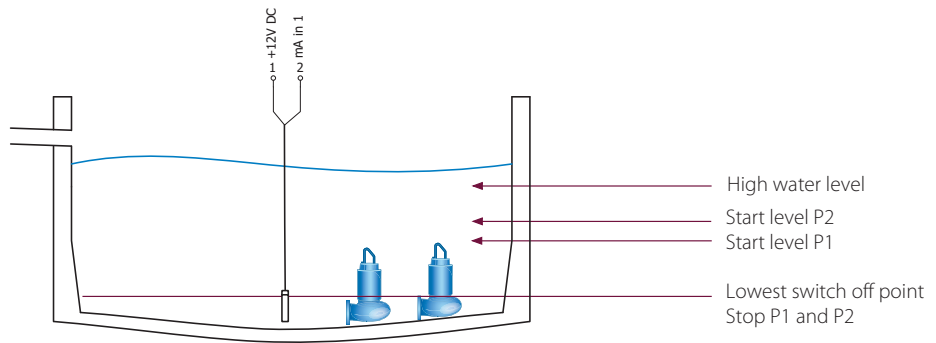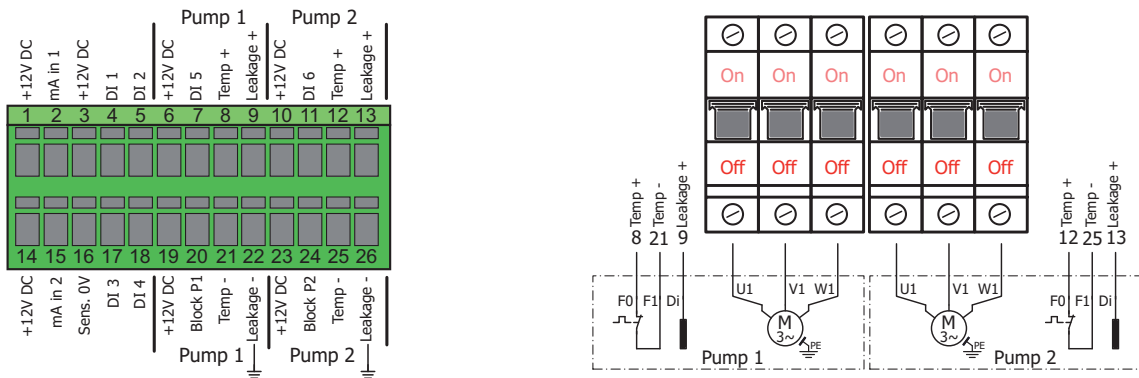
Connection

High water level
Start level P2
Start level P1

Lowest switch off point
Stop P1 and P2

Table 2   Settings

	Sensor type	Selection sensor	
5	**Analogue sensor, for example HSC2**		
6	**Analogue mA1**		↻
	Scaling 100% = xx,x m	Enter end value of sensor	↵
		turn until value HSC2	↺↺
		correspond, for example 4,0 m.	↵
		Set to 4,0 m	↻
	Scaling 0% = 0,0 m	View only	↻
	Units [m]	View only	↻
	Filter 2s	View only	↻
7	Highwater alarm xx,x m	High water level 0-3,5 m	↵
		Enter value, for example 2 m	↺↺
		Set to 2 m	↵
			↻
	Dry run alarm xx,x m	Dry run limit value	↵
		Enter value, for example -3 m	↺↺
		Set to -3 m	↵
			↻

Identify value of pump pit and register.

	Start level P1	xx,x m	Start one pump	↵
			Enter value, for example 0,7 m	↺↺
			Set to 0,7 m	↵
				↻
	Stop level P1	xx,x m	Stop one pump	↵
			Enter value, for example 0,2 m	↺↺
			Set to 0,2 m	↵
				↻
	Start level P2	xx,x m	Start two pumps	↵
			Enter value, for example 0,8 m	↺↺
			Set to 0,8 m	↵
				↻
	Stop level P2	xx,x m	Stop two pumps	↵
			Enter value, for example 0,3 m	↺↺
			Set to 0,3 m	↵
				↻
8	Func. back pressure	[Off]	View only	↻
9	Alternation [Stop both]		View only	↻

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Table 2 Settings

No.	Setting	Instruction	Control
10	Max. running pumps [2 pumps]	View only	↻
	P2 connected [Yes]	View only	↻
	Start delay. 3s	View only	↻
	Stop delay. xx s	Enter Stop delay	↵
		Enter value, for example.. 3 s	↻↻
		Set to 3 s	↵
			↻
11	Alternative Stop level [Off]	View only	↻
12	Nominal current P1 6.0 A	Enter value	↵
		I_N from name plate pump	↻↻
		Set to nominal current	↵
			↻
	Dry run P1 [Off]	View only	↻
	Nominal current P2 6.0	Enter value	↵
		I_N from name plate pump	↻↻
		Set to nominal current	↵
			↻
	Dry run P2 [Off]	View only	↻
	Current alarm delay. 5 s	View only	↻
13	P1 back up start [Off]	View only	↻
	P2 back up start [Off]	View only	↻
14	Exercise run P1 [Off]	View only	↻
	Exercise run P2 [Off]	View only	↻
15	Leakage monitoring.P1 [Off]	Leakage monitoring	
		depending on pump type if present	↵
			↻
		[Only message]	↵
			↻
	Leakage monitoring. P2 [Off]	Leakage monitoring	
		depending on pump type if present	↵
			↻
		[Only message]	↵
			↻
16	Temperature monitoring.P1 [Off]	Temperature monitoring	
		for EX pumps is required if present	↵
			↻
		[Manual reset]	↵
			↻
		Alternative with non Ex and existing temperature monitoring at the pump	↻
		[Auto reset]	↵
		If no temperature monitoring present -view only	↻
	Temperature monitoring.P2 [Off]	Temperature monitoring for EX pumps is required if present	↵
			↻
		[Manual reset]	↵
			↻
		Alternative with non Ex and existing temperature monitoring at the pump	↻
		[Auto reset]	↵
		If no temperature monitoring present - view only	↻
17	Buzzer [On]	View only	↻
	Backlight time. xx min	Enter value, for example. 5 min	↵
		Set to 5 min	↻↻
			↵
			↻
	Alarm relay [Alarm alert]	Alarm relay 1 / Selections: / [Alarm alert] = floating alarm contact	↻
		[High water] = max. water level / [Active alarm] = only if alarm occurs	
	Alert on time 10 min	View only	↻
	Alert pause time 5 min	View only	↻
18	Code [Off]	View only	↻
	Stations ID 1	View only	↻
	CP 212 Ver: xx.x	View only	↻
19	Mains connection		ESC

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3 Connection of a pressure pipe without compressor (open system) including basic settings, with or without EX.
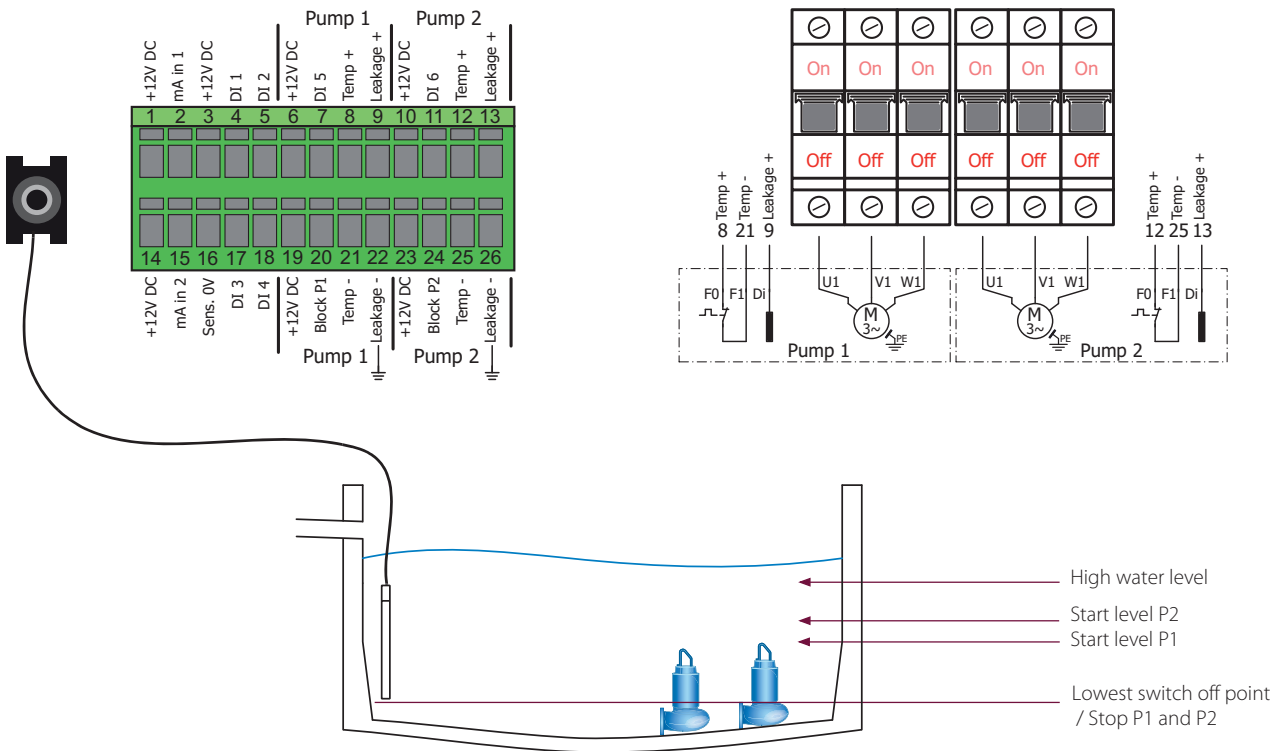
Connection

High water level

Start level P2

Start level P1

Lowest switch off point / Stop P1 and P2

Table 3 Settings

5	Sensor type		Selection sensor	↵
	Pressure pipe without compressor			
6	**Analogue mA1**		Change	↻
			Int. pressure pipe	↵
				↻
	Scaling 100% =	3,50 m	View only	↻
	Scaling 0% = 0,0 m		View only	↻
	Units	[m]	View only	↻
	Filter	2 s	View only	↻
7	High water alarm	xx,x m	Max.water level 0-3.5 m	↵
			Enter value for example 2 m	↻↻
			set to 2 m	↵
				↻
	Dry run alarm	xx,x m	Dry run limit value	↵
			Enter value, for example -3 m	↻↻
			Set to -3 m	↵
				↻

	Start level P1	xx,x m	Start one pump	↵
			Enter value, for example 0,7 m	↻↻
			Set to 0,7 m	↵
				↻
	Stop level P1	xx,x m	Stop one pump	↵
			Enter value, for example 0,2 m	↻↻
			Set to 0,2 m	↵
				↻
	Start level P2	xx,x m	Start two pumps	↵
			Enter value, for example 0,8 m	↻↻
			Set to 0,8 m	↵
				↻
	Stop level P2	xx,x m	Stop two pumps	↵
			Enter value, for example 0,3 m	↻↻
			Set to 0,3 m	↵
				↻
8	Func. back pressure	[Off]	View only	↻
9	Alternation [Stop both]		View only	↻

Identify value of pump pit and register.

From version 1.7 on fixed, scaling 100% and scaling 0% will be not shown anymore (see point 18)

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Table 3   Settings

No.	Setting	Description	Action
10	Max. running pumps [2 pumps]	View only	↻
	P2 connected [Yes]	View only	↻
	Start delay. 3s	View only	↻ ↻
	Stop delay. xxs	Enter stop delay	↵
		Value depends on facility and has to be checked. Make sure that pump will not suck air. **Pressure pipe has to be free.**	↻↻
		Enter value, for example 1s	↵ ↻
11	Alternative stop level [Off]	View only	↻
12	Nominal current P1 6.0 A	Enter value	↵
		I_N from name plate pump	↻↻
		Set to nominal current	↵ ↻
	Dry run P1 [Off]	View only	↻ ↻
	Nominal current P2 6.0 A	Enter value	↵
		I_N from name plate pump	↻↻
		Set to nominal current	↵ ↻
	Dry run P2 [Off]	View only	↻ ↻
	Current alarm delay. 5 s	View only	↻
13	P1 back up start [Off]	View only	↻
	P2 back up start [Off]	View only	↻
14	Exercise run P1 [Off]	Change	↵ ↻
		Exercise run [On]	↵ ↻
	Exercise run P2 [Off]	Change	↵ ↻
		Exercise run [On]	↵ ↻
	Exercice run 1 s	*Value depends on facility and has to be checked. Make sure that pump will not suck air.* **Pressure pipe has to be free.**	↵
		Enter value, for example. 1s	↻
		Set to 1 sec	↵
	Max. still time 24 h	View only	↻
15	Leakage monitoring.P1 [Off]	Leakage monitoring depending on pump type if present	↵ ↻
		[Only message]	↵ ↻
	Leakage monitoring. P2 [Off]	Leakage monitoring depending on pump type if present	↵ ↻
		[Only message]	↵ ↻
16	Temp. monitoring. P1 [Off]	Temperature monitoring *for EX pumps required if present*	↵ ↻
		[Manual reset]	↵ ↻
		Alternative with non Ex and existing temperature monitoring at the pump.	↻
		[Auto reset]	↵
		If no temperature monitoring present - view only	↻
	Temp. monitoring. P2 [Off]	Temperature monitoring *for EX pumps required if present*	↵ ↻
		[Manual reset]	↵ ↻
		Alternative with non Ex and existing temperature monitoring at the pump	↻
		[Auto reset]	↵
		If no temperature monitoring present - view only	↻
17	Buzzer [On]	View only	↻
	Backlight time. xx min	Enter value, for example 5 min	↵
		Set to 5 min	↻↻ ↵
	Alarm Relais [Alarm Alert]	Alarm relay 1	↻ ↻
		Selections: [Alarm alert] = floating alarm contact [High water] = max. water level [Activealarm] = only if alarm occurs	
	Alert on time 10 min	View only	↻
	Alert pause time 5 min	View only	↻
	Code [Off]	View only	↻
18	Stations ID 1	View only	↻
	CP 212 Ver: xx.x	View only	↻
19	Mains connection		ESC

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4 Connection of a pressure pipe with compressor (open system) including basic settings, with or without EX.
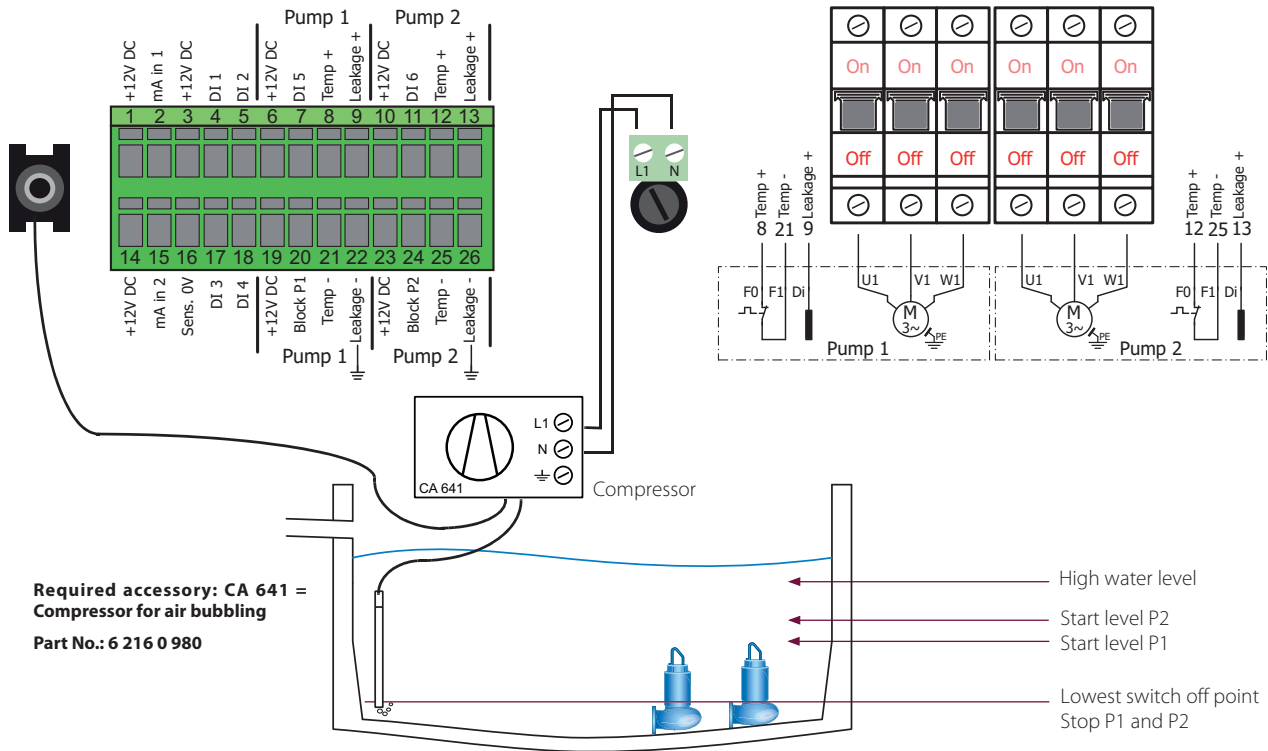
Connection

Required accessory: CA 641 =
Compressor for air bubbling

Part No.: 6 216 0 980

High water level
Start level P2
Start level P1
Lowest switch off point
Stop P1 and P2

Table 4 Settings

5	Sensor type		Selection sensor	↵
	Pressure pipe with compressor			
6	**Analogue mA1**		Change	↻
			Int. pressure pipe	↵
				↻
	Scaling 100% =	3,50 m	View only	↻
	Scaling 0% = 0,0 m		View only	↻
	Units	[m]	View only	↻
	Filter	2 s	View only	↻
7	High water alarm	xx,x m	Max.water level 0-3.5 m	↵
			Enter value, for example 2 m	↻↻
			Set to 2 m	↵
				↻
	Dry run alarm	xx,x m	Dry run limit value	↵
			Enter value, for example -3 m	↻↻
			Set to -3 m	↵
				↻

	Start level P1	xx,x m	Start one pump	↵
			Enter value, for example 0,7 m	↻↻
			Set to 0,7 m	↵
				↻
	Stop level P1	xx,x m	Stop one pump	↵
			Enter value, for example 0,2 m	↻↻
			Set to 0,2 m	↵
				↻
	Start level P2	xx,x m	Start two pumps	↵
			Enter value, for example 0,8 m	↻↻
			Set to 0,8 m	↵
				↻
	Stop level P2	xx,x m	Stop two pumps	↵
			Enter value, for example 0,3 m	↻↻
			Set to 0,3 m	↵
				↻
8	Func. back pressure	[Off]	View only	↻
9	Alternation [Stop both]		View only	↻

Identify value of pump pit and register.

From version 1,7 on fixed, scaling 100% and scaling 0%
will be not shown anymore (see point 18).

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Table 4   Settings

No.	Setting	Action / Description	Symbol
10	Max. running pumps [2pumps]	View only	↻
	P2 connected [Yes]	View only	↻
	Start delay. 3s	View only	↻
	Stop delay. 3 s	View only	↻
11	Alternative stop level [Off]	View only	↻
12	Nominal current P1 6.0 A	Enter value	↵
		I_N from name plate pump	↻↻
		Set to nominal current	↵
			↻
	Dry run P1 [Off]	View only	↻
	Nominal current P2 6.0 A	Enter value	↵
		I_N from name plate pump	↻↻
		Set to nominal current	↵
			↻
	Dry run P2 [Off]	View only	↻
	Current alarm delay. 5 s	View only	↻
13	P1 back up start [Off]	View only	↻
	P2 back up start [Off]	View only	↻
14	Exercise run P1 [Off]	View only	↻
	Exercise run P2 [Off]	View only	↻
15	Leakage monitoring. P1 [Off]	Leakage monitoring depending on pump type if present	↵
			↻
		[Only message]	↵
			↻
	Leakage monitoring. P2 [Off]	Leakage monitoring depending on pump type if present	↵
			↻
		[Only message]	↵
			↻
16	Temp. monitoring. P1 [Off]	Temperature monitoring for EX pumps required if present	↵
			↻
		[Manual reset]	↵
			↻
		Alternative with non Ex and existing temperature monitoring at the pump.	↻
		[Auto reset]	↵
		If no temperature monitoring present - view only	↻
	Temp. monitoring. P2 [Off]	Temperature monitoring for EX pumps required if present	↵
			↻
		[Manual reset]	↵
			↻
		Alternative with non Ex and existing temperature monitoring at the pump	↻
		[Auto reset]	↵
		If no temperature monitoring present - view only	↻
17	Buzzer [On]	View only	↻
	Backlight time. xx min	Enter value, for example 5 min	↵
		Set to 5 min	↻↻
			↵
			↻
	Alarm relay [Alarm alert]	Alarm relay 1	↻
		Selections: [Alarm alert] = floating alarm contact [High water] = max. water level [Active alarm] = only if alarm occurs	
	Alert on time 10 min	View only	↻
	Alert pause time 5 min	View only	↻
	Code [Off]	View only	↻
18	Stations ID 1	View only	↻
	CP 212 Ver: xx.x	View only	↻
19	Mains connection		ESC

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5 Connection of an air bell (closed system) including basic settings, with or without EX.
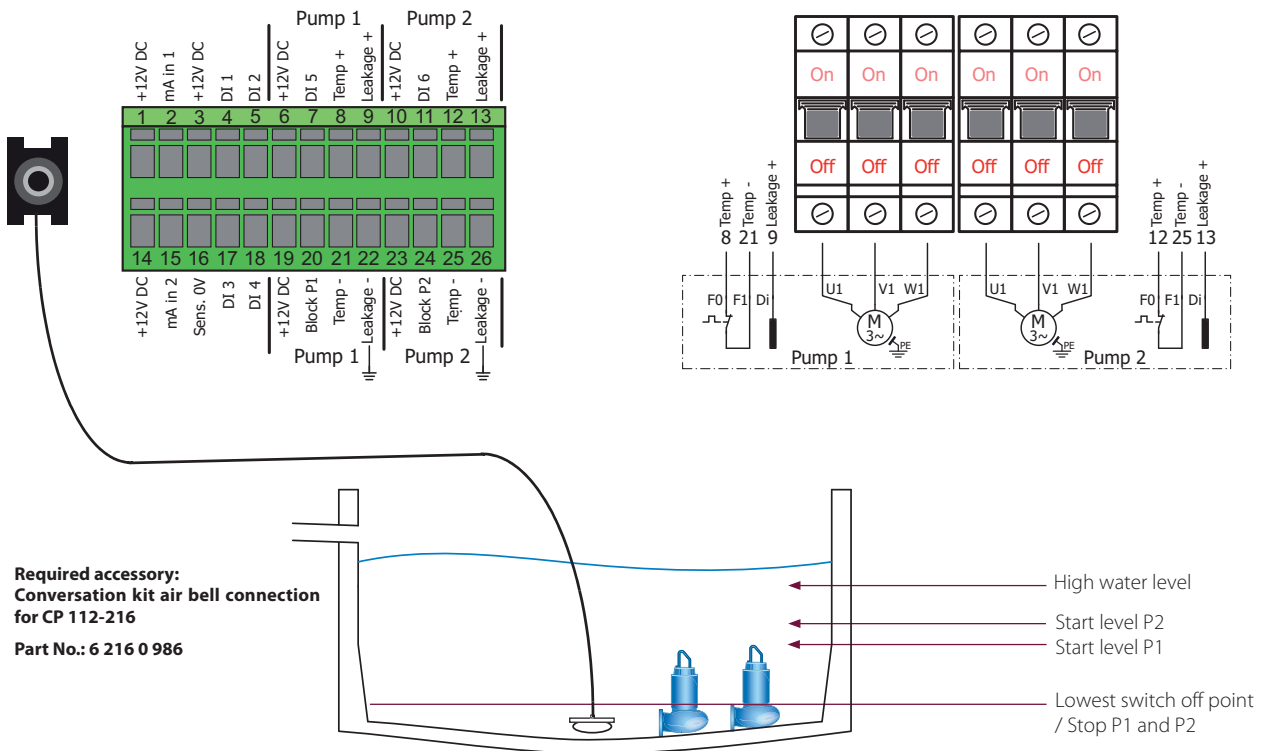
Connection

Required accessory:
Conversation kit air bell connection
for CP 112-216

Part No.: 6 216 0 986

High water level
Start level P2
Start level P1
Lowest switch off point
/ Stop P1 and P2

Table 5 Settings

5	Sensor type		Selection sensor	↵
	Air bell			
6	**Analogue mA1**		Change	↻
			Int. pressure pipe	↵
				↻
	Scaling 100% =	3,50 m	View only	↻
	Scaling 0% = 0,0 m		View only	↻
	Units	[m]	View only	↻
	Filter	2 s	View only	↻
7	High water alarm	xx,x m	Max.water level 0-3.5 m	↵
			Enter value, for example 2 m	↻↻
			Set to 2 m	↵
				↻
	Dry run alarm	xx,x m	Dry run limit value	↵
			Enter value, for example -3 m	↻↻
			Set to -3 m	↵
				↻

	Start level P1	xx,x m	Start one pump	↵
			Enter value, for example 0,7 m	↻↻
			Set to 0,7 m	↵
				↻
	Stop level P1	xx,x m	Stop one pump	↵
			Enter value, for example 0,2 m	↻↻
			Set to 0,2 m	↵
				↻
	Start level P2	xx,x m	Start two pumps	↵
			Enter value, for example 0,8 m	↻↻
			Set to 0,8 m	↵
				↻
	Stop level P2	xx,x m	Stop two pumps	↵
			Enter value, for example 0,3 m	↻↻
			Set to 0,3 m	↵
				↻
8	Func. back pressure	[Off]	View only	↻
9	Alternation	[Stop both]	View only	↻

Identify value of pump pit and register.

From version 1,7 on fixed , scaling100% and scaling 0%

will be not shown anymore (see point 18).

Table 5 Settings

10	Max. running pumps [2 pumps]	View only	↻			[Manual reset]	↵
							↻
	P2 connected [Yes]	View only	↻			Alternative with non Ex and existing temperature monitoring at the pump.	
							↻
	Start delay. 3s	View only	↻				
	Stop delay. 3 s	View only	↻			[Auto reset]	↵
						If no temperature monitoring present - view only	↻
11	Alternative stop level [Off]	View only	↻		Temp. monitoring.P2 [Off]	Temperature monitoring	
12	Nominal current P1 6.0	Enter value	↵			for EX pumps required if present	↵
		I_N from name plate pump	↻↻				↻
		Set to nominal current	↵			[Manual reset]	↵
			↻				↻
	Dry run P1 [Off]	View only	↻			Alternative with non Ex and existing temperature monitoring at the pump	
	Nominal current P2 6.0 A	Enter value	↵				↻
		I_N from name plate pump	↻↻				
		Set to nominal current	↵			[Auto reset]	↵
			↻			If no temperature monitoring present - view only	↻
	Dry run P2 [Off]	View only	↻				
	Current alarm delay. 5 s	View only	↻	17	Buzzer [On]	View only	↻
13	P1 back up start [Off]	View only	↻		Backlight time. xx min	Enter value, for example 5 min	↵
						Set to 5 min	↻↻
	P2 back up start [Off]	View only	↻				↵
							↻
14	Exercise run P1 [Off]	View only	↻		Alarm relay [Alarm alert]	Alarm relay 1	↻
	Exercise run P2 [Off]	View only	↻			Selections:	
						[Alarm alert] = floating alarm contact	
15	Leakage monitoring. P1 [Off]	Leakage monitoring				[High water] = max. water level	
		depending on pump type if present	↵			[Active alarm] = only if alarm occurs	
			↻		Alert on time 10 min	View only	↻
		[Only message]	↵				
			↻		Alert pause time 5 min	View only	↻
	Leakage monitoring. P2 [Off]	Leakage monitoring			Code [Off]	View only	↻
		depending on pump type if present	↵	18	Stations ID 1	View only	↻
			↻				
		[Only message]	↵		CP 212 Ver: xx.x	View only	↻
			↻				
16	Temp. monitoring.P1 [Off]	Temperature monitoring		19	Mains connection		ESC
		for EX pumps required if present	↵				
			↻				

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6 Connection of 4 float switches without EX including basic settings.

Connection
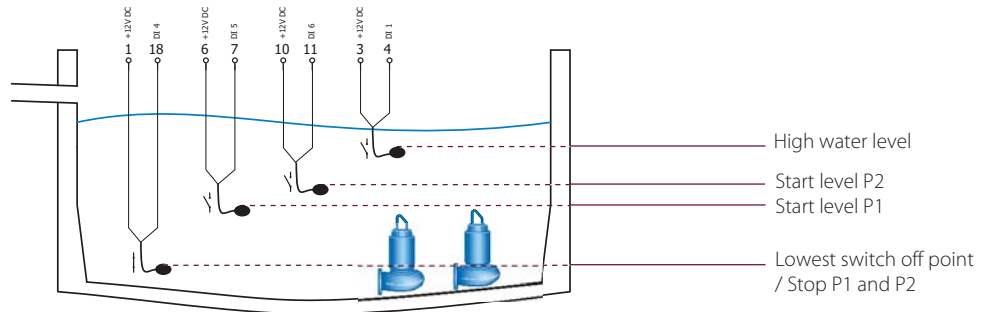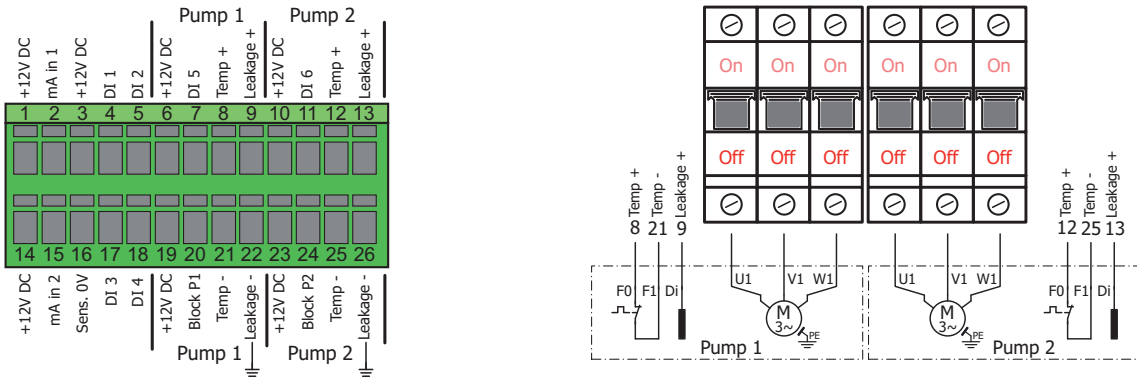
Table 6 Settings

5	Sensor type	Selection sensor	↵			Start delay.	3 s	View only	↻
	Float switches: 4 units								
6	**Analogue mA1**	Change	↻			Stop delay.	3 s	Enter stop delay	↵
		Start/Stop float switches	↵					Enter value, for example 1 sec	↻↻
			↻					Set to 1 sec	↵
	Start criteria [2Start float switch]	View only	↻						↻
	Stop criteria [Stop float switch]	View only	↻		10	Alternative stop level [Off]		View only	↻
	Stop float switch	With standard float switches	↵		11	Nominal current P1 6.0 A		Enter value	↵
	norm. closed / norm. open	change to normally open.	↻					I_N from name plate pump	↻↻
	[Normally closed]		↵					Set to nominal current	↵
			↻						↻
						Dry run P1	[Off]	View only	↻
7	Func. back pressure [Off]	View only	↻			Nominal current P2 6.0 A		Enter value	↵
8	Alternation [Stop both]	View only	↻					I_N from name plate pump	↻↻
9	Max. running pumps [2 pumps]	View only	↻					Set to nominal current	↵
									↻
	P2 connected [Yes]	View only	↻			Dry run P2	[Off]	View only	↻
						Current alarm delay.	5 s	View only	↻

Table 6   Settings

#	Setting	Value	Description	Key
12	P1 back up start	[Off]	Change	↵
				↻
			P1 back up start [On]	↵
				↻
	P2 back up start	[Off]	Change	↵
				↻
			P2 back up start [On]	↵
				↻
	Back up run time	[30 s]	Pumps will stop after xxx sec. after the alarm float switch has switched off.	
				↵
				↻↻
			Value depends on facility and has to be checked. **Attention: Make sure that pump will not suck air!**	↵
				↻
13	Exercise run P1	[Off]	View only	↻
	Exercise run P2	[Off]	View only	↻
14	Leakage monitoring. P1	[Off]	Leakage monitoring	
			depending on pump type if present	↵
				↻
			[Only message]	↵
				↻
	Leakage monitoring. P2	[Off]	Leakage monitoring	
			depending on pump type if present	↵
				↻
			[Only message]	↵
				↻
15	Temp. monitoring.P1	[Off]	Temperature monitoring	
			for EX pumps required if present	↵
				↻
			[Manual reset]	↵
				↻
			Alternative with non Ex and existing temperature monitoring at the pump	
				↻
			[Auto reset]	↵
			If no temperature monitoring present - view only	↻

#	Setting	Value	Description	Key
	Temp. monitoring. P2	[Off]	Temperature monitoring	
			for EX pumps required if present	↵
				↻
			[Manual reset]	↵
				↻
			Alternative with non Ex and existing temperature monitoring at the pump.	
				↻
			[Auto reset]	↵
			If no temperature monitoring present - view only	↻
16	Buzzer	[On]	View only	↻
	Backlight time.	xx min	Enter value, for example 5 min	↵
			Set to 5 min	↻↻
				↵
				↻
	Alarm relay	[Alarm alert]	Alarm relay 1	↻
			Selections: [Alarm alert] = floating alarm contact [High water] = max. water level [Active alarm] = only if alarm occurs	
	Alert on time	10 min	View only	↻
	Alert pause time	5 min	View only	↻
	Code	[Off]	View only	↻
18	Stations ID	1	View only	↻
	CP 212 Ver:	xx.x	View only	↻
19	Mains connection			ESC

EN

7 Connection of 3 float switches without EX including basic settings.

Connection

Pump 1 terminals: +12V DC (1), mA in 1 (2), +12V DC (3), DI 1 (4), DI 2 (5), +12V DC (6), DI 5 (7), Temp + (8), Leakage + (9), +12V DC (10), DI 6 (11), Temp + (12), Leakage + (13)

+12V DC (14), mA in 2 (15), Sens. 0V (16), DI 3 (17), DI 4 (18), +12V DC (19), Block P1 (20), Temp - (21), Leakage - (22), +12V DC (23), Block P2 (24), Temp - (25), Leakage - (26)

Pump 1 / Pump 2

High water level
Start level P1
Lowest switch off point / Stop P1 and P2
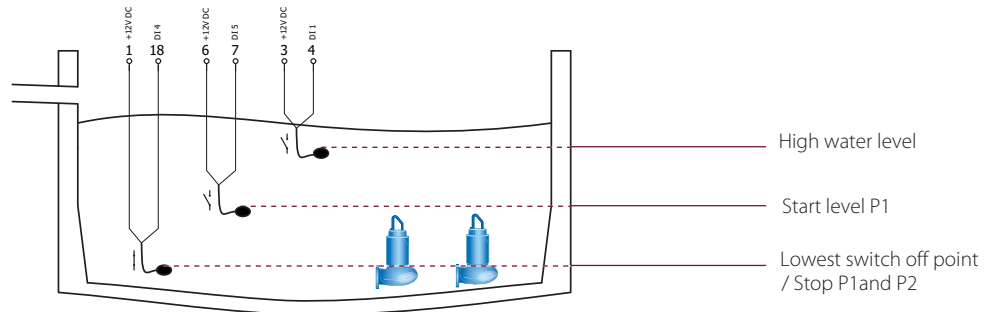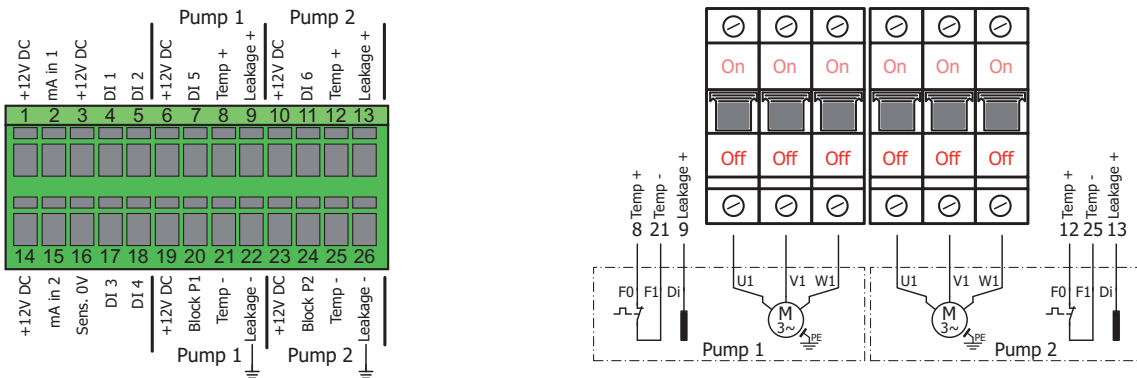
Table 7 Settings

5	Sensor type	Selection sensor	↵
	Float switches: 3 units		
6	**Analogue mA1**	Change	↻
		Start/Stop float switch	↵
			↻
	Start criteria [2 start/stop float]	Change	↵
		[1 float switch + time]	↻
			↵
			↻
	Start time for P2 [120 s]	Pump 2 will start after xxx sec	↵
		in addition to Pump 1.	
			↻↻
		Value depends on facility and	↵
		has to be checked.	↻
	Stop criteria [Stop float switch]	View only	↻
	Stop switch float NO/NC [Close]	With standard float switch	↵
		change to NC	↻
			↵
7	Func. back pressure [Off]	View only	↻

8	Alternation [Stop both]	View only	↻
9	Max. running pumps [2 pumps]	View only	↻
	P2 connected [Yes]	View only	↻
	Start delay. 3 s	View only	↻
	Stop delay. 3 s	Enter Stop delay	↵
		Enter value, for example 1 sec	↻↻
		Set to 1 sec	↵
			↻
10	Alternative stop level [Off]	View only	↻
11	Nominal current P1 6.0 A	Enter value	↵
		I_N from name plate pump	↻↻
		Set to nominal current	↵
			↻
	Dry run P1 [Off]	View only	↻

Identify value of pump pit and register.

Table 7   Settings

	Nominal current P2 6.0 A	Enter value	↵	→		Alternative with non Ex and existing temperature monitoring at the pump. ↻
		I_N from name plate pump	↻↻			
		Set to nominal current	↵			[Auto reset] ↵
			↻			If no temperature monitoring present - view only ↻
	Dry run P2 [Off]	View only	↻			
	Current alarm delay. 5 s	View only	↻		Temp. monitoring. P2 [Off]	Temperature monitoring
12	P1 back up start [Off]	Change	↵			*for EX pumps required if present* ↵
			↻			↻
		P1 back up start [On]	↵			[Manual reset] ↵
			↻			↻
	P2 back up start [Off]	Change	↵			Alternative with non Ex and existing temperature monitoring at the pump. ↻
			↻			
		P2 back up start [On]	↵			[Auto reset] ↵
			↻			If no temperature monitoring present - view only ↻
	Back up run time [30 s]	Pumps will stop after xxx sec. after the alarm float switch has switched off..	↵		16	Buzzer [On] View only ↻
			↻↻			Backlight time. xx min	Enter value, for example 5 min ↵
		Value depends on facility and has to be checked.	↵			Set to 5 min ↻↻
			↻			↵
		Attention: Make sure that pump will not suck air!				Alarm relay [Alarm alert]	Alarm relay 1 ↻
13	Exercise run P1 [Off]	View only	↻			Selections: [Alarm alert] = floating alarm contact [High water] = max. water level [Active alarm] = only if alarm occurs
	Exercise run P2 [Off]	View only	↻			Alert on time 10 min	View only ↻
14	Leakage monitoring. P1 [Off]	Leakage monitoring depending on pump type if present	↵			Alert pause time 5 min	View only ↻
			↻			Code [Off]	View only ↻
		[Only message]	↵		17	Stations ID 1	View only ↻
			↻			CP 212 Ver: xx.x	View only ↻
	Leakage monitoring. P2 [Off]	Leakage monitoring depending on pump type if present	↵		18	Mains connection	ESC
			↻			
		[Only message]	↵			
			↻			
15	Temp. monitoring.P1 [Off]	Temperature monitoring				
		for EX pumps required if present	↵			
			↻			
		[Manual reset]	↵			
			↻			

EN

8 Connection of 2 float switches without EX including basic settings.

Connection

High water level

Start level P1
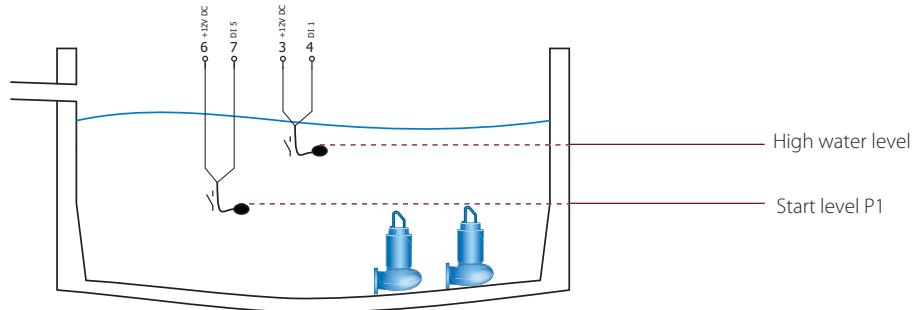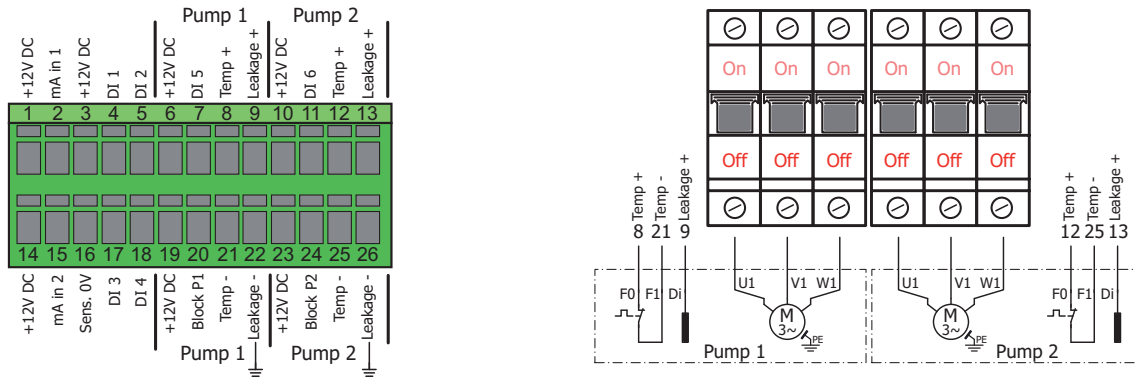
Table 8 Settings

5	Sensor type **Float switches: 2 units**	Selection sensor	↵
6	**Analogue mA1**	Change	↻
		Start/Stop float switch	↵
			↻
	Start criteria [2 Start /stop float]	Change	↵
		[1 float switch + time]	↻
			↵
			↻
	Start time for P2 [120 s]	Pump 2 will start after xxx sec. in addition to Pump 1.	↵
			↻↻
		Value depends on facility and has to be checked.	↵
			↻
	Stop criteria [Stop float switch]	Change	↵
		[Stop via time]	↻
			↵
			↻
	Time to stop [120 s]	Pump will stop after xxx sec. after start float switch has switched off.	
			↵
			↻↻

		Value depends on facility and has to be checked. **Attention:** **Make sure that pump will not suck air!**	↵ ↻
7	Func. back pressure [Off]	View only	↻
8	Alternation [Stop both]	View only	↻
9	Max. running pumps [2 pumps]	View only	↻
	P2 connected [Yes]	View only	↻
	Start delay. 3 s	View only	↻
	Stop delay. 3 s	Enter Stop delay	↵
		Enter value, for example 1 sec	↻↻
		Set to 1 sec	↵
			↻
10	Alternative stop level [Off]	View only	↻

Identify value of pump pit and register.

Table 8 Settings

11	Nominal current P1 6.0 A	Enter value	↵
		I_N from name plate pump	↻↻
		Set to nominal current	↵
			↻
	Dry run P1 [Off]	View only	↻
	Nominal current P2 6.0 A	Enter value	↵
		I_N from name plate pump	↻↻
		Set to nominal current	↵
			↻
	Dry run P2 [Off]	View only	↻
	Current alarm delay. 5 s	View only	↻

12	P1 back up start [Off]	Change	↵
			↻
		P1 back up start [On]	↵
			↻
	P2 back up start [Off]	Change	↵
			↻
		P2 back up start [On]	↵
			↻
	Back up run time [30 s]	Pumps will stop after xxx sec. after start float switch has switched off.	
			↵
			↻↻
		Value depends on facility and has to be checked.	↵
		Attention:	↻
		Make sure that pump will not suck air!	

13	Exercise run P1 [Off]	View only	↻
	Exercise run P2 [Off]	View only	↻

14	Leakage monitoring.P1 [Off]	Leakage monitoring	
		depending on pump type if present	↵
			↻
		[Only message]	↵
			↻
	Leakage monitoring.P2 [Off]	Leakage monitoring	
		depending on pump type if present	↵
			↻
		[Only message]	↵
			↻

15	Temp. monitoring. P1 [Off]	Temperature monitoring	
		for EX pumps required if present	↵
			↻
		[Manual reset]	↵
			↻
		Alternative with non Ex and existing temperature monitoring at the pump.	↻
		[Auto reset]	↵
		If no temperature monitoring present - view only	↻
	Temp. monitoring. P2 [Off]	Temperature monitoring	
		for EX pumps required if present	↵
			↻
		[Manual reset]	↵
			↻
		Alternative with non Ex and existing temperature monitoring at the pump	↻
		[Auto reset]	↵
		If no temperature monitoring present - view only	↻

16	Buzzer [On]	View only	↻
	Backlight time. xx min	Enter value, for example 5 min	↵
		Set to 5 min	↻↻
			↵
			↻
	Alarm relay [Alarm alert]	Alarm relay 1	↻
		Selections:	
		[Alarm alert] = floating alarm contact	
		[High water] = max. water level	
		[Active alarm] = only if alarm occurs	
	Alert on time 10 min	View only	↻
	Alert pause time 5 min	View only	↻
	Code [Off]	View only	↻

17	Stations ID 1	View only	↻
	CP 212 Ver: xx.x	View only	↻
18	Mains connection		ESC

9   Connection of one float for "back up start" without EX, for high water (for example with a HSC2 sensor).
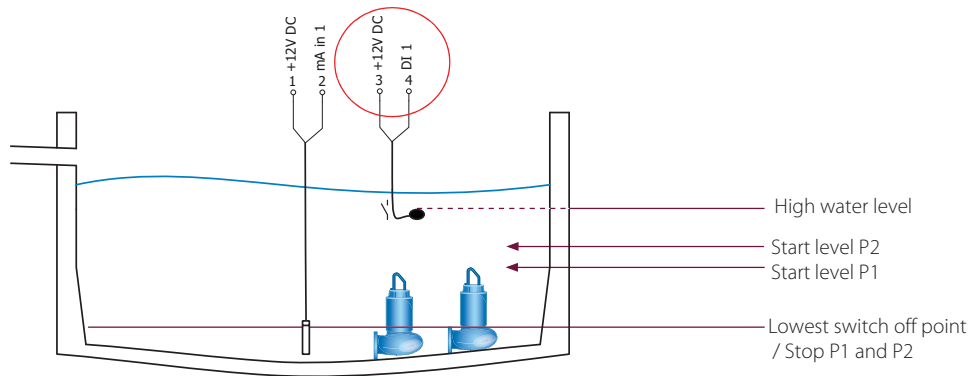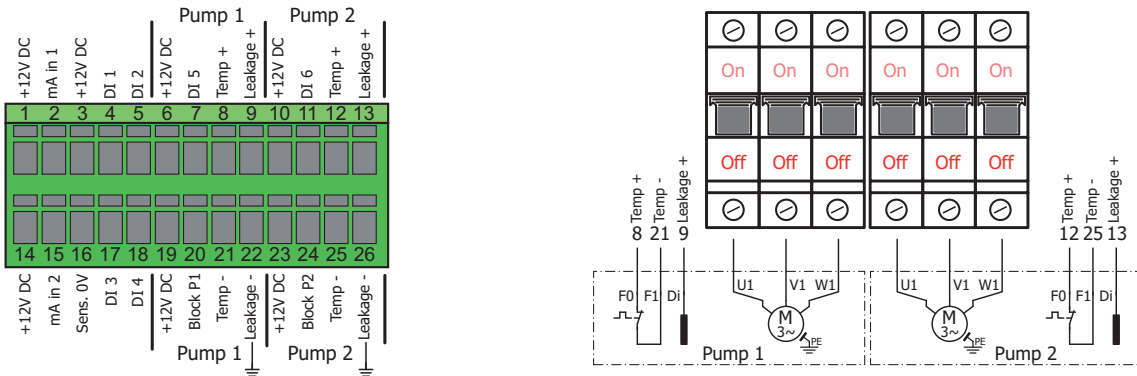
Connection

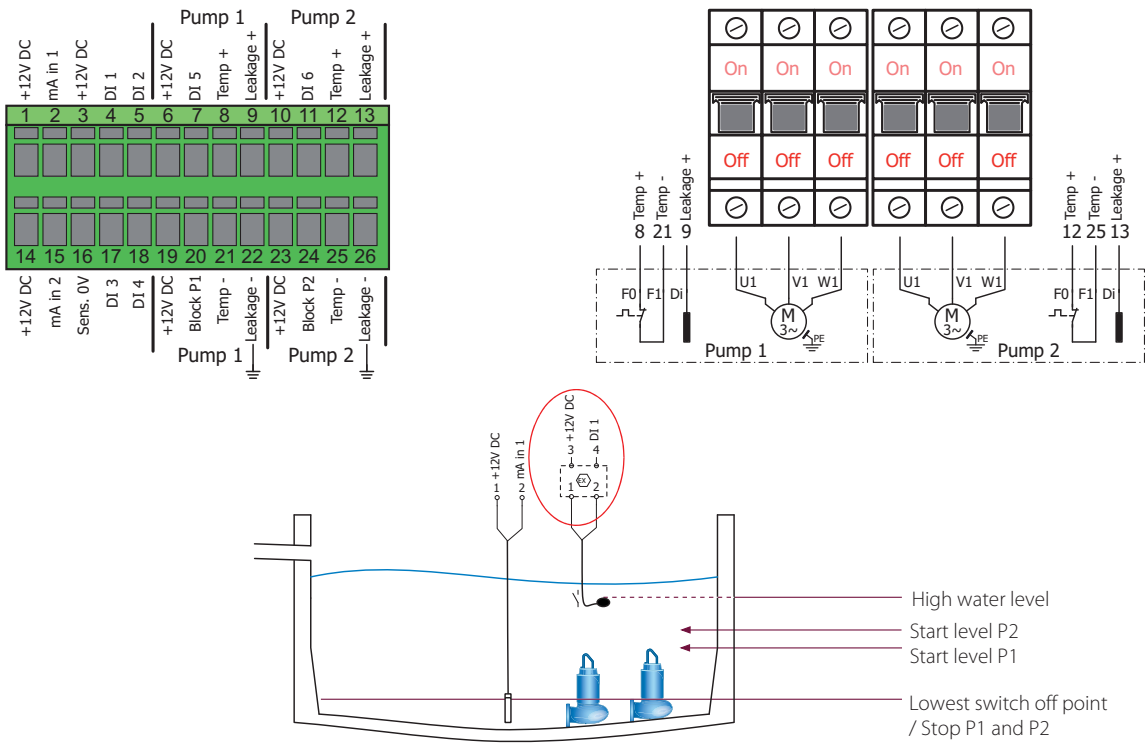*Table 9   Settings*

In case of using an additional float switch (Normally closed) as max. alarm, pos.13 has to be adapted as follows.
The settings are valid for following level control variations:

- Analogue sensor (HSC2)
- Pressure pipe with or without compressor for air bubbling
- Air bell

Please note that this connection variation is only valid for none Ex pumps.

⑬	P1 back up start [Off]	Change	↵
			↻
		P1 back up start [On]	↵
			↻
	P2 back up start [Off]	Change	↵
			↻
		P2 back up start [On]	↵
			↻
	Back up run time [30 s]	Pumps will stop after xxx sec. after	
		alarm float switch has switched off.	↵
			↻↻
		Value depends on facility	↵
		and has to be checked.	↻
		Attention:	
		Make sure that pump will not suck air!	

10 Connection of one float switch for "back up start" with EX, for high water (for example with a HSC2Ex sensor).
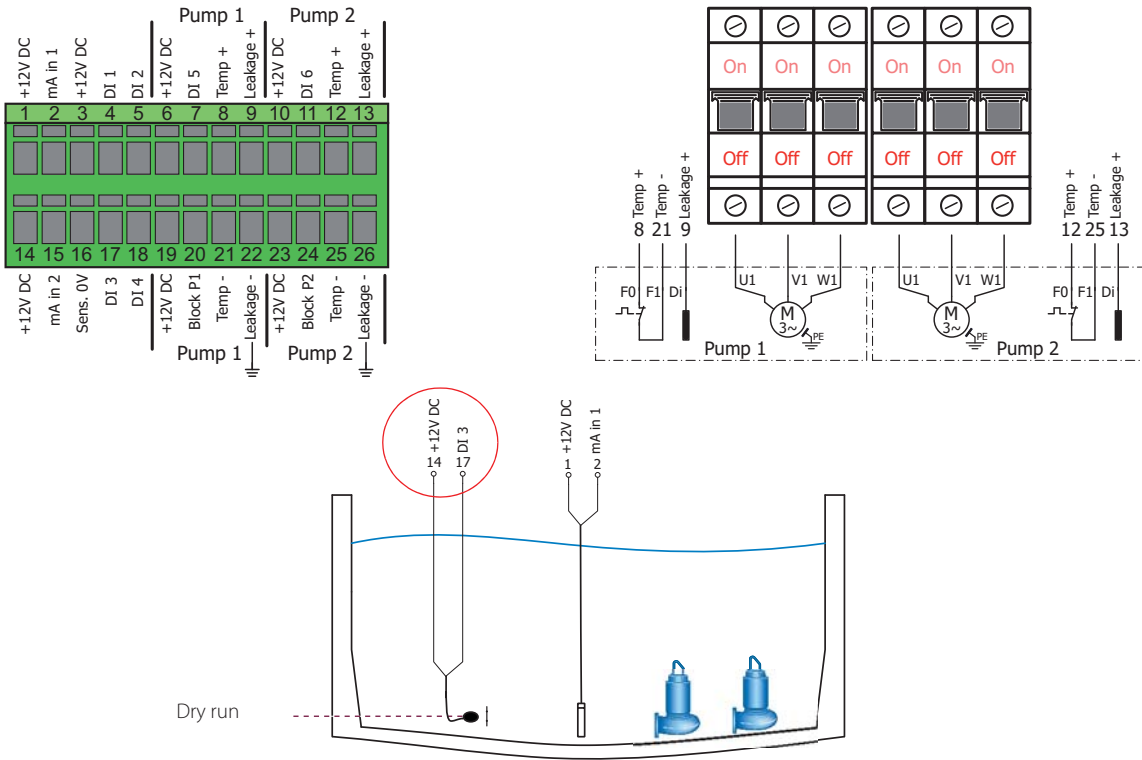
Connection

Table 10   Settings

In case of using an additional float switch (Normally closed) as max. alarm, Pos.13 -"back up start" has to be adapted as follows. The settings are valid for following level control variations:

- Analoge sensor (HSC2Ex)
- Pressure pipe with or without compressor for air bubbling
- Air bell

13	P1 back up start	[Off]	Change	↵
				↻
			P1 back up start [On]	↵
				↻
	P2 back up start	[Off]	Change	↵
				↻
			P2 back up start [On]	↵
				↻
	Back up run time	[30 s]	Pumps will stop after xxx sec. after	
			alarm float switch has switched	↵
			off.	↻↻
			Value depends on facility	↵
			and has to be checked.	↻
			Attention:	
			Make sure that pump will not suck air!	

EN

11 Connection of dry run protection (for example of an analog sensor HSC2) without EX.
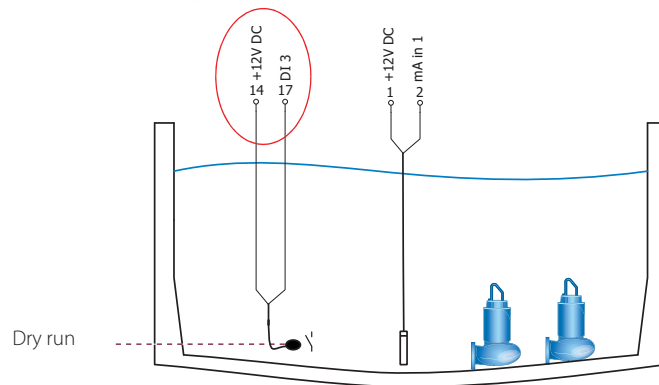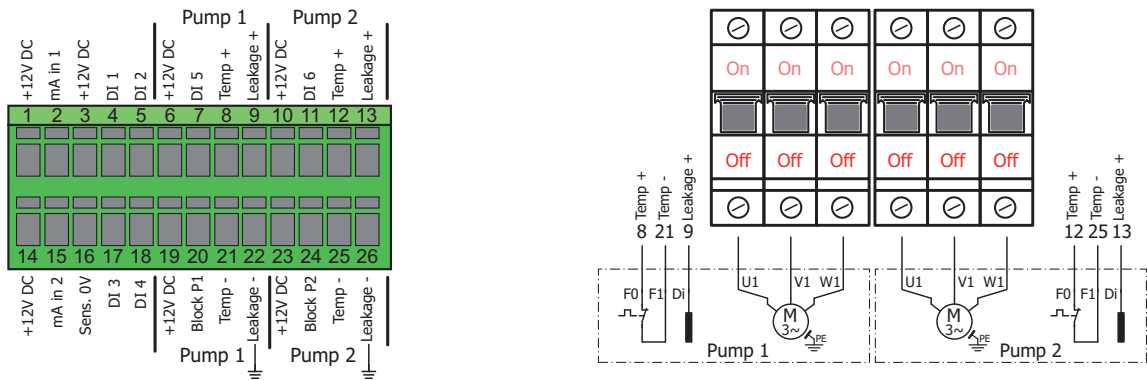
Connection

NOTE: No need to change the menu. The dry run float switch will be active after it is connected. The float switch has to be normally closed.

12 Connection of dry run protection (for example of an analog sensor HSC2Ex) according ATEX at the Ex area.
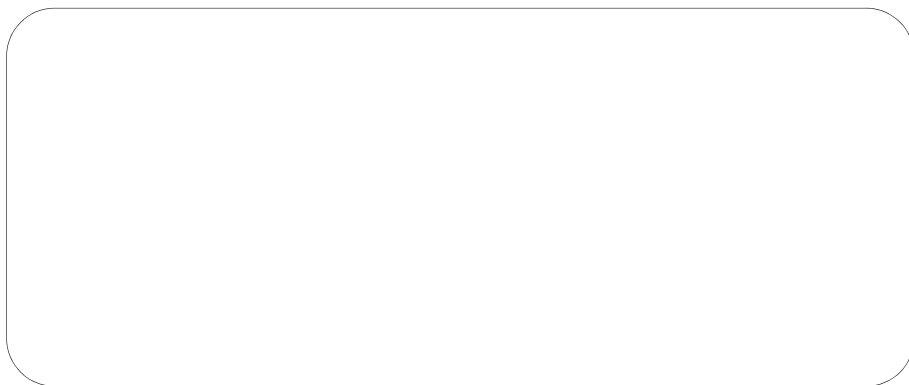
Connection

NOTE: No need to change the menu. The dry run float switch will be active after it is connected. The float switch has to be normally open.

Attention: If a pump station is operated in an hazardous environment, in accordance with the ATEX Directive 1999/92/EC (Zone declaration has to be done by the user), an additional dry run float switch is required.

SULZER

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