

# Conex<sup>®</sup> DIA-1, DIA-2, DIA-2Q

Measuring amplifiers and controllers  
Preassembled systems  
50/60 Hz



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## Conex® DIA

### Measuring amplifiers and controllers

The Conex® DIA measuring amplifiers and controllers come in three versions:

- Conex® DIA-1
- Conex® DIA-2
- Conex® DIA-2Q.

### Straight talk for everyone

The Conex® DIA (**D**osing **I**nstrumentation **A**dvanced) series is designed to be easy to use for non-experts. A simple plain-text menu allows you to complete your tasks quickly and easily without wasting any time on learning and deciphering codes. The units speak no less than nine languages, allowing virtually anyone to navigate the self-explanatory menus.

Conex® units monitor themselves, ensuring high water quality at all time. During calibration, they carry out a plausibility check to prevent mishaps. The logbook function records sensor data and calibration values complete with date and time. The units also keep an eye on the temperature and make adjustments as necessary.

## Conex® DIA-1

### Universal measuring amplifier and controller

The Conex® DIA-1 is a sophisticated unit, ideal for use in many disinfection applications.

The easy-to-navigate user interface speaks nine languages. You also get access to features such as:

- automatic self-adaption calibration
- manual or automatic temperature compensation
- logbook function.

The Conex® DIA-1 can be incorporated in compact, wall-mounted, preassembled systems with the measuring cells that suit you.

Display languages: German, English, French, Italian, Spanish, Portuguese, Dutch, Polish and Russian.

### Monitoring and control parameters

- chlorine
- chlorine dioxide
- ozone
- hydrogen peroxide
- peracetic acid
- pH
- redox (ORP)
- fluoride.



Fig. 1 Conex® DIA-1

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## Conex<sup>®</sup> DIA-2

### Dual measuring amplifier and controller

The Conex<sup>®</sup> DIA-2 functions like two DIA-1 controllers combined in a single unit. This allows you to measure and control two parameters at the same time. Both parameters are shown on the display.

This two-in-one approach minimises space requirements and installation time - and gives you all the Conex<sup>®</sup> benefits.

Display languages: German, English, French, Italian, Spanish, Portuguese, Dutch, Polish, Russian.

### Monitoring and control parameters, divided into two groups:

#### Parameter group 1

- chlorine
- chlorine dioxide
- ozone
- hydrogen peroxide.

#### Parameter group 2

- pH.



Fig. 2 Conex<sup>®</sup> DIA-2

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## Conex<sup>®</sup> DIA-2Q

### Dual measuring amplifier and multi-functional controller

The Conex<sup>®</sup> DIA-2Q is a special version of the DIA-2, particularly suitable for variable flow rates. It has all the features of the DIA-2, but allows you to measure and control more than two parameters at the same time.

Display languages: German, English, French, Italian, Spanish, Portuguese, Dutch, Polish, Russian.

### Monitoring and control parameters, divided into two groups:

#### Parameter group 1

- chlorine
- chlorine dioxide
- ozone
- hydrogen peroxide
- peracetic acid.

#### Parameter group 2

- pH
- fluoride
- redox (ORP).



Fig. 3 Conex<sup>®</sup> DIA-2Q

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In the following chapters, the Conex<sup>®</sup> DIA measuring amplifiers and controllers are simply referred to as “controllers”.

## Conex<sup>®</sup> DIA preassembled systems

Our preassembled systems take our tried-and-tested electrodes and Conex<sup>®</sup> DIA controllers, combine them to suit specific applications, and mount them on a plate ready for quick installation.

Each combination is available with a choice of measuring cells and cleaning methods.



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Fig. 4 Conex® DIA-1 preassembled system

**Conex® DIA preassembled system for chlorine (Cl<sub>2</sub>), chlorine dioxide (ClO<sub>2</sub>), ozone (O<sub>3</sub>), pH or redox (ORP)**

The system is equipped with one of these controllers:

- Conex® DIA-1: for Cl<sub>2</sub> or ClO<sub>2</sub> or O<sub>3</sub>
- Conex® DIA-2: for pH and Cl<sub>2</sub> (or ClO<sub>2</sub> or O<sub>3</sub>)
- Conex® DIA-2Q: for pH (or redox / ORP) and Cl<sub>2</sub> (or ClO<sub>2</sub> or O<sub>3</sub>)

The system is equipped with one of these AquaCells:

- D1, pressure-proof, with cleaning motor
- D2, pressure-proof, with hydro-mechanical cleaning
- D3, pressureless, with hydro-mechanical cleaning.

**Features**

- Mounted on a base plate and wired ready for connection
- With prepared cable sets
- With Cl<sub>2</sub> electrode
- With optional pH electrode
- With temperature compensation.

**Conex® preassembled system for hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) and peracetic acid (PAA)**

The system is equipped with Conex® DIA-1 controller.

**Features**

- With Conex® DIA-1 and diaphragm-covered measuring cell
- Mounted on a base plate and wired ready for connection
- With a measuring range of 0 to 2000 mg/l for H<sub>2</sub>O<sub>2</sub> or PAA.

**Conex® preassembled system for pH or redox (ORP)**

The system is equipped with Conex® DIA-1 controller:

**Features**

- With sensors for pH or redox (ORP)
- Mounted on a base plate and wired ready for connection
- With prepared cable sets
- With temperature compensation.

This preassembled system incorporates:

- temperature sensor with 1-metre cable
- pH single-rod probe with 1-metre cable and ceramic or PTFE diaphragm.

**Conex® preassembled system for fluoride (F<sup>-</sup>)**

The system is equipped with Conex® DIA-1 controller.

**Features**

- With Conex® DIA-1 and fluoride ion-selective electrode in a flow-type holder
- Mounted on a base plate and wired ready for connection
- With a measuring range of 0 to 2 mg/l for fluoride.

**Note:** For details on AquaCells and other measuring cells, single-rod probes and electrodes see separate data booklet, "Measurement and Control Accessories".

## Type key, Conex® DIA controllers

Example: DIA-2Q 1-D/HP/PA 2-P/R/F Q -W -G

Example:	DIA	-2Q	1-D/HP/PA	2-P/R/F	Q	-W	-G
<b>Measuring amplifier and controller</b>							
DIA-1	Dosing Instrumentation Advanced with 1 input						
DIA-2	Dosing Instrumentation Advanced with 2 inputs						
DIA-2Q	Dosing Instrumentation Advanced with 2 inputs and flow measurement						
<b>Input parameter 1</b>							
P	pH						
R	Redox (ORP)						
D	Chlorine (Cl <sub>2</sub> ), chlorine dioxide (ClO <sub>2</sub> ) or ozone (O <sub>3</sub> )						
HP	Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> )						
PA	Peracetic acid (PAA)						
F	Fluoride (F <sup>-</sup> )						
<b>Input parameter 2</b>							
P	pH						
R	Redox (ORP)						
F	Fluoride (F <sup>-</sup> )						
<b>Variant</b>							
Q	Flow compensation						
<b>Mounting</b>							
W	Wall-mounted						
P	Panel-mounted						
<b>Voltage</b>							
G	1 x 230 V, 50/60 Hz						
H	1 x 120 V, 50/60 Hz						
I	24 VDC						

\* Only available as prepacked

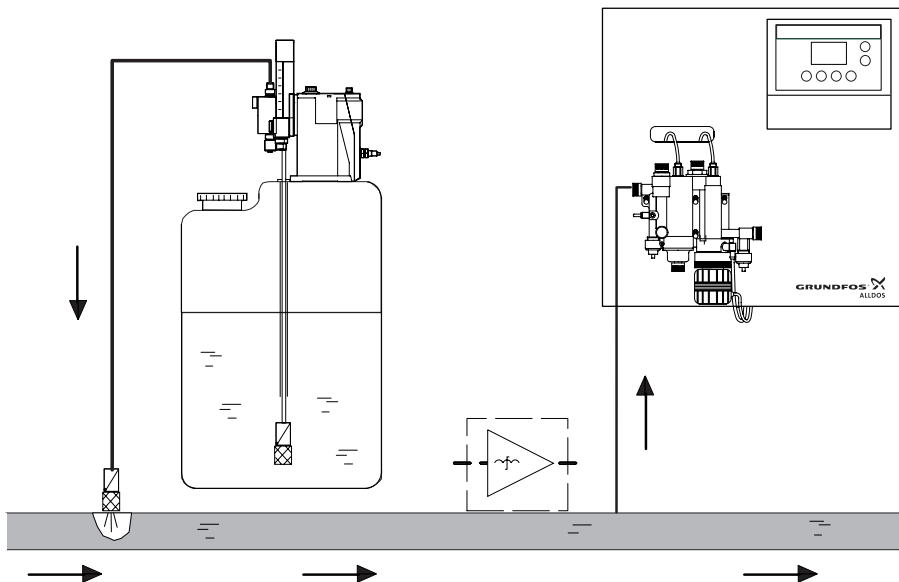
## Type key, Conex® DIA preassembled systems

Example: DIA-1-A, D1-P-PT-PCB-QS-T, W-G

Example:	DIA	-1	-A	D1	-P	-PT	-PCB	-QS	-T	W	-G
<b>Units for measurement and control</b>											
DIA-1	Dosing Instrumentation Advanced with one input										
DIA-2	Dosing Instrumentation Advanced with two inputs										
DIA-2Q	Dosing Instrumentation Advanced with one input and flow measurement										
<b>Assembly</b>											
A	Preassembled										
<b>Cell type</b>											
D1	Pressure-proof, with cleaning motor										
D2	Pressure-proof, with hydro-mechanical cleaning										
D3	Pressureless, with hydro-mechanical cleaning										
P/R	pH or redox (ORP) only										
F	Fluoride only										
PA/HP	Peracetic acid or hydrogen peroxide only										
<b>Pressure-retention valve</b>											
P	With pressure-retention valve										
X	Without pressure-retention valve										
<b>Disinfection electrodes</b>											
AU	Gold (for cell types D1, D2 and D3 only)										
PT	Platinum (for cell types D1, D2 and D3 only)										
X	No disinfection measurement										
<b>Other electrodes</b>											
PCB	pH, ceramic diaphragm, with buffer solution										
PTB	pH, PTFE diaphragm, with buffer solution										
PKB	pH, KCl filling, with buffer solution										
PGB	pH, gel filling, with buffer solution										
PCX	pH, ceramic diaphragm, without buffer solution										
PTX	pH, PTFE diaphragm, without buffer solution										
PKX	pH, KCL filling, without buffer solution										
PGX	pH, gel filling, without buffer solution										
RCB	Redox (ORP), ceramic diaphragm, with buffer solution										
RTB	Redox (ORP), PTFE diaphragm, with buffer solution										
RCX	Redox (ORP), ceramic diaphragm, without buffer solution										
RTX	Redox (ORP), PTFE diaphragm, without buffer solution										
F	Fluoride										
PA	Peracetic acid										
HP	Hydrogen peroxide										
X	No electrode										
<b>Flow sensor</b>											
QS	Flow sensor integrated										
X	No flow sensor										
<b>Temperature sensor</b>											
T	With Pt100										
X	No temperature sensor										
<b>Mounting</b>											
W	Wall-mounted										
<b>Voltage</b>											
G	1 x 230 V, 50/60 Hz										
H	1 x 120 V, 50/60 Hz										
I	24 VDC										

## Conex® DIA controllers

Features	Conex® DIA-1	Conex® DIA-2	Conex® DIA-2Q
<b>Input parameter group 1</b>			
pH	●		
Redox (ORP)	●		
Chlorine (Cl <sub>2</sub> )	●	●	●
Chlorine dioxide (ClO <sub>2</sub> )	●	●	●
Ozone (O <sub>3</sub> )	●	●	●
Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> )	●	●	●
Peracetic acid (PAA)	●		●
Fluoride (F <sup>-</sup> )	●		
<b>Input parameter group 2</b>			
pH		●	●
Redox (ORP)			●
Fluoride (F <sup>-</sup> )			●
<b>Input, miscellaneous</b>			
Flow sensor	●	●	●
Flow compensation			●
Controller stop (potentialfree contact)	●	●	●
<b>Mounting options</b>			
Wall-mounted	●	●	●
Panel-mounted	●	●	●
<b>Voltage</b>			
1 x 230 V, 50/60 Hz	●	●	●
1 x 120 V, 50/60 Hz	●	●	●
24 VDC	●	●	●



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Fig. 5 Compound-loop control for Conex® DIA-2Q (combined controller)



## Conex® DIA preassembled systems

Features	Conex® DIA-1-A	Conex® DIA-2-A	Conex® DIA-2Q-A
<b>Cell type</b>			
Pressure-proof with cleaning motor	●	●	●
Pressure-proof with hydro-mechanical cleaning	●	●	●
Pressureless with hydro-mechanical cleaning	●	●	●
pH or redox (ORP) only	●	●	●
Fluoride (F <sup>-</sup> ) only	●		
Peracetic acid (PAA) or hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) only	●		
<b>Electrodes</b>			
Gold (disinfection only)	●	●	●
Platinum (disinfection only)	●	●	●
pH, ceramic diaphragm	●	●	●
Redox (ORP)	●		●
Redox (ORP), no reference system			
Fluoride (F <sup>-</sup> )	●		
Peracetic acid (PAA)	●		
Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> )	●		
<b>Input, miscellaneous</b>			
Flow sensor	●	●	●
Flow compensation			●
Controller stop (potentialfree contact)	●	●	●
<b>Temperature sensor</b>			
Pt100	●	●	●
<b>Voltage</b>			
1 x 230 V, 50/60 Hz	●	●	●
1 x 120 V, 50/60 Hz	●	●	●
24 VDC	●	●	●

## Conex® DIA controllers and preassembled systems

### General data



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Fig. 6 Conex® DIA-1



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Fig. 7 Conex® DIA-2



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Fig. 8 Conex® DIA-2Q

Electronics	16-bit microprocessor system						
Display	High resolution, plain-text LCD						
Indication mode	Measured value as a physical variable						
Enclosure class							
Wall-mounting:	IP65						
Control panel installation:	IP54						
Separate sensor interface:	IP65						
Max. cable length							
Wall-mounting:	3 metres						
Control panel installation:	100 metres between panel and sensor interface 3 metres between sensor and sensor interface						
Relay outputs	1 alarm relay 2 controller relays (250 V/6 A, max. 550 VA)						
Galvanically isolated from the inputs; max. load: 500 Ohm			<b>Conex® DIA-1</b>	<b>Conex® DIA-2</b>		<b>Conex® DIA-2Q</b>	
Parameter group				<b>1</b>	<b>2</b>	<b>1</b> <b>2</b>	
4 analog signal outputs (0-20 mA or 4-20 mA)	Signal transmission direct from input signal	Measured value/control value	1	1	1	1	
		pH	1				
		Temperature	1	1*		1*	
	Output from PI(D) controller		1	1	1*	1	1*
Temperature compensation	Manually or automatically by Pt100 sensor (-5 to 120 °C, measured in °C or °F)						
pH compensation	Chlorine (Cl <sub>2</sub> ) measurement: automatically by pH measurement						
Calibration	With plausibility check and buffer recognition						
Permissible temperature	Operation: 0 to 50 °C Storage: -20 to +65 °C						
Permissible relative air humidity	Max. 90 % (non-condensing)						
Power consumption	Approx. 15 VA						
Mains voltage	230/240 V, 50/60 Hz or 115/120 V, 50/60 Hz or 24 VDC						
Weight	Approx. 1.5 kg						

\* Signal output applicable for temperature or continuous controller (parameter group 2)

**Note:** DIA-1 is capable of measuring chlorine and pH simultaneously, but only capable of controlling the chlorine level.

## Measuring parameters and ranges for controllers

Parameter group	Parameter	Possible measuring range <sup>1)</sup>	Available with controller		
			Conex® DIA-1	Conex® DIA-2	Conex® DIA-2Q
1	Chlorine (Cl <sub>2</sub> ) [mg/l]	0.00 - 0.50			
		0.00 - 1.00			
		0.00 - 2.00			
		0.00 - 5.00	•	•	•
		0.0 - 10.0			
		0.0 - 20.0			
	Chlorine dioxide (ClO <sub>2</sub> ) [mg/l]	0.0 - 50.0			
		0.00 - 0.50			
		0.00 - 1.00			
		0.00 - 2.00	•	•	•
Ozone (O <sub>3</sub> ) [mg/l]	0.00 - 5.00				
	0.0 - 10.0				
	0.0 - 50.0				
Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) [mg/l]	0.00 - 2.00	•	•	•	
	0.00 - 5.00				
	0 - 100				
	0 - 500	•	•	•	
Peracetic acid (PAA) [mg/l]	0 - 1000				
	0 - 2000				
	0 - 100	•		•	
	0 - 500				
pH	0 - 1000				
	0.00 - 14.00	•			
	2.00 - 12.00				
Redox (ORP) [mV]	5.00 - 9.00				
	-1500 to +1500	•			
Fluoride (F <sup>-</sup> ) [mg/l]	0 - 1000				
	0.00 - 2.00	•			
2	pH	0.00 - 5.00			
		0.00 - 14.00		•	•
		2.00 - 12.00			
	Redox (ORP) [mV]	5.00 - 9.00			
		-1500 to +1500			•
	Fluoride (F <sup>-</sup> ) [mg/l]	0 - 1000			
0.00 - 2.00				•	

1) As regards preassembled systems, the lower limit of the measuring range can be different, depending on the type of measuring cell.

## Control data

Description	Value
Limit values	Adjustable as physical variable within the measuring range
Hysteresis	0 to 50 % of the upper limit of the measuring range
Setpoint selection	0 to 100 % of the measuring range
Proportional band, X <sub>p</sub>	0.1 to 3000 %
Reset time, T <sub>N</sub>	1 to 3000 s, resolution 1 s
Derivative action time, T <sub>V</sub>	1 to 1000 s, resolution 1 s
Constant load	0 to 50 %
Limitation of the maximum dosing capacity	From the adjusted constant load up to 100 %
Control direction	Adjustable: Upward or downward control

## Adjustable control functions for controllers and preassembled systems

Adjustable control functions	Measuring amplifier and controller				
	Conex® DIA-1	Conex® DIA-2		Conex® DIA-2Q	
		Parameter group		Parameter group	
		1	2	1	2
Number of measured values and control parameters	1	1	1	1	1
Potential-free control relays adjustable as	2	1	1	1	1
limit switch	•	•	•	•	•
2-position controller (P / PI / PID)	•	•	•	•	•
• pulse pause	•	•	•	•	•
• pulse frequency	•	•	•	•	•
3-position controller	•				
setpoint controller	•	•	•	•	•
proportional controller				•	•
combined controller (for compound-loop control)				•	•
	and		or		or
Analog continuous controller (0-20 mA or 4-20 mA)	1	1	1	1	1

## Dimensions for controllers

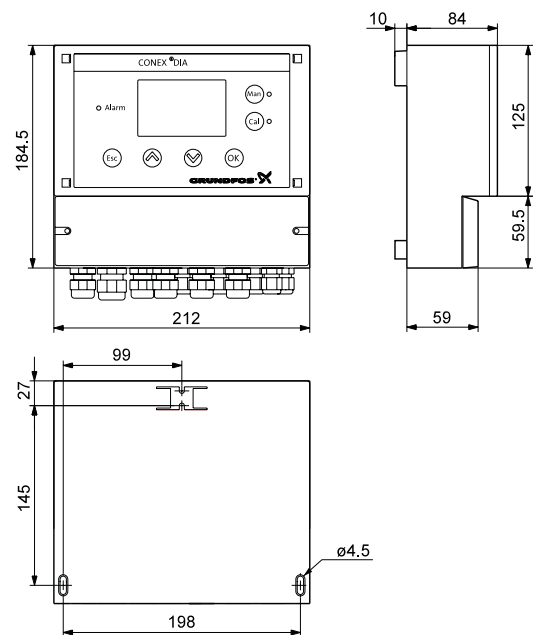


Fig. 9 Dimensions, Conex® DIA for wall-mounting

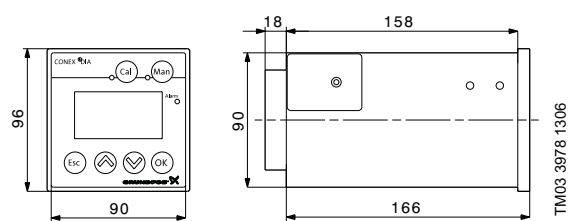


Fig. 10 Dimensions, Conex® DIA for installation in control panel

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## Dimensions



Fig. 11 Conex® DIA-1 preassembled system

Conex® preassembled systems for chlorine ( $\text{Cl}_2$ ), chlorine dioxide ( $\text{ClO}_2$ ), ozone ( $\text{O}_3$ ), pH or redox (ORP)

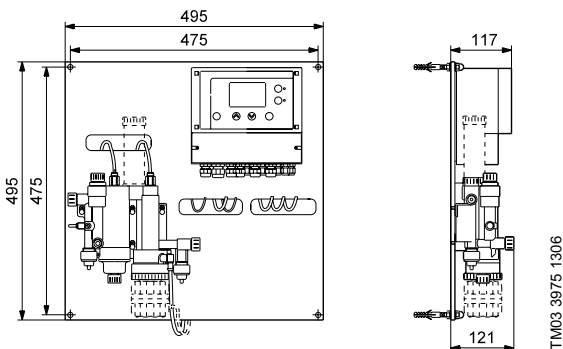


Fig. 12 Dimensions, Conex® DIA-1-A, D1 (D2 / D3), Conex® DIA-2-A, D1 (D2 / D3), Conex® DIA-2Q-A, D1 (D2 / D3) preassembled systems for  $\text{Cl}_2$ ,  $\text{ClO}_2$ ,  $\text{O}_3$ , pH or redox (ORP)

Conex® preassembled system for hydrogen peroxide ( $\text{H}_2\text{O}_2$ ) and peracetic acid (PAA)

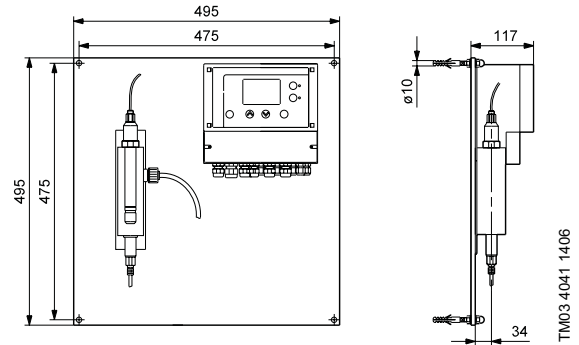


Fig. 13 Dimensions, Conex® DIA-1 -A, PA/HP, preassembled system for  $\text{H}_2\text{O}_2$  or PAA

Conex® preassembled system for pH or redox (ORP)

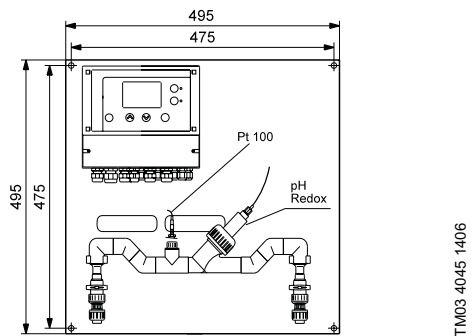


Fig. 14 Dimensions. Conex® DIA-1(2 / 2Q)-A, P/R, preassembled systems for pH or redox (ORP)

Conex® preassembled systems for fluoride ( $\text{F}^-$ )

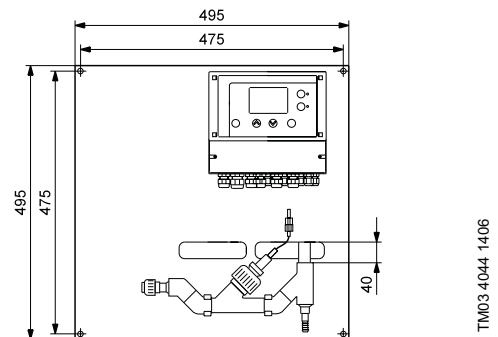


Fig. 15 Dimensions, Conex® DIA-1-A, F, preassembled systems for fluoride

## Conex® DIA controllers

Controller	Voltage	Controller mounting	Enclosure material	Enclosure class	Input parameter			Variant	Type designation	Product number
					1	2	3			
	24 VDC 115/120 V 230/240 V	Panel-mounted Wall-mounted	Polystyrene Noryl (enclosure) ABS (sensor interface)	IP 65 IP 54 (enclosure), IP 65 (sensor interface)	Chlorine (Cl <sub>2</sub> ), chlorine dioxide (ClO <sub>2</sub> ) or ozone (O <sub>3</sub> ) pH Redox (ORP) Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) Peracetic acid (PAA) Fluoride (F <sup>-</sup> )	pH Redox (ORP) Fluoride (F <sup>-</sup> ) Redox (ORP)		Flow compensation		
Conex® DIA-1	•	•	•	•	• • • • • • • •				DIA-1, 1-P/R/D/HP/PA/F, P-I	96622365 (350-2205-10003)
	•	•	•	•	• • • • • • • •				DIA-1, 1-P/R/D/HP/PA/F, W-I	96622361 (350-2200-10004)
	•	•	•	•	• • • • • • • •				DIA-1, 1-P/R/D/HP/PA/F, P-H	96622364 (350-2205-10001)
	•	•	•	•	• • • • • • • •				DIA-1, 1-P/R/D/HP/PA/F, W-H	96622360 (350-2200-10002)
	•	•	•	•	• • • • • • • •				DIA-1, 1-P/R/D/HP/PA/F, P-G	96622363 (350-2205-10000)
	•	•	•	•	• • • • • • • •				DIA-1, 1-P/R/D/HP/PA/F, W-G	96622359 (350-2200-10000)
Conex® DIA-2	•	•	•	•	• • • • • • • •	•			DIA-2, 1-D/HP, 2-P, P-I	96622374 (354-2205-10003)
	•	•	•	•	• • • • • • • •	•			DIA-2, 1-D/HP, 2-P, W-I	96622370 (354-2200-10008)
	•	•	•	•	• • • • • • • •	•			DIA-2, 1-D/HP, 2-P, P-H	96622373 (354-2205-10002)
	•	•	•	•	• • • • • • • •	•			DIA-2, 1-D/HP, 2-P, W-H	96622369 (354-2200-10002)
	•	•	•	•	• • • • • • • •	•			DIA-2, 1-D/HP, 2-P, P-G	96622371 (354-2205-10000)
	•	•	•	•	• • • • • • • •	•			DIA-2, 1-D/HP, 2-P, W-G	96622366 (354-2200-10001)
Conex® DIA-2Q	•	•	•	•	• • • • • • • •	• • • •	•		DIA-2Q, 1-D/HP/PA, 2-P/R/F, Q-P-I	96622391 (352-2205-10003)
	•	•	•	•	• • • • • • • •	• • • •	•		DIA-2Q, 1-D/HP/PA, 2-P/R/F, Q-W-I	96622388 (352-2200-10008)
	•	•	•	•	• • • • • • • •	• • • •	•		DIA-2Q, 1-D/HP/PA, 2-P/R/F, Q-P-H	96622390 (352-2205-10002)
	•	•	•	•	• • • • • • • •	• • • •	•		DIA-2Q, 1-D/HP/PA, 2-P/R/F, Q-W-H	96609141 (352-2200-10002)
	•	•	•	•	• • • • • • • •	• • • •	•		DIA-2Q, 1-D/HP/PA, 2-P/R/F, Q-P-G	96622389 (352-2205-10000)
	•	•	•	•	• • • • • • • •	• • • •	•		DIA-2Q, 1-D/HP/PA, 2-P/R/F, Q-W-G	96609140 (352-2200-10001)

Note: DIA-1 is capable of measuring chlorine and pH simultaneously, but only capable of controlling the chlorine level.

## Conex® DIA preassembled systems

Controller	Voltage	Cell type			Electrode			Sensor	Type designation	Product number
		1	2	3	1	2	3			
Conex® DIA-1-A	24 VDC	D1, pressure-proof with cleaning motor D2, pressure-proof with hydro-mechanical cleaning D3, pressureless with hydro-mechanical cleaning Fluoride only Peracetic acid/hydrogen peroxide pH or redox (ORP) only With pressure retention valve Without pressure retention valve	Gold (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Platinum (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Fluoride (F <sup>-</sup> ) Peracetic acid (PAA) Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) pH ceramic diaphragm Redox (ORP) ceramic diaphragm	Redox (ORP) without reference system	Flow sensor Temperature sensor	DIA-1-A, D1-P-AU-PCB-QS-T, W-I	•	•	96622416 (314-331-10051)	
	115/120 V						•	•	96622429 (314-331-10063)	
	230/240 V						•	•	96622423 (314-331-10057)	
	•						•	•	96622435 (314-331-10069)	
	•						•	•	96622419 (314-331-10054)	
	•						•	•	96622432 (314-331-10066)	
	•						•	•	96622426 (314-331-10060)	
	•						•	•	96622438 (314-331-10072)	
	•						•	•	96622678 (314-931-10026)	
	•						•	•	96622684 (314-931-10017)	
	•						•	•	96622681 (314-931-10029)	
	•						•	•	96622687 (314-931-10035)	
	•						•	•	96622573 (314-631-10019)	
	•						•	•	96622585 (314-631-10031)	
	•						•	•	96622579 (314-631-10025)	
	•						•	•	96622592 (314-631-10037)	
	•						•	•	96622576 (314-631-10022)	
	•						•	•	96622588 (314-631-10034)	
	•						•	•	96622582 (314-631-10028)	
	•						•	•	96622595 (314-631-10040)	
•	•	•	96622747 (314-500-10005)							
•	•	•	96622760 (314-711-10001)							
•	•	•	96622764 (314-811-10006)							

Controller	Voltage	Cell type		Electrode			Sensor	Type designation	Product number								
				1	2	3											
Conex® DIA-1-A	24 VDC	D1, pressure-proof with cleaning motor D2, pressure-proof with hydro-mechanical cleaning D3, pressureless with hydro-mechanical cleaning Fluoride only Peracetic acid/hydrogen peroxide pH or redox (ORP) only With pressure retention valve Without pressure retention valve															
	115/120 V																
	230/240 V																
	•									•	•	•	•	•	•	DIA-1-A, P/R-X-PCB-X-T, W-I	96622768 (314-170-10030)
	•									•	•	•	•	•	•	DIA-1-A, P/R-X-PCB-X-X, W-I	96622773 (314-170-10033)
	•									•	•	•	•	•	•	DIA-1-A, P/R-X-RCB-X-T, W-I	96622777 (314-170-10036)
	•									•	•	•	•	•	•	DIA-1-A, P/R-X-RCB-X-X, W-I	96622785 (314-170-10039)
	•									•	•	•	•	•	•	DIA-1-A, D1-P-AU-PCB-QS-T, W-H	96622414 (314-331-10013)
	•									•	•	•	•	•	•	DIA-1-A, D1-P-AU-PCB-X-T, W-H	96622428 (314-331-10062)
	•									•	•	•	•	•	•	DIA-1-A, D1-P-AU-X-QS-T, W-H	96622422 (314-331-10042)
	•									•	•	•	•	•	•	DIA-1-A, D1-P-AU-X-X-T, W-H	96622434 (314-331-10068)
	•									•	•	•	•	•	•	DIA-1-A, D1-P-PT-PCB-QS-T, W-H	96622418 (314-331-10015)
	•									•	•	•	•	•	•	DIA-1-A, D1-P-PT-PCB-X-T, W-H	96622431 (314-331-10065)
	•									•	•	•	•	•	•	DIA-1-A, D1-P-PT-X-QS-T, W-H	96622425 (314-331-10044)
	•									•	•	•	•	•	•	DIA-1-A, D1-P-PT-X-X-T, W-H	96622437 (314-331-10071)
	•									•	•	•	•	•	•	DIA-1-A, D2-X-AU-PCX-QS-T, W-G	95706781 (314-931-10043)
	•									•	•	•	•	•	•	DIA-1-A, D2-P-AU-X-QS-T, W-H	96622683 (314-931-10019)
	•									•	•	•	•	•	•	DIA-1-A, D2-P-PT-PCB-QS-T, W-H	96622680 (314-931-10028)
	•									•	•	•	•	•	•	DIA-1-A, D2-P-PT-X-QS-T, W-H	96622686 (314-931-10021)
	•									•	•	•	•	•	•	DIA-1-A, D3-X-AU-PCB-QS-T, W-H	96622572 (314-631-10018)
•	•	•	•	•	•	•	DIA-1-A, D3-X-AU-PCB-X-T, W-H	96622584 (314-631-10030)									
•	•	•	•	•	•	•	DIA-1-A, D3-X-AU-X-QS-T, W-H	96622578 (314-631-10014)									
•	•	•	•	•	•	•	DIA-1-A, D3-X-AU-X-X-T, W-H	96622591 (314-631-10008)									
•	•	•	•	•	•	•	DIA-1-A, D3-X-PT-PCB-QS-T, W-H	96622575 (314-631-10021)									
•	•	•	•	•	•	•	DIA-1-A, D3-X-PT-PCB-X-T, W-H	96622587 (314-631-10033)									
•	•	•	•	•	•	•	DIA-1-A, D3-X-PT-X-QS-T, W-H	96622581 (314-631-10027)									
•	•	•	•	•	•	•	DIA-1-A, D3-X-PT-X-X-T, W-H	96622594 (314-631-10009)									



Controller	Voltage	Cell type			Electrode			Sensor	Type designation	Product number									
		1	2	3	1	2	3												
Conex® DIA-1-A	24 VDC	D1, pressure-proof with cleaning motor D2, pressure-proof with hydro-mechanical cleaning D3, pressureless with hydro-mechanical cleaning Fluoride only Peracetic acid/hydrogen peroxide pH or redox (ORP) only With pressure retention valve Without pressure retention valve	Gold (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Platinum (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Fluoride (F <sup>-</sup> ) Peracetic acid (PAA) Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) pH ceramic diaphragm Redox (ORP) ceramic diaphragm Redox (ORP) without reference system																
	115/120 V																		
	230/240 V																		
	•										•	•	•	•	•	•	•	DIA-1-A, F-X-F-X-X, W-H	96622746 (314-500-10001)
	•										•	•	•	•	•	•	•	DIA-1-A, PA/HP-X-HP-X-X, W-H	96622762 (314-811-10002)
	•										•	•	•	•	•	•	•	DIA-1-A, PA/HP-X-PA-X-X, W-H	96622749 (314-711-10002)
	•										•	•	•	•	•	•	•	DIA-1-A, P/R-X-PCB-X-T, W-H	96622766 (314-170-10095)
	•										•	•	•	•	•	•	•	DIA-1-A, P/R-X-PCB-X-X, W-H	96622772 (314-170-10032)
	•										•	•	•	•	•	•	•	DIA-1-A, P/R-X-RCB-X-T, W-H	96622775 (314-170-10035)
	•										•	•	•	•	•	•	•	DIA-1-A, P/R-X-RCB-X-X, W-H	96622779 (314-170-10038)
	•										•	•	•	•	•	•	•	DIA-1-A, D1-P-AU-PCB-QS-T, W-G	96622413 (314-331-10012)
	•										•	•	•	•	•	•	•	DIA-1-A, D1-P-AU-PCB-X-T, W-G	96622427 (314-331-10061)
	•										•	•	•	•	•	•	•	DIA-1-A, D1-P-AU-X-QS-T, W-G	96622420 (314-331-10009)
	•										•	•	•	•	•	•	•	DIA-1-A, D1-P-AU-X-X-T, W-G	96622433 (314-331-10036)
	•										•	•	•	•	•	•	•	DIA-1-A, D1-P-PT-PCB-QS-T, W-G	96622417 (314-331-10014)
	•										•	•	•	•	•	•	•	DIA-1-A, D1-P-PT-PCB-X-T, W-G	96622430 (314-331-10064)
	•										•	•	•	•	•	•	•	DIA-1-A, D1-P-PT-X-QS-T, W-G	96622424 (314-331-10002)
	•										•	•	•	•	•	•	•	DIA-1-A, D1-P-PT-X-X-T, W-G	96622436 (314-331-10070)
	•										•	•	•	•	•	•	•	DIA-1-A, D2-P-AU-PCB-QS-T, W-G	96622676 (314-931-10018)
	•										•	•	•	•	•	•	•	DIA-1-A, D2-P-AU-X-QS-T, W-G	96622682 (314-931-10005)
•	•	•	•	•	•	•	•	DIA-1-A, D2-P-PT-PCB-QS-T, W-G	96622679 (314-931-10027)										
•	•	•	•	•	•	•	•	DIA-1-A, D2-P-PT-X-QS-T, W-G	96622685 (314-931-10006)										
•	•	•	•	•	•	•	•	DIA-1-A, D3-X-AU-PCB-QS-T, W-G	96622571 (314-631-10017)										
•	•	•	•	•	•	•	•	DIA-1-A, D3-X-AU-PCB-X-T, W-G	96622583 (314-631-10012)										
•	•	•	•	•	•	•	•	DIA-1-A, D3-X-AU-X-QS-T, W-G	96622577 (314-631-10003)										
•	•	•	•	•	•	•	•	DIA-1-A, D3-X-AU-X-X-T, W-G	96622590 (314-631-10007)										
•	•	•	•	•	•	•	•	DIA-1-A, D3-X-PT-PCB-QS-T, W-G	96622574 (314-631-10020)										

	Voltage	Cell type			Electrode			Sensor	Type designation	Product number								
					1	2	3											
Controller	24 VDC	D1, pressure-proof with cleaning motor D2, pressure-proof with hydro-mechanical cleaning D3, pressureless with hydro-mechanical cleaning Fluoride only Peracetic acid/hydrogen peroxide pH or redox (ORP) only With pressure retention valve Without pressure retention valve	Peracetic acid/hydrogen peroxide pH or redox (ORP) only With pressure retention valve Without pressure retention valve	Gold (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Platinum (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Fluoride (F <sup>-</sup> ) Peracetic acid (PAA) Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) pH ceramic diaphragm Redox (ORP) ceramic diaphragm Redox (ORP) without reference system				Flow sensor Temperature sensor										
	115/120 V																	
	230/240 V																	
	•										•	•	•	•	•	•	DIA-1-A, D3-X-PT-PCB-X-T, W-G	96622586 (314-631-10032)
	•										•	•	•	•	•	•	DIA-1-A, D3-X-PT-X-QS-T, W-G	96622580 (314-631-10004)
	•										•	•	•	•	•	•	DIA-1-A, D3-X-PT-X-X-T, W-G	96622593 (314-631-10002)
	•										•	•	•	•	•	•	DIA-1-A, F-X-F-X-X, W-G	96622728 (314-500-10000)
	•										•	•	•	•	•	•	DIA-1-A, P/R-X-PCB-X-T, W-G	96622765 (314-170-10001)
	•										•	•	•	•	•	•	DIA-1-A, P/R-X-PCB-X-X, W-G	96622769 (314-170-10000)
Conex® DIA-1-A	•	•	•	•	•	•	•	DIA-1-A, P/R-X-RCB-X-T, W-G	96622774 (314-170-10034)									
	•	•	•	•	•	•	•	DIA-1-A, P/R-X-RCB-X-X, W-G	96622778 (314-170-10059)									
	•	•	•	•	•	•	•	DIA-1-A, PA/HP-X-HP-X-X, W-G	96622761 (314-811-10000)									
	•	•	•	•	•	•	•	DIA-1-A, PA/HP-X-PA-X-X, W-G	96622748 (314-711-10000)									
	•	•	•	•	•	•	•	DIA-2-A, D1-P-AU-PCB-QS-T, W-I	96622441 (314-334-10037)									
	•	•	•	•	•	•	•	DIA-2-A, D1-P-AU-PCB-X-T, W-I	96622463 (314-334-10049)									
	•	•	•	•	•	•	•	DIA-2-A, D1-P-AU-X-QS-T, W-I	96622447 (314-334-10043)									
	•	•	•	•	•	•	•	DIA-2-A, D1-P-AU-X-X-T, W-I	96622471 (314-334-10055)									
	•	•	•	•	•	•	•	DIA-2-A, D1-P-PT-PCB-QS-T, W-I	96622444 (314-334-10040)									
	•	•	•	•	•	•	•	DIA-2-A, D1-P-PT-PCB-X-T, W-I	96622467 (314-334-10052)									
	•	•	•	•	•	•	•	DIA-2-A, D1-P-PT-X-QS-T, W-I	96622460 (314-334-10046)									
•	•	•	•	•	•	•	DIA-2-A, D1-P-PT-X-X-T, W-I	96622475 (314-334-10058)										
•	•	•	•	•	•	•	DIA-2-A, D2-P-AU-PCB-QS-T, W-I	96622690 (314-934-10021)										
•	•	•	•	•	•	•	DIA-2-A, D2-P-AU-X-QS-T, W-I	96622696 (314-934-10027)										
•	•	•	•	•	•	•	DIA-2-A, D2-P-PT-PCB-QS-T, W-I	96622693 (314-934-10024)										
•	•	•	•	•	•	•	DIA-2-A, D2-P-PT-X-QS-T, W-I	96622699 (314-934-10030)										
•	•	•	•	•	•	•	DIA-2-A, D3-X-AU-PCB-QS-T, W-I	96622598 (314-634-10020)										
•	•	•	•	•	•	•	DIA-2-A, D3-X-AU-PCB-X-T, W-I	96622610 (314-634-10032)										

# Product selection

Conex® DIA-1, DIA-2, DIA-2Q

	Voltage	Cell type			Electrode			Sensor	Type designation	Product number	
					1	2	3				
Controller	24 VDC	D1, pressure-proof with cleaning motor D2, pressure-proof with hydro-mechanical cleaning D3, pressureless with hydro-mechanical cleaning Fluoride only Peracetic acid/hydrogen peroxide pH or redox (ORP) only With pressure retention valve Without pressure retention valve	Gold (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Platinum (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Fluoride (F <sup>-</sup> ) Peracetic acid (PAA) Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) pH ceramic diaphragm Redox (ORP) ceramic diaphragm Redox (ORP) without reference system					Flow sensor Temperature sensor			
	115/120 V 230/240 V										
Conex® DIA-2-A	•	•	•	•			•	•	DIA-2-A, D3-X-AU-X-QS-T, W-I	96622604 (314-634-10026)	
	•	•	•	•			•	•	DIA-2-A, D3-X-AU-X-X-T, W-I	96622616 (314-634-10038)	
	•	•	•	•		•		•	•	DIA-2-A, D3-X-PT-PCB-QS-T, W-I	96622601 (314-634-10023)
	•	•	•	•		•		•	•	DIA-2-A, D3-X-PT-PCB-X-T, W-I	96622613 (314-634-10035)
	•	•	•	•				•	•	DIA-2-A, D3-X-PT-X-QS-T, W-I	96622607 (314-634-10029)
	•	•	•	•				•	•	DIA-2-A, D3-X-PT-X-X-T, W-I	96622619 (314-634-10041)
	•		•	•		•		•	•	DIA-2-A, P/R-X-PCX-X-T, W-I	96622788 (314-170-10042)
	•		•	•		•		•	•	DIA-2-A, P/R-X-PCX-X-X, W-I	96622796 (314-170-10045)
	•	•	•	•		•		•	•	DIA-2-A, D1-P-AU-PCB-QS-T, W-H	96622440 (314-334-10036)
	•	•	•	•		•		•	•	DIA-2-A, D1-P-AU-PCB-X-T, W-H	96622462 (314-334-10048)
	•	•	•	•				•	•	DIA-2-A, D1-P-AU-X-QS-T, W-H	96622446 (314-334-10042)
	•	•	•	•				•	•	DIA-2-A, D1-P-AU-X-X-T, W-H	96622470 (314-334-10031)
	•	•	•	•		•		•	•	DIA-2-A, D1-P-PT-PCB-QS-T, W-H	96622443 (314-334-10039)
	•	•	•	•		•		•	•	DIA-2-A, D1-P-PT-PCB-X-T, W-H	96622465 (314-334-10051)
	•	•	•	•				•	•	DIA-2-A, D1-P-PT-X-QS-T, W-H	96622449 (314-334-10045)
	•	•	•	•				•	•	DIA-2-A, D1-P-PT-X-X-T, W-H	96622473 (314-334-10033)
	•	•	•	•		•		•	•	DIA-2-A, D2-P-AU-PCB-QS-T, W-H	96622689 (314-934-10020)
	•	•	•	•				•	•	DIA-2-A, D2-P-AU-X-QS-T, W-H	96622695 (314-934-10017)
	•	•	•	•		•		•	•	DIA-2-A, D2-P-PT-PCB-QS-T, W-H	96622692 (314-934-10023)
	•	•	•	•				•	•	DIA-2-A, D2-P-PT-X-QS-T, W-H	96622698 (314-934-10018)
•	•	•	•		•		•	•	DIA-2-A, D3-X-AU-PCB-QS-T, W-H	96622597 (314-634-10019)	
•	•	•	•		•		•	•	DIA-2-A, D3-X-AU-PCB-X-T, W-H	96622609 (314-634-10031)	
•	•	•	•				•	•	DIA-2-A, D3-X-AU-X-QS-T, W-H	96622603 (314-634-10025)	
•	•	•	•				•	•	DIA-2-A, D3-X-AU-X-X-T, W-H	96622615 (314-634-10017)	

Controller	Voltage	Cell type			Electrode			Sensor	Type designation	Product number		
		1	2	3	1	2	3					
Conex® DIA-2-A	24 VDC	D1, pressure-proof with cleaning motor D2, pressure-proof with hydro-mechanical cleaning D3, pressureless with hydro-mechanical cleaning Fluoride only Peracetic acid/hydrogen peroxide pH or redox (ORP) only With pressure retention valve Without pressure retention valve	Gold (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Platinum (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Fluoride (F <sup>-</sup> ) Peracetic acid (PAA) Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) pH ceramic diaphragm Redox (ORP) ceramic diaphragm Redox (ORP) without reference system	Flow sensor Temperature sensor	DIA-2-A, D3-X-PT-PCB-QS-T, W-H	•	•	•	96622600 (314-634-10022)			
	115/120 V					•	•	•	DIA-2-A, D3-X-PT-PCB-X-T, W-H	•	•	96622612 (314-634-10034)
	230/240 V					•	•	•	DIA-2-A, D3-X-PT-X-QS-T, W-H	•	•	96622606 (314-634-10028)
	•					•	•	DIA-2-A, D3-X-PT-X-X-T, W-H	•	•	96622618 (314-634-10016)	
	•					•	•	DIA-2-A, P/R-X-PCX-X-T, W-H	•	•	96622787 (314-170-10041)	
	•					•	•	DIA-2-A, P/R-X-PCX-X-X, W-H	•	•	96622795 (314-170-10044)	
	•					•	•	DIA-2-A, D1-P-AU-PCB-QS-T, W-G	•	•	96622439 (314-334-10008)	
	•					•	•	DIA-2-A, D1-P-AU-PCB-X-T, W-G	•	•	96622461 (314-334-10047)	
	•					•	•	DIA-2-A, D1-P-AU-X-QS-T, W-G	•	•	96622445 (314-334-10041)	
	•					•	•	DIA-2-A, D1-P-AU-X-X-T, W-G	•	•	96622468 (314-334-10024)	
	•					•	•	DIA-2-A, D1-P-PT-PCB-QS-T, W-G	•	•	96622442 (314-334-10025)	
	•					•	•	DIA-2-A, D1-P-PT-PCB-X-T, W-G	•	•	96622464 (314-334-10050)	
	•					•	•	DIA-2-A, D1-P-PT-X-QS-T, W-G	•	•	96622448 (314-334-10044)	
	•					•	•	DIA-2-A, D1-P-PT-X-X-T, W-G	•	•	96622472 (314-334-10030)	
	•					•	•	DIA-2-A, D2-P-AU-PCB-QS-T, W-G	•	•	96622688 (314-934-10019)	
	•					•	•	DIA-2-A, D2-P-AU-X-QS-T, W-G	•	•	96622694 (314-934-10004)	
	•					•	•	DIA-2-A, D2-P-PT-PCB-QS-T, W-G	•	•	96622691 (314-934-10022)	
	•					•	•	DIA-2-A, D2-P-PT-X-QS-T, W-G	•	•	96622697 (314-934-10016)	
	•					•	•	DIA-2-A, D3-X-AU-PCB-QS-T, W-G	•	•	96622596 (314-634-10042)	
	•					•	•	DIA-2-A, D3-X-AU-PCB-X-T, W-G	•	•	96622608 (314-634-10001)	
•	•	•	DIA-2-A, D3-X-AU-X-QS-T, W-G	•	•	96622602 (314-634-10003)						
•	•	•	DIA-2-A, D3-X-AU-X-X-T, W-G	•	•	96622614 (314-634-10005)						
•	•	•	DIA-2-A, D3-X-PT-PCB-QS-T, W-G	•	•	96622599 (314-634-10021)						
•	•	•	DIA-2-A, D3-X-PT-PCB-X-T, W-G	•	•	96622611 (314-634-10033)						

Controller	Voltage	Cell type			Electrode			Sensor	Type designation	Product number		
					1	2	3					
Conex® DIA-2-A	24 VDC	D1, pressure-proof with cleaning motor D2, pressure-proof with hydro-mechanical cleaning D3, pressureless with hydro-mechanical cleaning Fluoride only Peracetic acid/hydrogen peroxide pH or redox (ORP) only With pressure retention valve Without pressure retention valve			Gold (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Platinum (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Fluoride (F <sup>-</sup> ) Peracetic acid (PAA) Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) pH ceramic diaphragm Redox (ORP) ceramic diaphragm Redox (ORP) without reference system			Flow sensor Temperature sensor		● ●	DIA-2-A, D3-X-PT-X-QS-T, W-G	96622605 (314-634-10027)
	115/120 V									● ●	DIA-2-A, D3-X-PT-X-X-T, W-G	96622617 (314-634-10006)
	230/240 V									● ●	DIA-2-A, P/R-X-PCX-X-T, W-G	96622786 (314-170-10040)
										● ●	DIA-2-A, P/R-X-PCX-X-X, W-G	96622794 (314-170-10043)
Conex® DIA-2Q-A	●	●	●	●	●	●	● ●	DIA-2Q-A, D1-P-AU-PCB-QS-T, W-I	96622477 (314-335-10062)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D1-P-AU-PCB-X-T, W-I	96622493 (314-335-10076)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D1-P-AU-RCB-QS-T, W-I	96622482 (314-335-10066)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D1-P-AU-RCB-X-T, W-I	96622501 (314-335-10082)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D1-P-AU-X-QS-T, W-I	96622486 (314-335-10070)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D1-P-AU-X-X-T, W-I	96622507 (314-335-10088)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D1-P-PT-PCB-QS-T, W-I	96622481 (314-335-10065)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D1-P-PT-PCB-X-T, W-I	96622497 (314-335-10079)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D1-P-PT-RCB-QS-T, W-I	96622485 (314-335-10069)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D1-P-PT-RCB-X-T, W-I	96622504 (314-335-10085)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D1-P-PT-X-QS-T, W-I	96622490 (314-335-10073)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D1-P-PT-X-X-T, W-I	96622511 (314-335-10091)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D2-P-AU-PCB-QS-T, W-I	96622702 (314-935-10022)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D2-P-AU-RCB-QS-T, W-I	96622708 (314-935-10028)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D2-P-AU-X-QS-T, W-I	96622714 (314-935-10034)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D2-P-PT-PCB-QS-T, W-I	96622705 (314-935-10025)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D2-P-PT-RCB-QS-T, W-I	96622711 (314-935-10031)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D2-P-PT-X-QS-T, W-I	96622717 (314-935-10037)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D3-X-AU-PCB-QS-T, W-I	96622622 (314-635-10020)			
	●	●	●	●	●	●	● ●	DIA-2Q-A, D3-X-AU-PCB-X-T, W-I	96622640 (314-635-10038)			

Controller	Voltage	Cell type			Electrode			Sensor	Type designation	Product number									
		1	2	3	1	2	3												
Conex® DIA-2Q-A	24 VDC	D1, pressure-proof with cleaning motor D2, pressure-proof with hydro-mechanical cleaning D3, pressureless with hydro-mechanical cleaning Fluoride only Peracetic acid/hydrogen peroxide pH or redox (ORP) only With pressure retention valve Without pressure retention valve	Gold (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Platinum (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Fluoride (F <sup>-</sup> ) Peracetic acid (PAA) Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) pH ceramic diaphragm Redox (ORP) ceramic diaphragm Redox (ORP) without reference system					Flow sensor Temperature sensor											
	115/120 V																		
	230/240 V																		
	•										•	•	•	•	•	•	•	DIA-2Q-A, D3-X-AU-RCB-QS-T, W-I	96622628 (314-635-10026)
	•										•	•	•	•	•	•	•	DIA-2Q-A, D3-X-AU-RCB-X-T, W-I	96622646 (314-635-10044)
	•										•	•	•	•	•	•	•	DIA-2Q-A, D3-X-AU-X-QS-T, W-I	96622634 (314-635-10032)
	•										•	•	•	•	•	•	•	DIA-2Q-A, D3-X-AU-X-X-T, W-I	96622652 (314-635-10050)
	•										•	•	•	•	•	•	•	DIA-2Q-A, D3-X-PT-PCB-QS-T, W-I	96622625 (314-635-10023)
	•										•	•	•	•	•	•	•	DIA-2Q-A, D3-X-PT-PCB-X-T, W-I	96622643 (314-635-10041)
	•										•	•	•	•	•	•	•	DIA-2Q-A, D3-X-PT-RCB-QS-T, W-I	96622631 (314-635-10029)
	•										•	•	•	•	•	•	•	DIA-2Q-A, D3-X-PT-RCB-X-T, W-I	96622649 (314-635-10047)
	•										•	•	•	•	•	•	•	DIA-2Q-A, D3-X-PT-X-QS-T, W-I	96622637 (314-635-10035)
	•										•	•	•	•	•	•	•	DIA-2Q-A, D3-X-PT-X-X-T, W-I	96622655 (314-635-10053)
	•										•	•	•	•	•	•	•	DIA-2Q-A, P/R-X-PCB-X-T, W-I	96622799 (314-170-10048)
	•										•	•	•	•	•	•	•	DIA-2Q-A, P/R-X-PCB-X-X, W-I	96622803 (314-170-10051)
	•										•	•	•	•	•	•	•	DIA-2Q-A, P/R-X-RCB-X-T, W-I	96622806 (314-170-10054)
	•										•	•	•	•	•	•	•	DIA-2Q-A, P/R-X-RCB-X-X, W-I	96622809 (314-170-10057)
	•										•	•	•	•	•	•	•	DIA-2Q-A, D1-P-AU-PCB-QS-T, W-H	96609148 (314-335-10048)
	•										•	•	•	•	•	•	•	DIA-2Q-A, D1-P-AU-PCB-X-T, W-H	96622492 (314-335-10014)
	•										•	•	•	•	•	•	•	DIA-2Q-A, D1-P-AU-RCB-QS-T, W-H	96609149 (314-335-10022)
•	•	•	•	•	•	•	•	DIA-2Q-A, D1-P-AU-RCB-X-T, W-H	96622500 (314-335-10081)										
•	•	•	•	•	•	•	•	DIA-2Q-A, D1-P-AU-X-QS-T, W-H	96609146 (314-335-10056)										
•	•	•	•	•	•	•	•	DIA-2Q-A, D1-P-AU-X-X-T, W-H	96622506 (314-335-10055)										
•	•	•	•	•	•	•	•	DIA-2Q-A, D1-P-PT-PCB-QS-T, W-H	96622480 (314-335-10064)										
•	•	•	•	•	•	•	•	DIA-2Q-A, D1-P-PT-PCB-X-T, W-H	96622496 (314-335-10016)										
•	•	•	•	•	•	•	•	DIA-2Q-A, D1-P-PT-RCB-QS-T, W-H	96622484 (314-335-10005)										
•	•	•	•	•	•	•	•	DIA-2Q-A, D1-P-PT-RCB-X-T, W-H	96622503 (314-335-10084)										

# Product selection

Conex® DIA-1, DIA-2, DIA-2Q

Controller	Voltage	Cell type			Electrode			Sensor	Type designation	Product number
		1	2	3	1	2	3			
Conex® DIA-2Q-A	24 VDC	D1, pressure-proof with cleaning motor	Peracetic acid/hydrogen peroxide	Without pressure retention valve	Gold (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection)	Fluoride (F <sup>-</sup> )	Redox (ORP) without reference system	Flow sensor	DIA-2Q-A, D1-P-PT-X-QS-T, W-H	96622488 (314-335-10057)
	115/120 V	D2, pressure-proof with hydro-mechanical cleaning	pH or redox (ORP) only	With pressure retention valve	Platinum (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection)	Peracetic acid (PAA)	Redox (ORP) without reference system	Temperature sensor	DIA-2Q-A, D1-P-PT-X-X-T, W-H	96622510 (314-335-10052)
	230/240 V	D3, pressureless with hydro-mechanical cleaning	Fluoride only	Without pressure retention valve	Gold (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection)	Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> )	Redox (ORP) without reference system		DIA-2Q-A, D2-P-AU-PCB-QS-T, W-H	96622701 (314-935-10021)
						pH ceramic diaphragm			DIA-2Q-A, D2-P-AU-RCB-QS-T, W-H	96622707 (314-935-10027)
									DIA-2Q-A, D2-P-AU-X-QS-T, W-H	96622713 (314-935-10015)
									DIA-2Q-A, D2-P-PT-PCB-QS-T, W-H	96622704 (314-935-10024)
									DIA-2Q-A, D2-P-PT-RCB-QS-T, W-H	96622710 (314-935-10030)
									DIA-2Q-A, D2-P-PT-X-QS-T, W-H	96622716 (314-935-10016)
									DIA-2Q-A, D3-X-AU-PCB-QS-T, W-H	96622621 (314-635-10019)
									DIA-2Q-A, D3-X-AU-PCB-X-T, W-H	96622639 (314-635-10037)
									DIA-2Q-A, D3-X-AU-RCB-QS-T, W-H	96622627 (314-635-10025)
									DIA-2Q-A, D3-X-AU-RCB-X-T, W-H	96622645 (314-635-10043)
									DIA-2Q-A, D3-X-AU-X-QS-T, W-H	96622633 (314-635-10014)
									DIA-2Q-A, D3-X-AU-X-X-T, W-H	96622651 (314-635-10049)
									DIA-2Q-A, D3-X-PT-PCB-QS-T, W-H	96622624 (314-635-10022)
									DIA-2Q-A, D3-X-PT-PCB-X-T, W-H	96622642 (314-635-10040)
									DIA-2Q-A, D3-X-PT-RCB-QS-T, W-H	96622630 (314-635-10028)
									DIA-2Q-A, D3-X-PT-RCB-X-T, W-H	96622648 (314-635-10046)
									DIA-2Q-A, D3-X-PT-X-QS-T, W-H	96622636 (314-635-10015)
									DIA-2Q-A, D3-X-PT-X-X-T, W-H	96622654 (314-635-10052)
								DIA-2Q-A, P/R-X-PCB-X-T, W-H	96622798 (314-170-10047)	
								DIA-2Q-A, P/R-X-PCB-X-X, W-H	96622801 (314-170-10050)	
								DIA-2Q-A, P/R-X-RCB-X-T, W-H	96622805 (314-170-10053)	
								DIA-2Q-A, P/R-X-RCB-X-X, W-H	96622808 (314-170-10056)	

Controller	Voltage	Cell type			Electrode			Sensor	Type designation	Product number								
		1	2	3	1	2	3											
Conex® DIA-2Q-A	24 VDC	D1, pressure-proof with cleaning motor D2, pressure-proof with hydro-mechanical cleaning D3, pressureless with hydro-mechanical cleaning Fluoride only Peracetic acid/hydrogen peroxide pH or redox (ORP) only With pressure retention valve Without pressure retention valve	Gold (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Platinum (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Fluoride (F <sup>-</sup> ) Peracetic acid (PAA) Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) pH ceramic diaphragm Redox (ORP) ceramic diaphragm Redox (ORP) without reference system					Flow sensor Temperature sensor	DIA-2Q-A, D1-P-AU-PCB-QS-T, W-G	96609143 (314-335-10003)								
	115/120 V									●	●	●	●	●	●	●	DIA-2Q-A, D1-P-AU-PCB-X-T, W-G	96622491 (314-335-10013)
	230/240 V									●	●	●	●	●	●	●	DIA-2Q-A, D1-P-AU-RCB-QS-T, W-G	96609144 (314-335-10021)
										●	●	●	●	●	●	●	DIA-2Q-A, D1-P-AU-RCB-X-T, W-G	96622499 (314-335-10080)
										●	●	●	●	●	●	●	DIA-2Q-A, D1-P-AU-X-QS-T, W-G	96609142 (314-335-10002)
										●	●	●	●	●	●	●	DIA-2Q-A, D1-P-AU-X-X-T, W-G	96622505 (314-335-10053)
										●	●	●	●	●	●	●	DIA-2Q-A, D1-P-PT-PCB-QS-T, W-G	96622479 (314-335-10063)
										●	●	●	●	●	●	●	DIA-2Q-A, D1-P-PT-PCB-X-T, W-G	96622495 (314-335-10015)
										●	●	●	●	●	●	●	DIA-2Q-A, D1-P-PT-RCB-QS-T, W-G	96622483 (314-335-10023)
										●	●	●	●	●	●	●	DIA-2Q-A, D1-P-PT-RCB-X-T, W-G	96622502 (314-335-10083)
										●	●	●	●	●	●	●	DIA-2Q-A, D1-P-PT-X-QS-T, W-G	96622487 (314-335-10004)
										●	●	●	●	●	●	●	DIA-2Q-A, D1-P-PT-X-X-T, W-G	96622508 (314-335-10054)
										●	●	●	●	●	●	●	DIA-2Q-A, D2-P-AU-PCB-QS-T, W-G	96622700 (314-935-10020)
										●	●	●	●	●	●	●	DIA-2Q-A, D2-P-AU-RCB-QS-T, W-G	96622706 (314-935-10026)
										●	●	●	●	●	●	●	DIA-2Q-A, D2-P-AU-X-QS-T, W-G	96622712 (314-935-10001)
										●	●	●	●	●	●	●	DIA-2Q-A, D2-P-PT-PCB-QS-T, W-G	96622703 (314-935-10023)
										●	●	●	●	●	●	●	DIA-2Q-A, D2-P-PT-RCB-QS-T, W-G	96622709 (314-935-10029)
										●	●	●	●	●	●	●	DIA-2Q-A, D2-P-PT-X-QS-T, W-G	96622715 (314-935-10002)
										●	●	●	●	●	●	●	DIA-2Q-A, D3-X-AU-PCB-QS-T, W-G	96622620 (314-635-10018)
										●	●	●	●	●	●	●	DIA-2Q-A, D3-X-AU-PCB-X-T, W-G	96622638 (314-635-10036)
	●	●	●	●	●	●	●	DIA-2Q-A, D3-X-AU-RCB-QS-T, W-G	96622626 (314-635-10024)									
	●	●	●	●	●	●	●	DIA-2Q-A, D3-X-AU-RCB-X-T, W-G	96622644 (314-635-10042)									
	●	●	●	●	●	●	●	DIA-2Q-A, D3-X-AU-X-QS-T, W-G	96622632 (314-635-10002)									
	●	●	●	●	●	●	●	DIA-2Q-A, D3-X-AU-X-X-T, W-G	96622650 (314-635-10006)									



# Product selection

Conex® DIA-1, DIA-2, DIA-2Q

Controller	Voltage	Cell type			Electrode			Sensor	Type designation	Product number								
					1	2	3											
Conex® DIA-2Q-A	24 VDC	D1, pressure-proof with cleaning motor D2, pressure-proof with hydro-mechanical cleaning D3, pressureless with hydro-mechanical cleaning Fluoride only Peracetic acid/hydrogen peroxide pH or redox (ORP) only With pressure retention valve Without pressure retention valve			Gold (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Platinum (Cl <sub>2</sub> , ClO <sub>2</sub> , O <sub>3</sub> ) (disinfection) Fluoride (F <sup>-</sup> ) Peracetic acid (PAA) Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) pH ceramic diaphragm Redox (ORP) ceramic diaphragm Redox (ORP) without reference system			Flow sensor Temperature sensor										
	115/120 V																	
	230/240 V																	
	•										•	•	•	•	•	•	DIA-2Q-A, D3-X-PT-PCB-QS-T, W-G	96622623 (314-635-10021)
	•										•	•	•	•	•	•	DIA-2Q-A, D3-X-PT-PCB-X-T, W-G	96622641 (314-635-10039)
	•										•	•	•	•	•	•	DIA-2Q-A, D3-X-PT-RCB-QS-T, W-G	96622629 (314-635-10027)
	•										•	•	•	•	•	•	DIA-2Q-A, D3-X-PT-RCB-X-T, W-G	96622647 (314-635-10045)
	•										•	•	•	•	•	•	DIA-2Q-A, D3-X-PT-X-QS-T, W-G	96622635 (314-635-10000)
	•										•	•	•	•	•	•	DIA-2Q-A, D3-X-PT-X-X-T, W-G	96622653 (314-635-10051)
•	•	•	•	•	•	•	DIA-2Q-A, P/R-X-PCB-X-T, W-G	96622797 (314-170-10046)										
•	•	•	•	•	•	•	DIA-2Q-A, P/R-X-PCB-X-X, W-G	96622800 (314-170-10049)										
•	•	•	•	•	•	•	DIA-2Q-A, P/R-X-RCB-X-T, W-G	96622804 (314-170-10052)										
•	•	•	•	•	•	•	DIA-2Q-A, P/R-X-RCB-X-X, W-G	96622807 (314-170-10055)										

**Note:** DIA-1 is capable of measuring chlorine and pH simultaneously, but only capable of controlling the chlorine level.

## Cables

Description	DIA			Product number
	DIA-1	DIA-2	DIA-2Q	
Cable, 1 metre, for reference, pH and redox (ORP) electrode	●	●	●	96609182 (321-252)
Cable, 3 metres, for reference, pH and redox (ORP) electrode	●	●	●	96609183 (321-250)
Cable, 2 metres, for PAA/H <sub>2</sub> O <sub>2</sub> electrode	●	●	●	91835331 (45.10124)
Cable, 10 metres, for pH and redox (ORP) electrode *	●	●	●	96701441 (321-250/10)
Cable, 25 metres, for pH and redox (ORP) electrode *	●	●	●	95703576 (321-250/25)

\* If the length of the cable between controller and electrode exceeds 3 metres, an impedance converter is required.

## Buffer solutions

### for pH and redox (ORP)

Description	pH	Redox (ORP)	Product number
Buffer solutions for calibrating the pH single-rod probes 1 set per 100 ml for pH 4.01, 7.00 or 9.18	●		96609165 (549-050)
Buffer solutions for checking the redox (ORP) single-rod probes or electrodes, 100 ml (+220 mV)		●	96609166 (549-051)



Fig. 16 Buffer solutions

TM04-1829 1108

## Impedance converter

### for pH and redox (ORP)

Description	pH	Redox (ORP)	Product number
Impedance converter for pH/redox (ORP) measurement.			
If the length of the cable between controller and electrode exceeds 3 metres, the impedance converter is required.	●	●	95704730 (336-312)

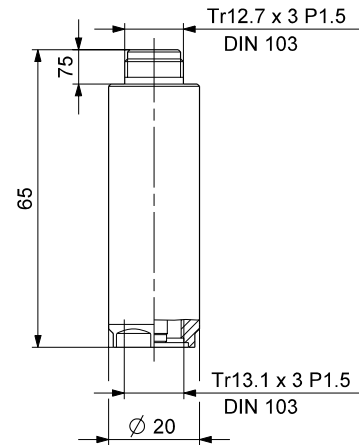
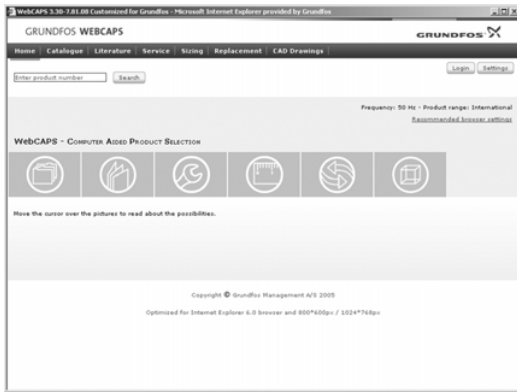


Fig. 17 Dimensions, impedance converter

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## WebCAPS

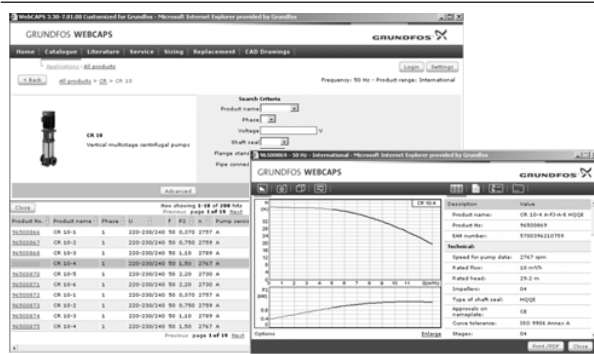


WebCAPS is a **Web**-based **Computer Aided Product Selection** program available on [www.grundfos.com](http://www.grundfos.com).

WebCAPS contains detailed information on more than 185,000 Grundfos products in more than 20 languages.

In WebCAPS, all information is divided into 6 sections:

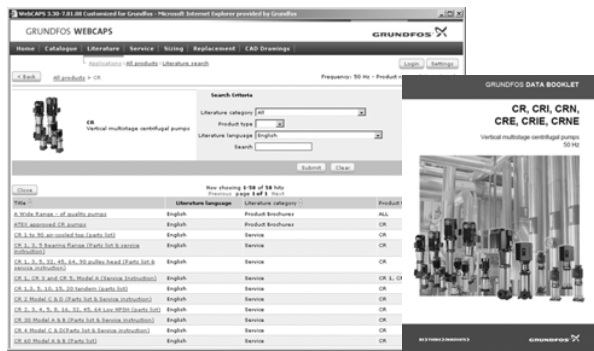
- Catalogue
- Literature
- Service
- Sizing
- Replacement
- CAD drawings.



### Catalogue

This section is based on fields of application and pump types, and contains

- technical data
- curves (QH, Eta, P1, P2, etc) which can be adapted to the density and viscosity of the pumped liquid and show the number of pumps in operation
- product photos
- dimensional drawings
- wiring diagrams
- quotation texts, etc.



### Literature

In this section you can access all the latest documents of a given pump, such as

- data booklets
- installation and operating instructions
- service documentation, such as Service kit catalogue and Service kit instructions
- quick guides
- product brochures, etc.



### Service

This section contains an easy-to-use interactive service catalogue. Here you can find and identify service parts of both existing and discontinued Grundfos pumps. Furthermore, this section contains service videos showing you how to replace service parts.



## Sizing

This section is based on different fields of application and installation examples, and gives easy step-by-step instructions in how to

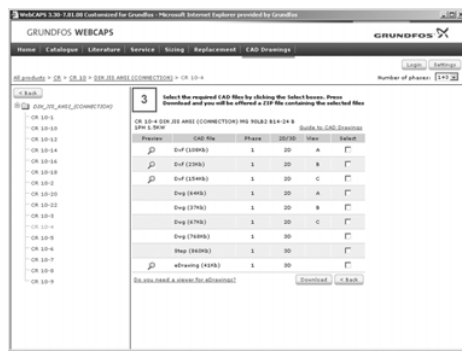
- select the most suitable and efficient pump for your installation
- carry out advanced calculations based on energy consumption, payback periods, load profiles, life cycle costs, etc.
- analyse your selected pump via the built-in life cycle cost tool
- determine the flow velocity in wastewater applications, etc.



## Replacement

In this section you find a guide to selecting and comparing replacement data of an installed pump in order to replace the pump with a more efficient Grundfos pump. The section contains replacement data of a wide range of pumps produced by other manufacturers than Grundfos.

Based on an easy step-by-step guide, you can compare Grundfos pumps with the one you have installed on your site. When you have specified the installed pump, the guide will suggest a number of Grundfos pumps which can improve both comfort and efficiency.



## CAD drawings

In this section it is possible to download 2-dimensional (2D) and 3-dimensional (3D) CAD drawings of most Grundfos pumps.

These formats are available in WebCAPS:

- 2-dimensional drawings:
- .dxf, wireframe drawings
  - .dwg, wireframe drawings.
- 3-dimensional drawings:
- .dwg, wireframe drawings (without surfaces)
  - .stp, solid drawings (with surfaces)
  - .eprt, E-drawings.

## WinCAPS



Fig. 18 WinCAPS CD-ROM

WinCAPS is a **Windows-based Computer Aided Product Selection** program containing detailed information on more than 185.000 Grundfos products in more than 20 languages.

The program contains the same features and functions as WebCAPS, but is an ideal solution if no Internet connection is available.

WinCAPS is available on CD-ROM and updated once a year.







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Subject to alterations.

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