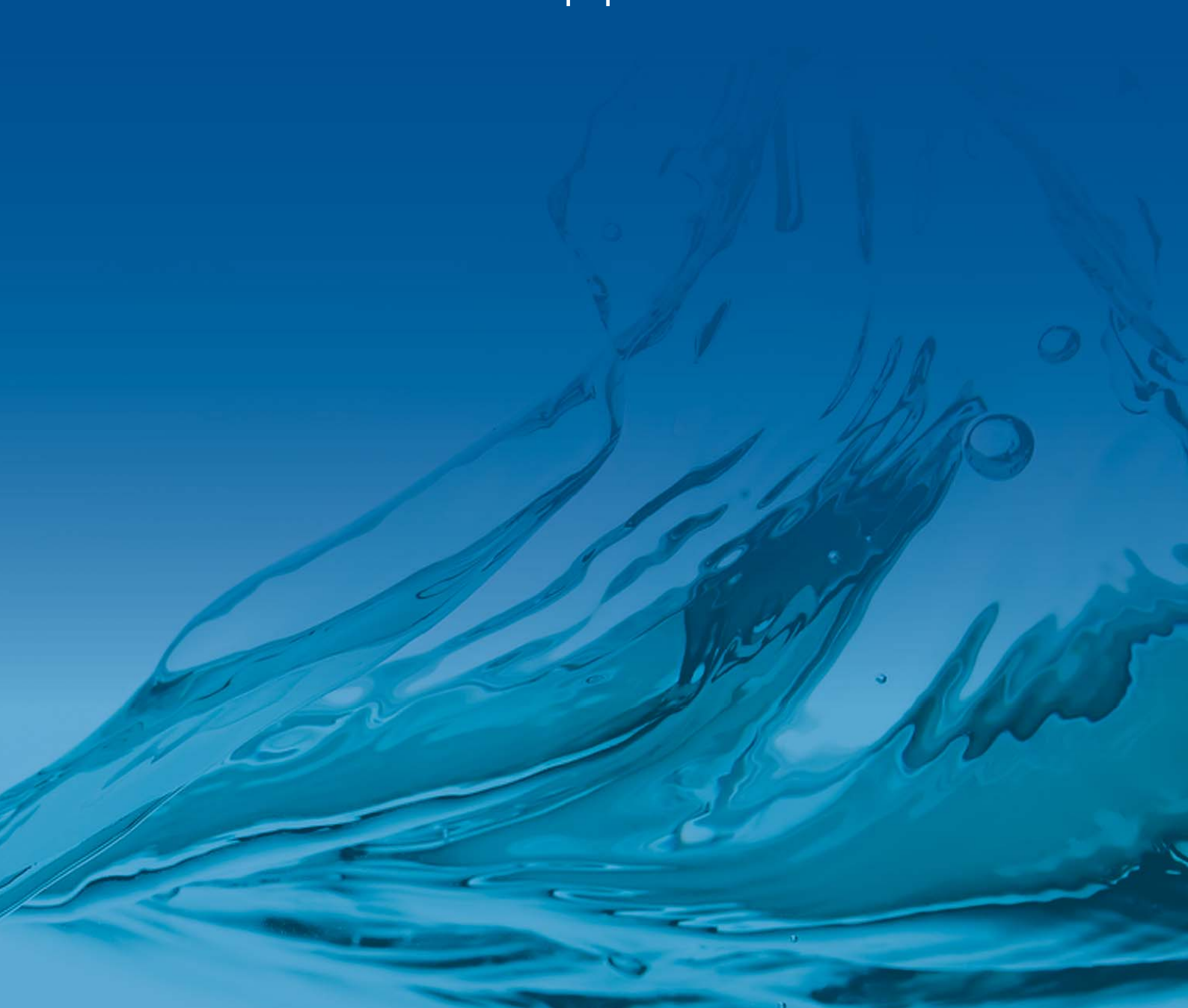


Water Treatment and Industrial Applications



about us

seko is an International Group, developing, manufacturing and delivering its products in more than 80 countries, through its subsidiaries and an extended network of distributors, agents and authorized dealers.

seko has been a significant manufacturer of metering pumps and dosing systems since 1976. It has gained a worldwide leader position in many fields by supplying innovating products and offering reliable solutions for the dosing, injection and transfer of liquids, together with an efficient control of the related chemical parameters.

seko is specialized in the design and production of peristaltic pump, solenoid metering pumps, motor driven metering pumps, measure and process instruments.



key figures

Foundation 1976

Subsidiary companies Italy, Spain, France, Germany, UK, Singapore, USA, Brazil, South Africa, China, Russia, Denmark, Sweden, Romania, UAE, Benelux, Turkey

Sales in over 80 countries

Employees over 750 employees worldwide

Revenue EUR 100 million consolidated

Certified according to ISO 9001:2000; GOST R

Pumps according to guidelines API 674 und API 675; 94/9 EG (ATEX)

manufacturing and logistic

AN EFFECTIVE INDUSTRIAL AND LOGISTIC PLATFORM:

- Lean production extended to all production plants
- 9 production sites located in 4 continents
- 20 subsidiaries with local inventory offering a fast delivery of products and spare parts

research & development

R&D IS ONE OF THE MOST IMPORTANT ASSET OF OUR COMPANY:

- A team of over 80 engineers provides optimal solutions to the different aspects of the projects using state-of-the technologies to optimize costs and significantly reduce the time to market.
- Mechanical and electronic engineers are divided in multidisciplinary teams, operating with parametric and interactive software.

quality

CERTIFIED QUALITY SYSTEM SINCE 1994

- Products certification according to international standards
- 100% products tested before shipment
- Test benches designed and made internally



about Asia



Asia is undoubtedly a region of great potential that offers significant opportunities for companies prepared to do business here.

It is a market of over 3 billions people, yet each nation in this region is diverse and so are their economies.

seko set up his companies in Singapore (1999) and in China (2003), so to be closer to each market, understanding its rules and complying with its specific demands.

Taking advantage of local offices, **seko** covers the whole Asia Pacific, India, China and Far East, providing an excellent service for both sales and after sales support.

key figures

Subsidiary companies Singapore and China (16 local offices in the region)

Sales in 16 countries

Employees over 200

Revenue EUR 10 million consolidated

Certified according to ISO 9001:2000; GOST R

Pumps according to guidelines API 674 und API 675; 94/9 EG (ATEX)

SOLENOID DOSING PUMPS

page 06

pages 06 - 11	TEKNA	up to 54 l/h ; up to 20 bar
pages 12 - 14	KOMPACT	up to 10 l/h ; up to 10 bar
page 15	INVIKTA	up to 6 l/h ; up to 7 bar

MOTOR DRIVEN PUMPS

page 16

HYDRAULIC DIAPHRAGM	MECHANICAL RETURN	pages 16 - 19	TORK	up to 7500 l/h ; up to 200 bar
		pages 20 - 23	STARK	up to 660 l/h ; up to 124 bar
MECHANICAL DIAPHRAGM	SPRING RETURN	pages 24 - 25	MS4	up to 2000 l/h ; up to 4 bar
		pages 26 - 27	MS3	up to 660 l/h ; up to 4 bar
		pages 28 - 29	MS1	up to 530 l/h ; up to 10 bar
		pages 30 - 31	MSA	up to 60 l/h ; up to 5 bar
PLUNGER	SPRING RETURN	pages 32 - 33	PS2	up to 1000 l/h ; up to 20 bar
		pages 34 - 35	PS1	up to 304 l/h ; up to 20 bar

AIR OPERATED DOUBLE DIAPHRAGM PUMPS

		page 38	AF0018 - AF0050
		page 39	AF0065 - AF0100
DUOTEK		page 40	AF0160 - AF0250
		page 41	AF0400 - AF0500
		page 42	AF0700 - AF1000
		page 45	AF0018 - AF0050
DUOTEK	FOR FOOD,	page 46	AF0100 - AF0160
FOOD &	PHARMACEUTICAL	page 47	AF0400 - AF0500
SANI DUOTEK	AND COSMETICS	page 48	AF0700 - AF1000
	INDUSTRY		
DAMPER	PNEUMATIC	pages 50 - 51	DAMPER 20 - 25 - 40 - 50
	PULSATION DAMPENER		

CONTROL AND MEASURING INSTRUMENTS

MULTI-PARAMETER	pages 52 - 53	KONTROL 800
SINGLE PARAMETER	pages 54 - 55	KONTROL 500
SINGLE PARAMETER	pages 56 - 57	KONTROL 40
MULTI-PARAMETER PHOTOMETER	pages 58 - 59	PHOTOMETER SYSTEM
	pages 60 - 61	PH/REDOX PROBES
	pages 62 - 65	CONDUCTIVITY PROBES
	page 66	DISSOLVED OXIGEN PROBES
	page 67	FLOW SENSOR
	pages 68 - 69	POTENTIOSTATIC PROBES
	pages 70 - 73	TURBIDIMETRIC AND SUSPENDED SOLID PROBES
	pages 74 - 79	CABLES, BUFFER SOLUTIONS AND PROBE ACCESSORIES

Tekna Series

Clever

Just 5 Models, Just PVDF,
All functions in one pump

○ **5 models** that cover 0,4 to 54 l/h with an output pressure up to 20 Bar

○ **1 Casing** allows skids to be pre-constructed, as the fixing points remain constant, and the pumps can be selected on confirmation of the dosing flow

evo **Inventory Reduction**
Reduce spares stock holding



Compatible

PVDF pump head and ceramic ball valve as standard

● **PVDF** is suitable for almost all chemical used in the Industrial, Waste Water Treatment and potable Water applications

● The use of **Ceramic balls** as standard improves the pumping reliability and the chemical compatibility of the whole liquid end

evo **Full chemical compatibility**



Reliable

Long life diaphragm tested to give 5 years working life

● The advanced design and manufacturing process allows the diaphragm to have a unique life expectancy

● Made of pure solid **PTFE**, the diaphragm is compatible with most chemicals

● The diaphragm has been tested over a period of 5 years giving superior results

● Routine diaphragm replacement is no longer a requirement

evo **Reduced maintenance**
Full chemical compatibility



The **Evolution** of solenoid dosing pumps

A new concept of programming menu. Once a function is selected, the pump displays only the parameters that are associated with the specific function

PVDF pump head and ceramic ball valve as standard

Stabilized Multi Power Supply 100÷240 Vac 50/60 Hz with reduced consumption



Steady Dosing Performance

Stabilized Multi Power Supply 100÷240 Vac 50/60 Hz with reduced consumption

- Reduced power consumption as the solenoid only draws the required power to activate the pump, based on the working conditions

evo **Stable dosing performance:** improve pump efficiency as performance is not affected by power supply fluctuations

Reduce inventory holding



Intuitive programming

A new concept of programming menu

- Programming menu are self explanatory and available in 5 languages

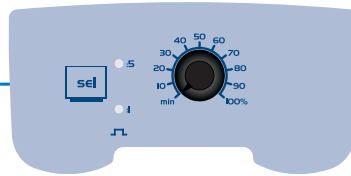
- **Intelligent Display**, once a function is selected the pump will only display the parameters to set, which are linked to the selected function

evo **Reduced programming time**





Tekna Analogue version

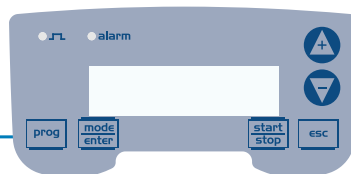


AKL Costant dosage

Analogue dosing pump with constant flow rate manually adjustable by control dial on the front panel, two frequency range (0÷20% or 0÷100%), Power-ON led indicator and level control input.



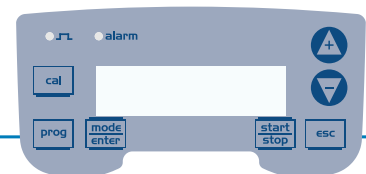
Tekna Digital version



TPG Proportional dosage

Digital dosing pump with constant flow rate manually adjustable, proportional flow rate according to an external analog (4÷20 mA) or digital pulse signal (e.g. from water meter).

- Timer function, ppm dosing, statistics, password and On/Off input (remote switch).

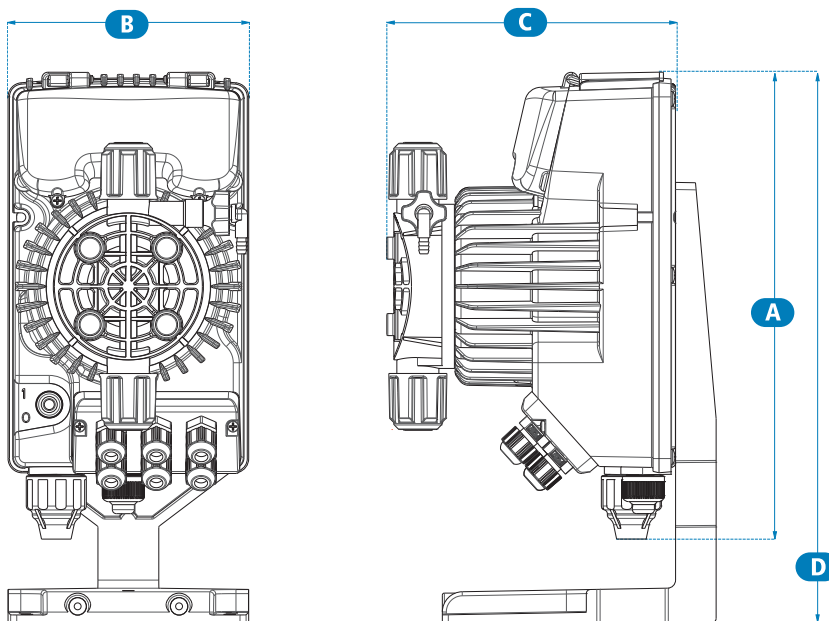
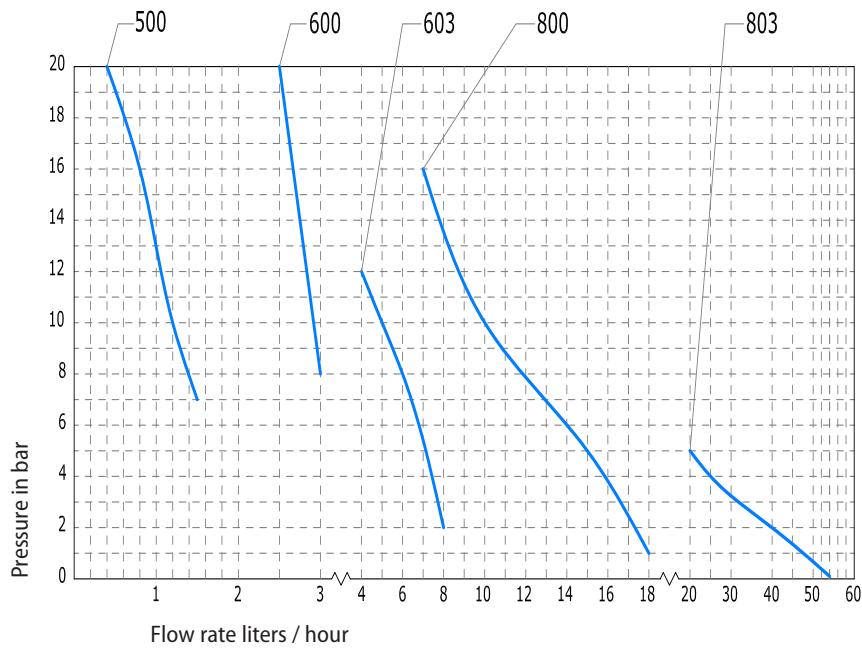


TPR Proportional dosage

Digital dosing pump with pH/Redox control meter built in.

- Digital interface for constant or proportional dosing, depending on the measured pH or Rx value
- PT100 probe input for thermal compensation
- Repetition alarm relay
- Input On-Off for remote control
- 4÷20 mA output for measure transmission

Flow Rate and Dimensional Drawings



DIMENSIONS [mm]

Model	500 600 603 800	803
A (Height)	231	
B (Width)	119	
C (Depth)	145	149
D (Max Height)	257	

Installation Kit

The pumps are supplied complete with the indispensable accessories for their correct installation as: Foot filter, Screws, Fixing bracket, Injection valve, 2m PE tube (delivery), 4 m PVC tube (suction), Seal in FPM and EPDM



Wall-mounted bracket



Injection valve (PVC) (G3/8", G1/2")



Foot valve (PVC)



PVC Suction tube



PE Delivery tube



Vertical mounting bracket

Pumps Identification

Version		
AKL	Analogue	Analogue dosing pump with constant flow rate manually adjustable and level control input
TPG	Digital	Digital dosing pump with constant flow rate manually adjustable, with proportional flow rate according to an external analog (4÷20 mA) or digital signal (water meter)
TPR		Digital proportional dosing pump with pH/Redox control meter built in

Model	Pressure [bar]	Flow rate [L/h]	Stroke capacity [cc/stroke]	Ø Connections IN / OUT [mm]	Frequency max [stroke/min]	Consumption [W]	Weight [Kg]	Wooden box size (LxWxH)
600	20	2,5	0,35	4 / 6 suc. 4 / 7 dis.	120	20	3,9	285x185x240 (mm)
	18	3	0,42					
	14	4,2	0,58					
	8	7	0,97					
603	12	4	0,42	4 / 6	160	20	3,4	
	10	5	0,52					
	8	6	0,63					
	2	8	0,83					
800	16	7	0,38	4 / 6	300	40	4,4	
	10	10	0,55					
	5	15	0,83					
	1	18	1,00					
803	5	20	1,11	8 / 12	300	40	4,4	
	4	25	1,39					
	2	38	2,22					
	0,1	54	3,00					

Power supply		
N	100÷240 Vac	50-60 Hz
O	24÷48 Vac (For AKL 603 series only. For APG 603 : 30-48Vac/Vdc)	

Liquid end material		
H	Pump head : PVDF	Balls : Ceramic Diaphragm : PTFE

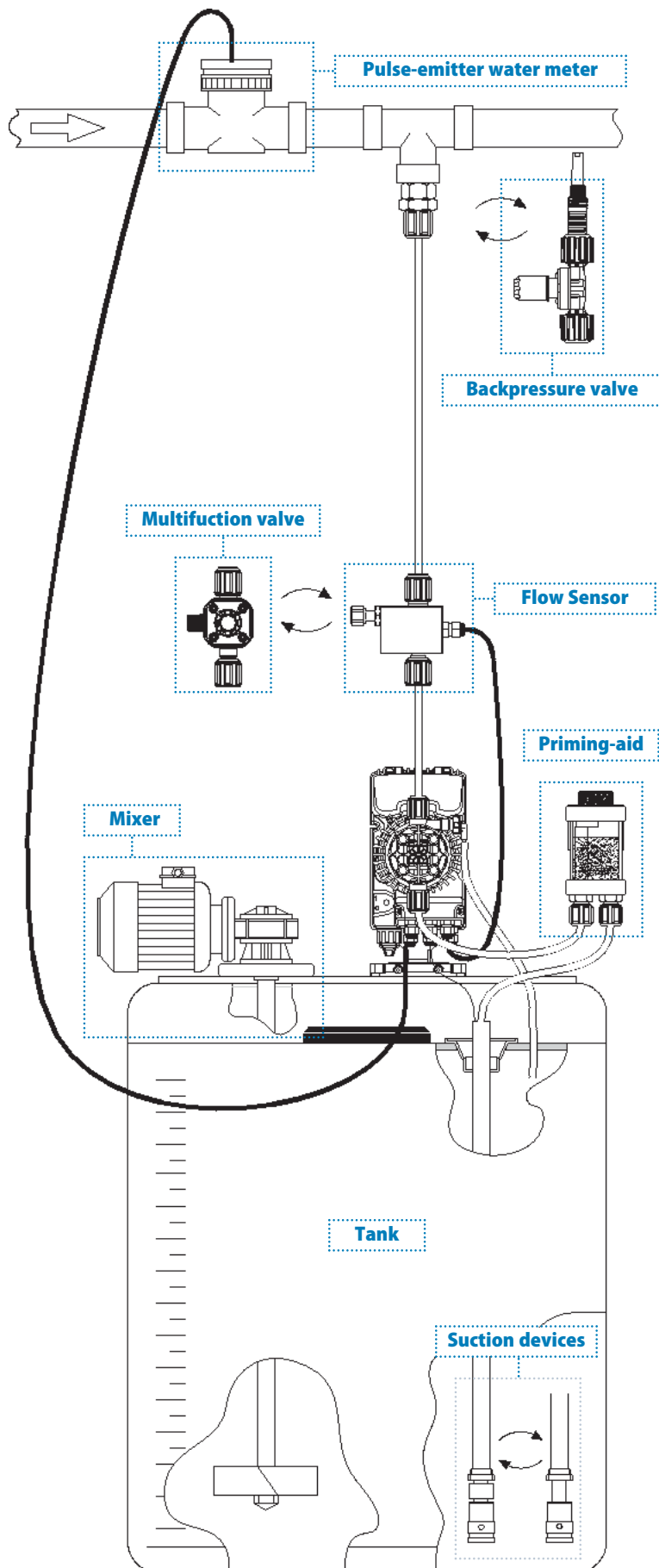
Installation Kit	
P	PVDF

Seals	
0	FPM
1	EPDM

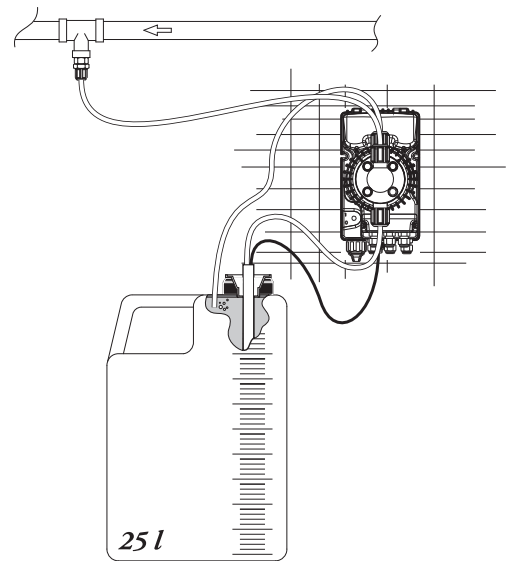
Options	
800	Standard

AKL | 603 | N | H | P | O | 800

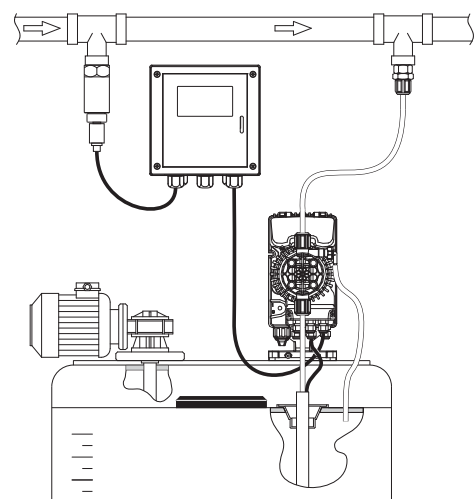
Typical Installation



Degassing head installation



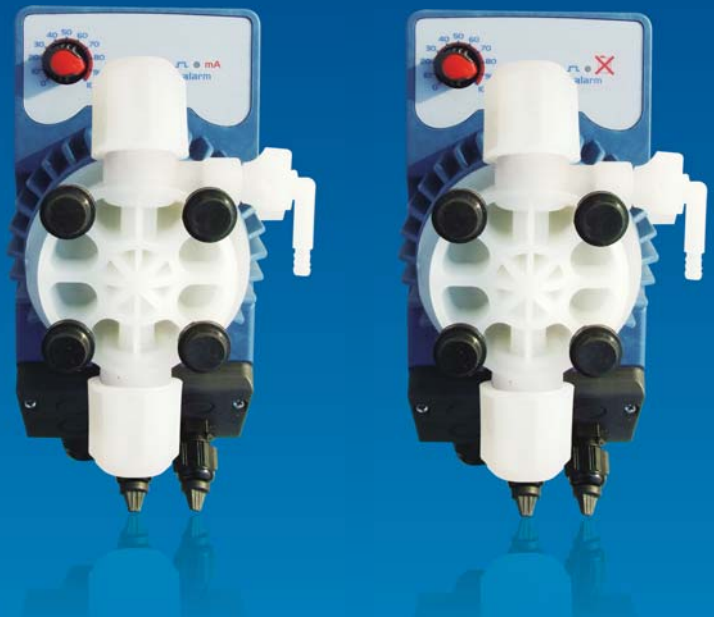
With control instrument



Kompact Series

Kompact is a simple solenoid dosing pump, operating with a micro-processor to manage the dosing.

Its external enclosure has an IP65, which guarantees a protection versus splashing water and aggressive environments.



Dosing Mode

The pump head has a manual priming valve.

The flow rate is manually or automatically (by signal input) adjustable from 0 (pump stop) to 100% of the max flow rate. Moreover it is equipped with the low level alarm to stop or not the pump.

Pumps Head

BODY	PVDF
BALL VALVES	Ceramic
SEAT VALVE	FPM/EPDM
DIAPHRAGM	PTFE

The parts in contact with the liquid have been chosen in order to guarantee perfect compatibility with most chemical normally in use.

Long life diaphragm

Tested to give 5 years working life



- The advanced design and manufacturing process allows the diaphragm to have a unique life expectancy
- Made of pure solid PTFE, the diaphragm is compatible with most chemicals
- The diaphragm has been tested over a period of 5 years giving superior results
- Routine diaphragm replacement is no longer a requirement

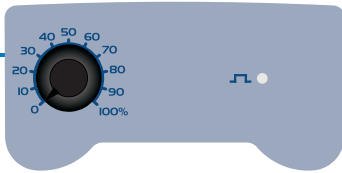
Graphic display and Keypad

Kompact digital is programmable via keypad and 2 line x 8 digits backlit display.

Wall-mounted

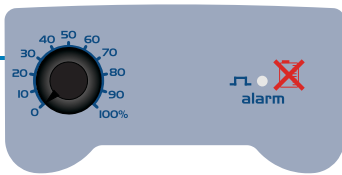
Kompact pump can be fixed on wall by fixing bracket provide with the pump or top of drums by the optional foot fixing bracket.

Kompact Analogue version



AMS Costant dosage

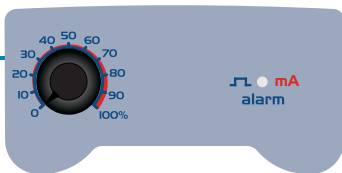
Constant flow rate manually adjustable by control dial on the front panel, Power-ON led indicator.



AML Costant dosage

Constant flow rate manually adjustable by control dial on the front panel, two flow rate range:

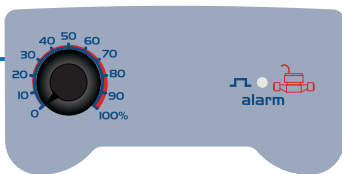
- 0÷20% with switch in P position,
 - 0÷100% with switch in C position,
- Power-ON led indicator and level control input



AMM Proportional dosage

Constant flow rate manually adjustable, proportional flow rate according to an external analogue signal (4÷20 mA), Power-ON led indicator and level control input. The two different modes are:

- **Constant** (switch in C position) The pump constantly doses the rate selected with the potentiometer.
- **Proportional** (switch in P position) The pump doses proportionally to the analogue input signal (4÷20 mA).



AMC Proportional dosage

Constant flow rate manually adjustable, proportional flow rate according to a digital pulse signal (e.g. from water meter), Power-ON led indicator and level control input.

The two different modes are:

- **Constant** (switch in C position) The pump constantly doses the rate selected with the potentiometer.
- **Proportional** (switch in P position) The pump doses proportionally to the digital input signal (Division mode 1 : 1). Maximum input frequency: 80Hz.

Installation Kit

The pumps are supplied complete with the indispensable accessories for their correct installation as:

Foot filter, Screws, bracket, Injection valve, 2m PE tube (delivery), 4 m PVC tube (suction), Seal in FPM and EPDM



Wall-mounted bracket



PVC Suction tube



PE Delivery tube



Injection valve (PVC)
(G3/8", G1/2")



Foot valve (PVC)



Vertical mounting bracket
(OPTIONAL)

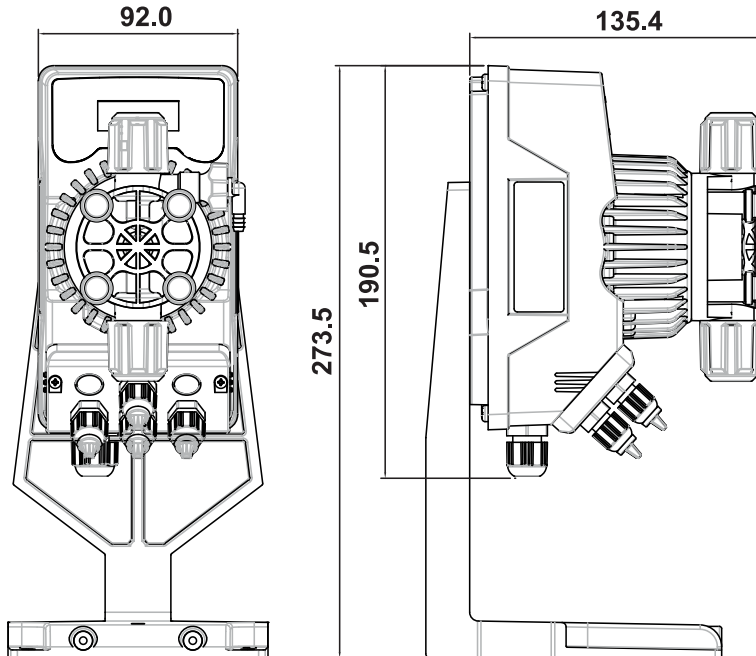
Technical specifications

Model	Flow rate [l/h]	Pressure [bar]	Stroke capacity [cc/stroke]	Ø Connections IN / OUT [mm]	Frequency max [stroke/min]	Weight [Kg]	Wooden box size (LxWxH) [mm]
200	5	8	0,52	4 / 6	160	2,4	285x185x180
	3	10	0,31				
	9	2	0,93				
201	1	7	0,10	4 / 6	160	2,4	285x185x180

Pump Head materials	Type	Body Pump	Balls	Seat valve	Diaphragm
	P	PVC	Ceramic	FPM - EPDM	PTFE

Enclosure	Materials	Protection degree	Power supply
	PP	IP65	

DIMENSIONAL DRAWINGS



TECHNICAL FEATURES

FLOW RATES	5 l/h @ 8 bar 3 l/h @ 10 bar 9 l/h @ 2 bar 1 l/h @ 7 bar
POWER SUPPLY	100÷240 Vac 50/60 Hz
STROKE RATE	160 strokes/minute
ENCLOSURE	PP protection degree IP65
INSTALLATION KIT	Included

Invikta Series

Invikta is a simple yet reliable series of micro-processor based solenoid dosing pumps.

Ideal applications are: OEMs, Swimming Pools, Car Wash, Cooling Towers, RO Systems and many other applications.

KCL

Costant dosage

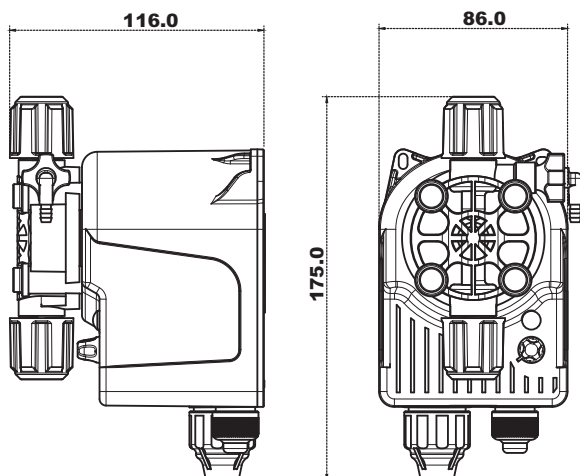
Analog dosing pump with costant flow rate, manually adjustable by control dial on the front panel, with level control input. Power-ON led indicator.



Technical specifications

Liquid end material				Model	635		
Head Type	VF	VE	HF	Pressure [bar]	7	5	2
Body Pump	PVC		PVDF	Flow rate [l/h]	3	5	6
Balls	Ceramic			Stroke/min	140		
Seals	FPM	EPDM	FPM	cc/stroke	0.36	0.60	0.71
Diaphragm	PTFE			Ø Connections IN / OUT [mm]	4 / 6		
				Power Consumption	15 W		
				Weight [Kg]	2,4		
				Wooden box size (LxWxH) [mm]	285x185x180		

DIMENSIONAL DRAWINGS



Installation Kit



Wall-mounted bracket



PVC Suction tube



PE Delivery tube



Injection valve (PVC)
(G3/8", G1/2")



Foot valve (PVC)



Vertical mounting bracket
(OPTIONAL)

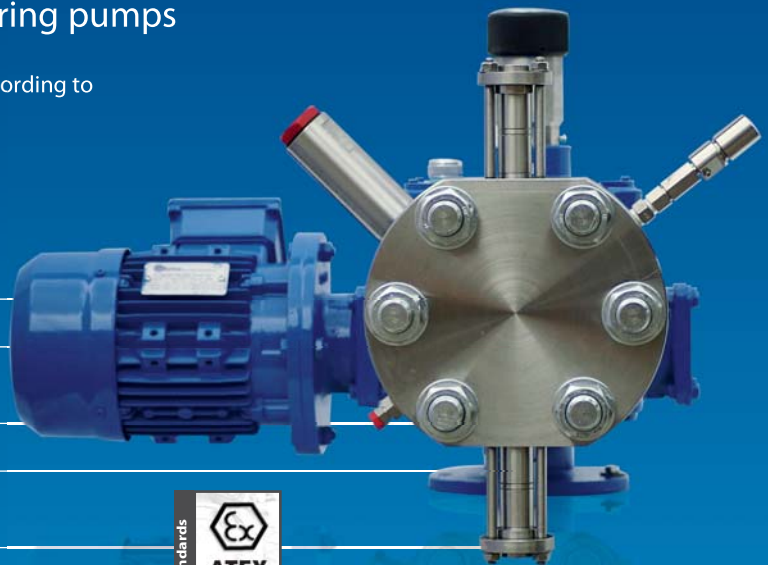
Tork Series

Hydraulic Double Diaphragm Metering pumps

A line hydraulic diaphragm metering pumps designed according to the **API 675 Standards**.

FEATURES

■ FLOW RATE	up to 7500 l/h
■ MAX PRESSURE	up 200 bar
■ TEMPERATURE	Ambient: from -5 °C to 40 °C Fluid: from -5 °C to 50 °C
■ CONTACT MATERIALS	SS316L; PP; PVDF
■ COMPLIANCE	STANDARD ACCORDING TO API 675



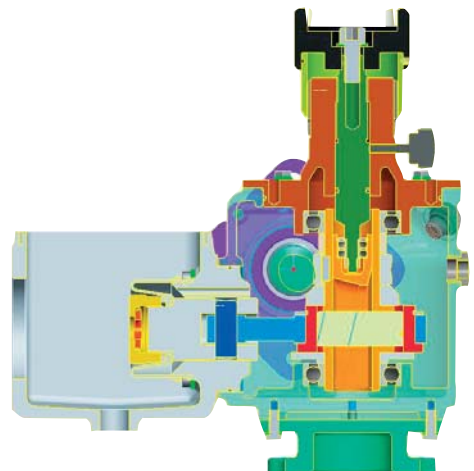
for zone 1
and zone 2

Mechanisms

Mechanical return type available in various sizes.

Main characteristics:

- Internal worm gearbox, oil bath lubricated with low noise emissions
- Rotating parts on bearings to minimise power consumption
- Each mechanism comes complete with an internal gearbox; pumps with different speeds (strokes/min) can therefore be joined, allowing for greater flexibility in selecting the pumps themselves
- High precision stroke adjustment, both manual and by means of an electric or pneumatic actuator or frequency converter.
- Accuracy within $\pm 1\%$



Venting system

Aside from guaranteeing automatic venting during operation, the venting system also facilitates the pump priming by favouring the air purge by means of a manual action.



Pressure relief valve

Protects the pump against unexpected overpressure.



Cartridge valves

In order to ensure maximum dosing precision, even for small flow rates, double and triple ball configurations are available with high precision seats.

The metal gaskets for the SS316L stainless steel heads, and the FPM gaskets for those in plastic, guarantee maximum compatibility.

TY, TT, TH: Hydraulic double diaphragm heads

The ideal solution for applications requiring high levels of operational safety and reliability

- Zero leakage; watertight construction for dosing toxic, corrosive and other hazardous liquids, for which the absence of leaks is fundamental
- Protection against external pollutants which could contaminate the liquid being pumped if using plunger pumps
- Double diaphragm, double protection; if one of the two diaphragms is damaged, the protection system immediately signals the anomaly; the pump is nevertheless permitted to continue to operate, thereby preventing immediate downtime
- Flexibility of use; the PTFE diaphragms are compatible with a vast assortment of liquids
- Flow rate modularity; the rated flow rate can be changed by simply replacing the plunger and the relevant seal cartridge
- Solid suspensions; the diaphragm's proper positioning is ensured by a mechanical system which does not require the use of perforated shields on the process side, thereby allowing for liquids containing solid suspensions to be pumped.
- Construction materials; the parts in the standard configuration that make contact with the liquid are made from AISI 316L stainless steel, PP and PVDF.

Mechanical refilling system

Maintains a constant level of the hydraulic fluid, thereby guaranteeing maximum precision and repeatability. Keeping also under control the deformation of diaphragm thereby increasing its duration.



Double diaphragm with rupture detector

In the event of a rupture of one of the two diaphragms, the detector activates either a local visual alarm or a pressure switch. The second diaphragms ensure the continued operation of the pump. This allows for scheduled maintenance.

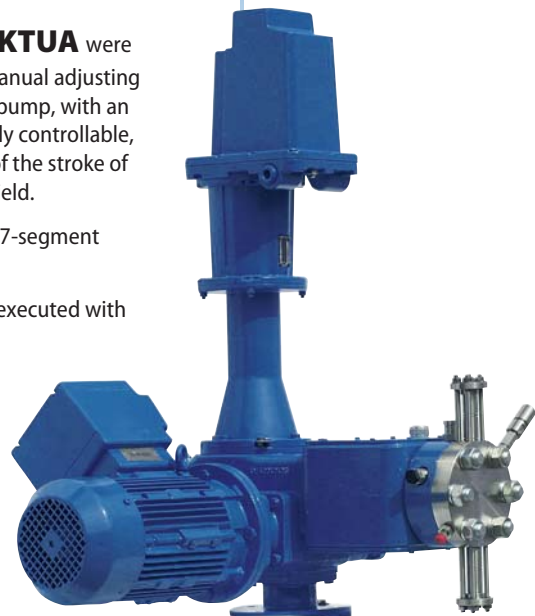


Flow Rate adjustment

- Easy to handle knob with high visibility nonius for the best flow adjustment.
- Optionally automatic variation by electrical actuators **AKTUA**.

The electrical actuators **AKTUA** were designed to replace the manual adjusting device of the flow, on the pump, with an automatic system, remotely controllable, which acts on the length of the stroke of the pump, directly in the field.

- Internal display 4-digit, 7-segment display.
- Calibration can also be executed with system running.
- Available in standard version for installation in areas not classified, or ATEX compliant for installation in hazardous areas.



Applications

Water treatment and Industrial sectors

- Municipalities
- Wastewater
- Chemical
- Food & Beverages
- Detergents
- Power Generation
- Environment
- Petrochemical
- Pharmaceutical
- Paper
- Textile

Accessories

- Flow rate calibration pots
- Pulsation dampers
- Safety valves
- Back pressure valves

Options

- Flanged connections
- Heated or cooled heads
- Transmission of the diaphragm rupture signal

Tork TY N0

LIQUID END MATERIAL		PP						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
12	10	47	2,8	0,74	12	174	1/2" F	0,18
15		70	6,5	1,72				
25		93	25	6,60				
35		93	49	12,94				

LIQUID END MATERIAL		PVDF						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
12	10	47	2,8	0,74	20	290	1/2" F	0,18
15		70	6,5	1,72				
25		93	25	6,60				
35		93	49	12,94				

LIQUID END MATERIAL		SS316L						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
12	10	47	2,7	0,71	40	580	1/4" F	0,18
15		70	6,5	1,72				
25		93	25	6,60				
35		93	49	12,94				

Tork TY N1

LIQUID END MATERIAL		PP						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
30	25	117	113	29,85	12	174	1/2" F	1,10
50		93	254	67,10			1" F	
70		93	501	132,35				

LIQUID END MATERIAL		PVDF						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
30	25	117	111	29,32	20	290	1/2" F	1,10
50		93	254	67,10			1" F	
70		93	501	132,35				

LIQUID END MATERIAL		SS316L						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
30	25	117	106	28,00	40	580	1/2" F	1,10
50		93	254	67,10			3/4" F	
70		93	501	132,35			1" F	

Tork TY N2

LIQUID END MATERIAL		PP						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
70	35	117	865	228,51	12	174	1" F	2,20
90		93	1200	317,01			1 1/2" F	
120		93	2065	545,52			7	

LIQUID END MATERIAL		PVDF						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
70	35	117	865	228,51	20	290	1" F	2,20
90		93	1200	317,01			1 1/2" F	
120		93	2065	545,52			7	

LIQUID END MATERIAL		SS316L						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
70	35	117	865	228,51	20	290	1" F	2,20
90		93	1200	317,01			2" F	
120		93	2065	545,52			7	

Technical Features

Tork TY N3

LIQUID END MATERIAL		SS316L						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
130	50	78	2600	686,85	10	145	3" F	5,5
		117	3900	1030,27				7,5

Tork TY N4

LIQUID END MATERIAL		SS316L						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
130	70	117	6000	1585,03	10	145	3" F	18,5
		145	7500	1981,29				

high pressure up to 120 bar

Tork TT

LIQUID END MATERIAL		SS316L							
TYPE	PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
			Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
N0	12	10	93	4,5	1,19	120	1740	1/4" F	0,18
	20		70	11,7	3,09	57	827		
N1	15	25	117	26,5	7,00	120	1740	1/4" F	1,10
	20			47	12,41				
	30			99	26,15	68	986	1/2" F	
N2	20	35	117	70	18,49	120	1740	1/4" F	2,20
	25			94	24,83			1/2" F	
	35		93	162	42,80	80	1160	3/4" F	
			117	202	53,36				

high pressure up to 200 bar

Tork TH

LIQUID END MATERIAL		SS316L							
TYPE	PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
			Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
N1	10	25	117	10	2,64	200	2901	1/4" F	1,10
	15			24	6,34				
N2	15	35	117	35,2	9,30	200	2901	1/4" F	2,20
	20			67	17,70				

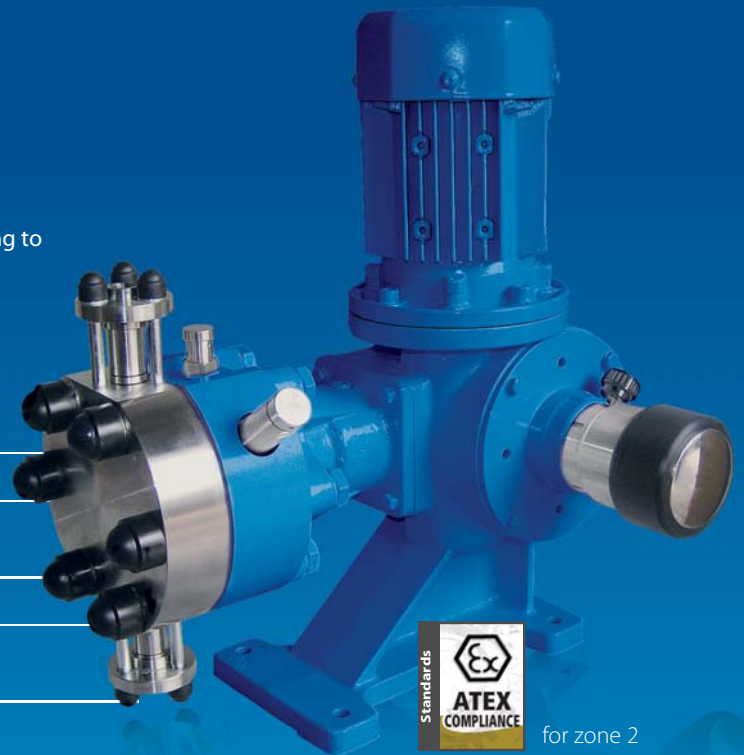
Stark Series

Hydraulic diaphragm Metering pumps

A line hydraulic diaphragm metering pumps designed according to the **API 675 Standards**.

FEATURES

■ FLOW RATE	up to 660 l/h
■ MAX PRESSURE	up 124 bar
■ TEMPERATURE	Ambient: from -5 °C to 40 °C Fluid: from -5 °C to 50 °C
■ CONTACT MATERIALS	SS316L; PP; PVDF; PVC
■ COMPLIANCE	STANDARD ACCORDING TO API 675



Mechanisms

Mechanical return type available in various sizes

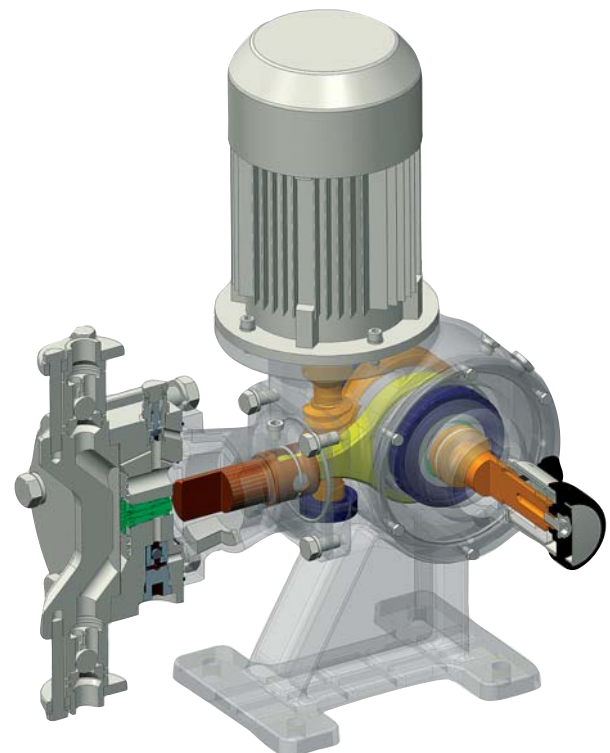
Main characteristics:

- Internal worm gearbox, oil bath lubricated with low noise emissions
- Rotating parts on bearings to minimise power consumption
- High precision stroke adjustment, both manual and by means of an electric actuator

Hydraulic diaphragm heads

The ideal solution for applications requiring high levels of operational safety and reliability

- Zero leakage; hermetic construction for dosing toxic, corrosive and other hazardous liquids, for which the absence of leaks is fundamental
- Protection against external pollutants which could contaminate the liquid being pumped
- Flexibility of use; the PTFE diaphragms are compatible with a vast assortment of liquids



Mechanical refilling system

Maintains a constant level of the hydraulic fluid, thereby guaranteeing maximum precision and repeatability. Keeping also under control the deformation of diaphragm thereby increasing its duration.



Venting system

Aside from guaranteeing automatic venting during operation, the venting system also facilitates the pump priming by favouring the air purge by means of a manual action.



Pressure relief valve

Protects the pump against unexpected overpressure.



Cartridge valves

In order to ensure maximum dosing precision, even for small flow rates, double and triple ball configurations are available with high precision seats. The metal gaskets for the SS316L stainless steel heads, and the FPM gaskets for those in plastic, guarantee maximum compatibility.



Flow Rate adjustment

- Easy to handle knob with high visibility nonius for the best flow adjustment.
- Optionally automatic variation by electrical actuators **AKTUA**.

The electrical actuators **AKTUA** were designed to replace the manual adjusting device of the flow, on the pump, with an automatic system, remotely controllable, which acts on the length of the stroke of the pump, directly in the field.

- Internal display 4-digit, 7-segment display.
- Calibration can also be executed with system running.
- Available in standard version for installation in areas not classified, or ATEX compliant for installation in hazardous areas.



Applications

Water treatment and Industrial sectors

- Municipalities
- Wastewater
- Chemical
- Food & Beverages
- Detergents
- Power Generation
- Environment
- Petrochemical
- Pharmaceutical
- Paper
- Textile

Accessories

- Flow rate calibration pots
- Pulsation dampers
- Safety valves
- Back pressure valves

Stark SC B0

LIQUID END MATERIAL		PP or PVC						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
12	10	112	6	1,59	15	218	1/2" F	0,18
		140	8	2,11				0,25
		186	11	2,91				0,18
20		70	12	3,17				0,25
		112	18	4,76				0,18
		186	29	7,66				0,25
30		93	34	8,98				0,18
		140	52	13,74				0,18
35		140	76	20,08				0,18
		186	97	25,62				0,25

LIQUID END MATERIAL		PVDF						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
12	10	112	6	1,59	20	290	1/2" F	0,18
		140	8	2,11				0,25
		186	11	2,91				0,18
20		70	12	3,17				0,25
		112	18	4,76				0,18
		186	28	7,40				0,25
30		93	33	8,72				0,18
		140	52	13,74				0,18
35		140	74	19,55				0,18
		186	96	25,36				0,25

LIQUID END MATERIAL		SS316L						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
12	10	112	3	0,79	124	1798	1/4" F	0,18
		140	4	1,06				0,25
		186	6	1,59				0,18
20		70	9	2,38	40	580		0,25
		112	15	3,96				0,18
		186	25	6,60				0,25
30		93	27	7,13	27	392		0,18
		140	46	12,15				0,18
35		140	64	16,91	20	290		0,18
		186	86	22,72				0,25

Stark SC B1

LIQUID END MATERIAL		PP or PVC						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
30	25	117	110	29,06	15	218	1/2" F	1,10
		186	175	46,23				1,50
40		78	130	34,34				0,75
		117	200	52,83				1,10
		235	420	110,95				1,50
50		93	228	60,23				1,10
		117	300	79,25				1,10
		186	500	132,09				1,50
		235	650	171,71				1,50

LIQUID END MATERIAL		PVDF						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
30	25	117	110	29,06	20	290	1/2" F	1,10
		186	170	44,91				1,50
40		78	125	33,02				0,75
		117	200	52,83				1,10
		235	415	109,63				1,50
50		93	225	59,44				1,10
		117	295	77,93				1,10
		186	500	132,09				1,50
		235	640	169,07				1,50

LIQUID END MATERIAL		SS316L						
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE		PRESSURE		CONNECTION	MOTOR
		Strokes/min	L/h	gph	Bar	p.s.i.	Suc/Dis (BSPP)	kW
15	25	93	18	4,76	124	1798	1/4" F	1,10
20		93	35	9,25				
		117	44	11,62				
		235	90	23,78				
30		62	63	16,64	68	986	3/4" F	0,75
		117	110	29,06				1,10
		186	170	44,91				1,50
40		78	130	34,34	35	508	3/4" F	0,75
		117	200	52,83				1,10
		186	330	87,18				1,50
		235	420	110,95				1,50
50		62	150	39,63	24	348	1" F	0,75
		93	240	63,40				1,10
		117	310	81,89				1,50
		186	510	134,73				1,50
		235	660	174,35				1,50

MS4 Series

Mechanical Diaphragm Metering pumps

MS4 pumps are mechanical diaphragm metering pumps featuring a spring return mechanism in an cast iron housing.



FEATURES

■ FLOW RATE	from 800 to 2000 L/h
■ MAX PRESSURE	4 bar
■ STROKE RATE	47 – 58 – 93 – 116 strokes/minute
■ DIAPHRAGM DIAMETER	210 mm
■ MOTOR	1.1 Kw (standard, IP 55)
■ STROKE LENGTH	20 mm

TECHNICAL FEATURES

MODEL	DIAPHRAGM DIAMETER [mm]	STROKE LENGTH [mm]	STROKES RATE [Strokes/min]	FLOW RATE [L/h]	MAX PRESSURE [bar]		CONNECTION	MOTOR [kW]	WEIGHT [Kg]		WOODEN BOX SIZE (LxWxH) (mm)
					SS316L	PVC PVDF			SS316L	PVC PVDF	
MS4G210L	210	20	93	1600	4	4	DN50-PN10 RF GB9119-2000	1,1	160	120	800x600x1025
MS4G210C			116	2000							

PUMP HEAD MATERIALS

LIQUID END

PVC liquid end (standard) or SS316L or PVDF.

PTFE DIAPHRAGM

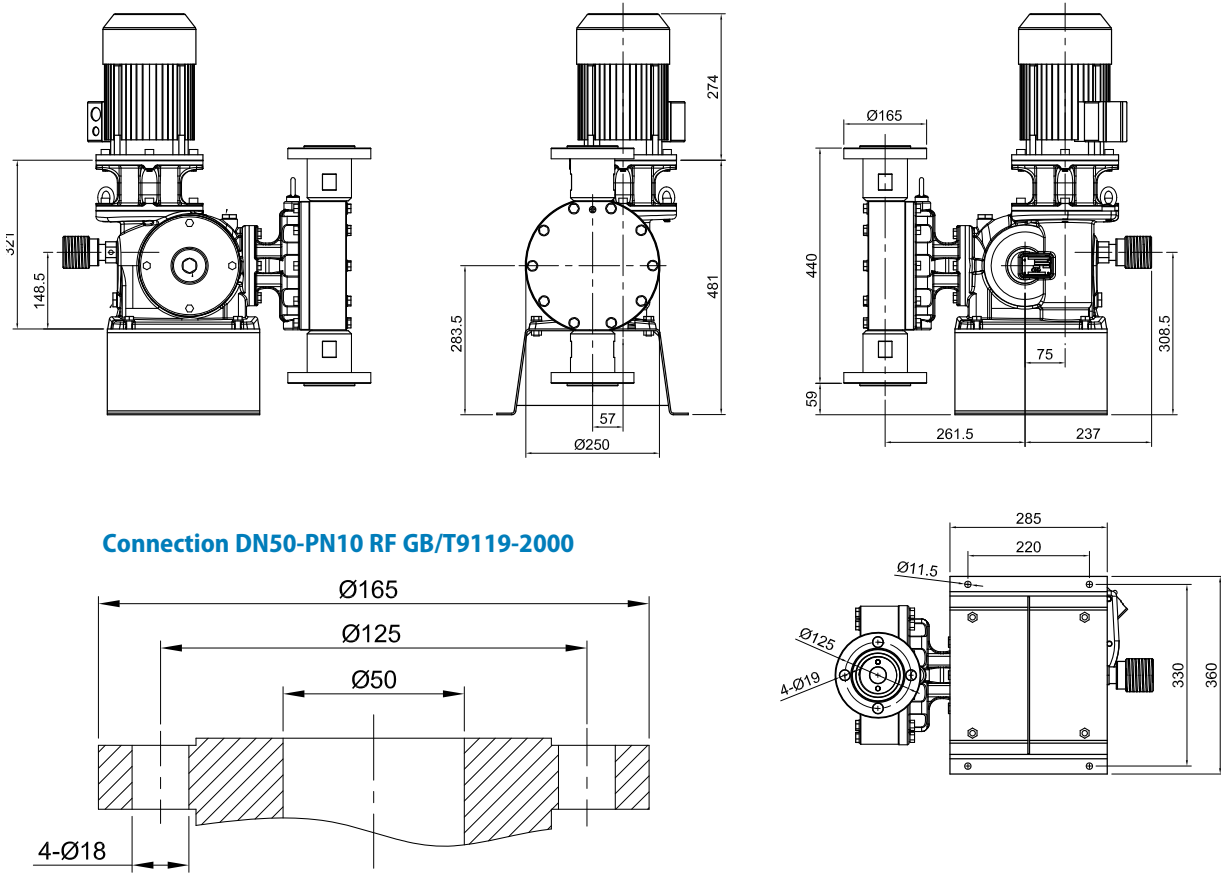
The material in contact with the liquid to be dosed are listed in the “pump head materials” table (special materials may be supplied on request).

MAX DOSAGE TEMPERATURE

- SS316L pump head: 90° C
- PVC • PVDF pump head: 40° C

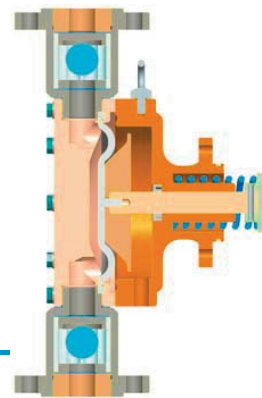
Every pump can be equipped with frequency-conversion motor or explosion-proof motor or electric actuator which accepts 4-20mA signal.

DIMENSIONAL DRAWINGS



Connection DN50-PN10 RF GB/T9119-2000

	STANDARD		ON REQUEST
	21	31	41
PUMP HEAD	SS316L	PVC	PVDF
DIAPHRAGM	PTFE		
SEAL	PTFE		
VALVES	Ceramic		
VALVE SEATS	SS316L	PVC	PVDF



M S4 G 210 C 21 Q4 080

PUMP IDENTIFICATION

- OPTIONAL
- MOTOR
- PUMP HEAD MATERIALS
- STROKES
- DIAPHRAGM DIAMETER
- STROKE LENGTH
- MECHANISM TYPE
- MODEL

MS3 Series

Mechanical Diaphragm Metering pumps

MS3 pumps are mechanical diaphragm metering pumps featuring a spring return mechanism in an cast iron housing.

FEATURES

■ FLOW RATE	660 L/h
■ MAX PRESSURE	4 bar
■ STROKE RATE	156 strokes/minute
■ DIAPHRAGM DIAMETER	165 mm
■ MOTOR	0.75 Kw (standard IP 55)
■ STROKE LENGTH	6 mm



TECHNICAL FEATURES

MODEL	DIAPHRAGM DIAMETER [mm]	STROKE LENGTH [mm]	STROKES RATE [Strokes/min]	FLOW RATE [L/h]	MAX PRESSURE [bar]		CONNECTION	MOTOR [kW]	WEIGHT [Kg]		WOODEN BOX SIZE (LxWxH) (mm)
					SS316L	PVC PVDF			SS316L	PVC PVDF	
MS3C165H	165	6	156	660	4	4	1"gf	0.75	40	33	615x405x810

PUMP HEAD MATERIALS

LIQUID END

PVC liquid end (standard) or SS316L and PVDF.

PTFE DIAPHRAGM

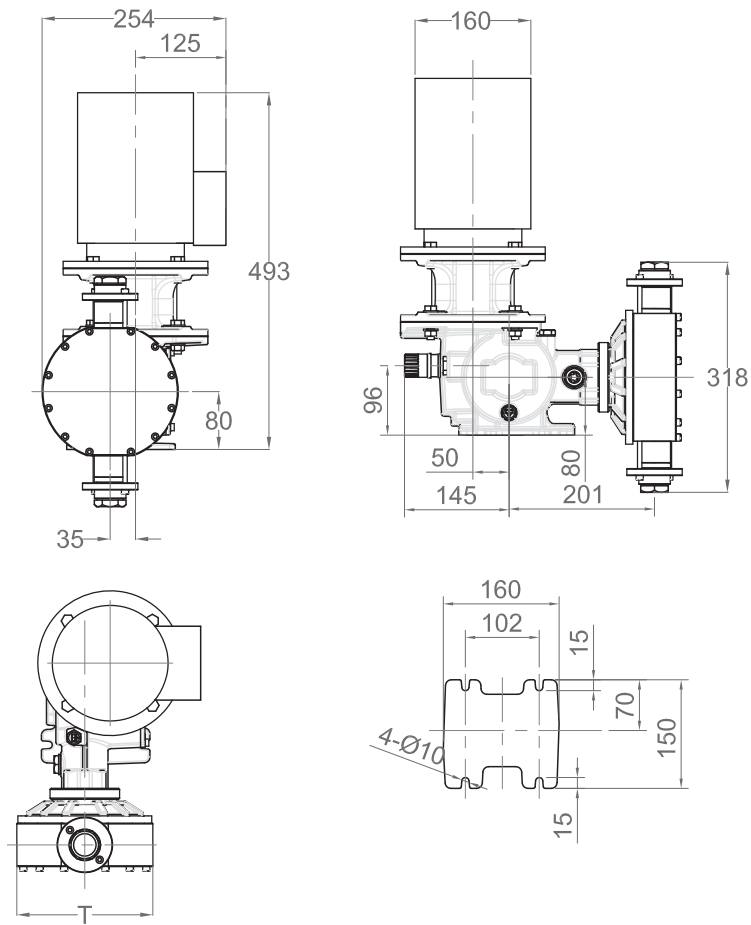
The material in contact with the liquid to be dosed are listed in the "pump head materials" table (special materials may be supplied on request).

MAX DOSAGE TEMPERATURE

- SS316L pump head: 90° C
- PVC and PVDF pump head: 40° C

Every pump can be equipped with frequency-conversion motor or explosion-proof motor or electric actuator which accepts 4-20mA signal.

DIMENSIONAL DRAWINGS



	STANDARD		ON REQUEST	
	21/24	31/34	51/54	41/44
PUMP HEAD	SS316L	PVC	PP	PVDF
DIAPHRAGM	PTFE			
SEAL	FPM / EPDM			
VALVES	Ceramic			
VALVE SEATS	SS316L	PTFE	PTFE	PVDF

M	S3	C	165	H	21	Q4	080	PUMP IDENTIFICATION
								■ OPTIONAL
								■ MOTOR
								■ PUMP HEAD MATERIALS
								■ STROKES
								■ DIAPHRAGM DIAMETER
								■ STROKE LENGTH
								■ MECHANISM TYPE
								■ MODEL

MS1 Series

Mechanical Diaphragm Metering pumps

MS1 pumps are mechanical diaphragm metering pumps featuring a spring return mechanism in an aluminium housing.

FEATURES

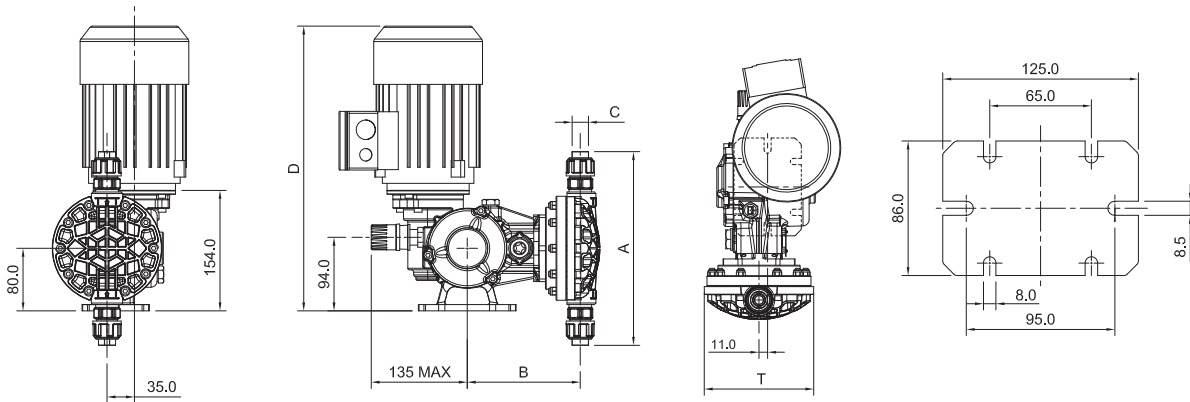
■ FLOW RATE	from 5,5 to 530 L/h
■ MAX PRESSURE	10 bar
■ STROKE RATE	58 – 78 – 116 strokes/minute
■ DIAPHRAGM DIAMETER	from 64 to 165 mm
■ MOTOR	standard 0,18 – 0,25 – 0,37 Kw (IP 55)
■ STROKE LENGTH	2 mm – 4 mm – 6 mm



TECHNICAL FEATURES

MODEL	DIAPHRAGM DIAMETER [mm]	STROKE LENGTH [mm]	STROKES RATE [Strokes/min]	FLOW RATE [L/h]	MAX PRESSURE [bar]		CONNECTIONS		MOTORS [kW]	WEIGHT [Kg]		WOODEN BOX SIZE (LxWxH) (mm)
					SS316L PVDF	PP	SS316L	PP		SS316L	PP PVDF	
MS1A064A	64	2	58	5,5	10	10	1/4 GF	1/4 GF DN15	0,18	15	13	430x280x530
MS1A064B			78	8								
MS1A064C			116	11								
MS1A094A	94	2	58	20	10	10	3/8 GF	3/8 GF DN15	0,25	16	14	
MS1A094B			78	26								
MS1A094C			116	40								
MS1B108A	108	4	58	60	10	10	3/8 GF	3/8 GF DN15	0,25	19	16	
MS1B108B			78	80								
MS1B108C			116	120								
MS1C138A	138	6	58	155	7	7	3/4 GF	3/4 GF	0,37	23	18	590x400x550
MS1C138B			78	220								
MS1C138C			116	310								
MS1C165A	165	6	58	230	5	5	1"GF	1"GF	0,37	27	21	
MS1C165B			78	330								
MS1C165C			116	530 / 500								

DIMENSIONAL DRAWINGS



DIAPHRAGM DIAMETER [mm]	A [mm]		B [mm]		C [mm]		T [mm]	
	PVC	SS316L	PVC	SS316L	PVC	SS316L	PVC	SS316L
64	208	150	149	144	1/4 GF		98	
94	236	172	144	146	3/8 GF		117	120
108	248	212					131	140
138	347	258	158	157	3/4 GF		160	170
165	377	296	160		1"GF		193	190

	STANDARD		
	21	51	31
PUMP HEAD	SS316L	PP	PVC
DIAPHRAGM	PTFE		
SEAL	FPM		
VALVES	Ceramic		
VALVE SEATS	SS316L	PTFE	PTFE

OPTIONAL FEATURES

Every pump can be equipped with frequency-conversion motor or explosion-proof motor or electric actuator which accepts 4÷20mA signal.

M S1 A 064 B 31 A4 080

PUMP IDENTIFICATION

- OPTIONAL
- MOTOR
- PUMP HEAD MATERIALS
- STROKES
- DIAPHRAGM DIAMETER
- STROKE LENGTH
- MECHANISM TYPE
- MODEL

MSA Series

Mechanical Diaphragm Metering pumps

Dosy Series is a mechanical diaphragm metering pump with spring return and PPS housing.

FEATURES

■ FLOW RATE	from 10 to 90 L/h
■ MAX PRESSURE	5 bar
■ STROKE RATE	30 – 50 – 100 – 150 -166 strokes/minute
■ DIAPHRAGM DIAMETER	70 mm
■ STROKE LENGTH	4 mm



TECHNICAL FEATURES

MODEL	DIAPHRAGM DIAMETER [mm]	STROKES RATE [Strokes/min]	FLOW RATE [L/h]	MAX PRESSURE [bar]		CONNECTIONS		MOTOR [kW]	WEIGHT [Kg]		WOODEN BOX SIZE (LxWxH) (mm)
				SS316L	PVC	SS316L	PVC		SS316L	PVC	
MSAF070P	70	30	10	5	5	1/2"gf	8x12 (Standard) DN15 (Option)	0,04	11	8	430x280x370
MSAF070O		50	20								
MSAF070N		100	40								
MSAF070M		150	60								
MSAF070R		166	90								

PUMP HEAD MATERIALS

SS316L, PVC PUMP HEAD

PTFE DIAPHRAGM

MAX DOSAGE TEMPERATURE

– SS316L pump head 90° C

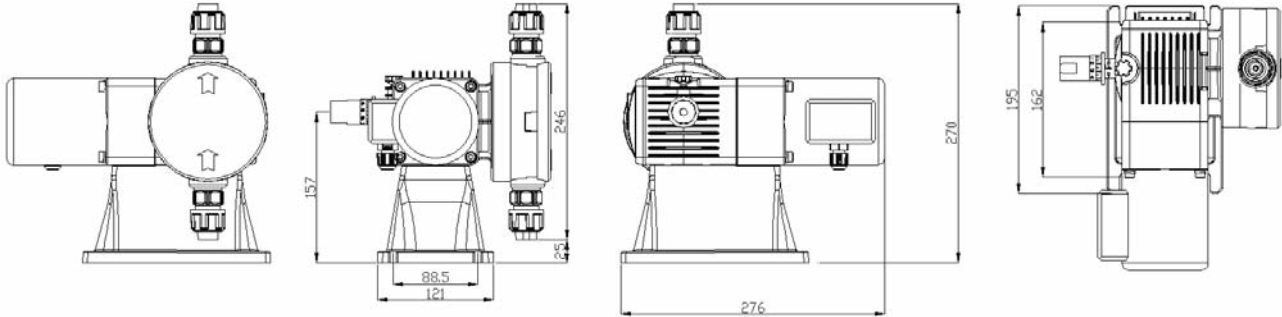
– PVC pump head 40° C

MOTOR CHARACTERISTICS

■ POWER SUPPLY	380V-50HZ-3 phase 220V-50HZ-single phase
■ PROTECTION CLASS	IP55; Insulation : F



DIMENSIONAL DRAWINGS



INSTALLATION KIT (for PVC pump head only)



Injection valve (PVC)
(G3/8", G1/2")



Foot valve (PVC)



Suction tube
(PVC, 2m, 8×12)

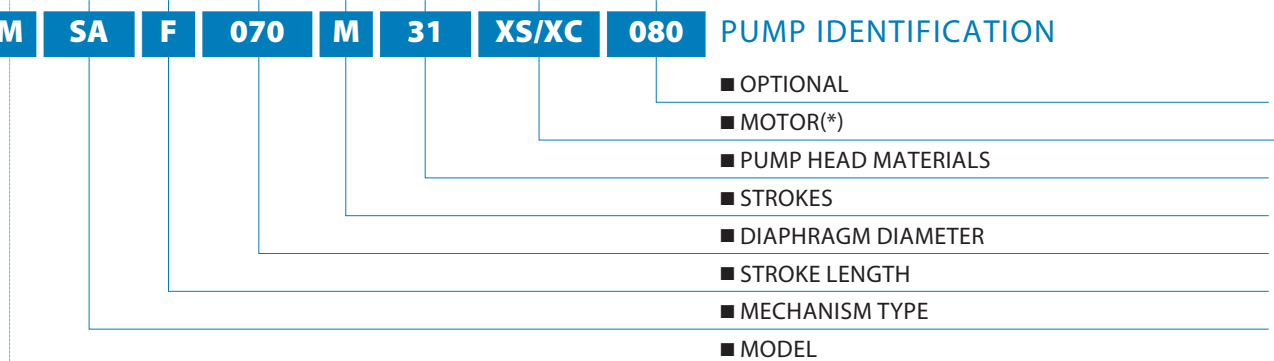


Delivery tube
(PE, 3m, 8×12)

	STANDARD		ON REQUEST	
	21	31	24	34
PUMP HEAD	SS316L	PVC	SS316L	PVC
DIAPHRAGM	PTFE			
SEAL	FPM	EPDM		
VALVES	SS316L	Ceramic	SS316L	Ceramic
VALVE SEATS	SS316L	PTFE	SS316L	PTFE

EPDM seal is also available upon request, EPDM seal is applicable to alkaline chemical, and FPM seal is applicable to acid chemical.

M SA F 070 M 31 XS/XC 080 PUMP IDENTIFICATION



(*) XS 380V-50HZ 3 PHASE – XC 220V-50HZ SINGLE PHASE

PS2 Series

Plunger Piston Metering pumps

PS2 pumps are plunger piston metering pumps featuring a spring return mechanism in an aluminium housing.

FEATURES

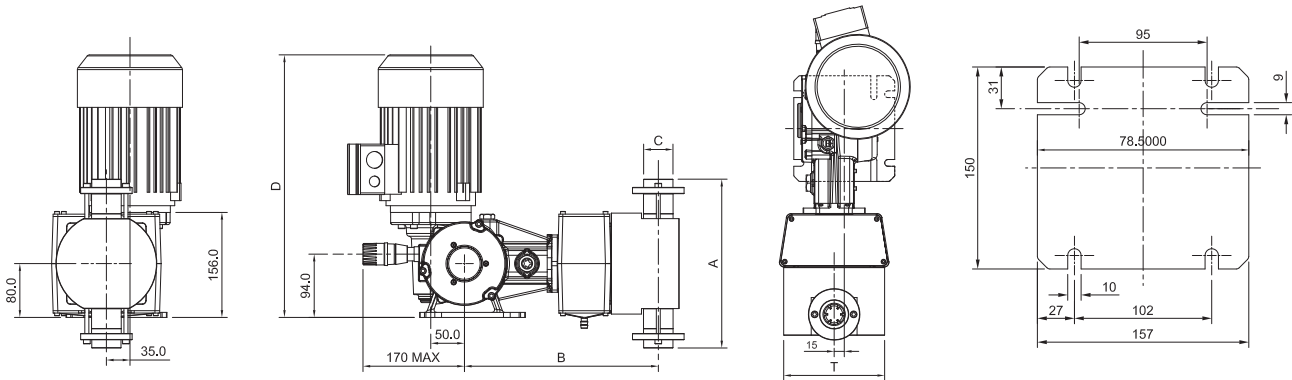
■ FLOW RATE	from 40 to 1000 L/h
■ MAX PRESSURE	20 bar
■ STROKE RATE	58 – 116 strokes/minute
■ PISTON DIAMETER	from 25 to 89 mm
■ MOTOR	standard 0,25 – 0,37 – 0,55 – 0,75 Kw (IP 55)
■ STROKE LENGTH	25 mm



TECHNICAL FEATURES

MODEL	PISTON DIAMETER [mm]	STROKES RATE [Strokes/min]	FLOW RATE [L/h]	MAX PRESSURE [bar]		CONNECTIONS		MOTORS [kW]	WEIGHT [Kg]		WOODEN BOX SIZE (LxWxH) (mm)						
				SS316L	PVC	SS316L	PVC		SS316L	PVC							
PS2E025A	25	58	40	20	10	3/8 GF	3/8 GF DN15	0,55	25	23	590x400x550						
PS2E025C		116	80														
PS2E030A	30	58	55														
PS2E030C		116	112														
PS2E038A	38	58	90														
PS2E038C		116	180														
PS2E048A	48	58	140														
PS2E048C		116	284														
PS2E054A	54	58	180			15	10	1/2 GF	1/2 GF	0,75		26	24				
PS2E054C		116	365														
PS2E064A	64	58	250			10	10							3/4 GF	3/4 GF	27	25
PS2E064C		116	505														
PS2E076A	76	58	365	7	7	1" GF	1" GF				34			27			
PS2E076C		116	730														
PS2E089A	89	58	495					5	5	38		28					
PS2E089C		116	1000														

DIMENSIONAL DRAWINGS



PISTON DIAMETER [mm]	A [mm]		B [mm]		C [mm]		T [mm]	
	SS316L	PVC	SS316L	PVC	SS316L	PVC	SS316L	PVC
25	120	147	258	258	3/8 GF	3/8 GF	68	80
30		168						
38	160	196	268	268	1/2 GF	1/2 GF	88	100
48		216						
54	173	216	273	273	3/4 GF	3/4 GF	108	120
64	202	222						
76	202	244	288	288	1" GF	1" GF	138	148
89	238	256						

	STANDARD	
	21	31
PUMP HEAD	SS316L	PVC
PISTON		Ceramic
PISTON SEAL	FPM	
VALVES	SS316L	Ceramic
VALVE SEATS		PTFE

PUMP HEAD MATERIALS

MAX DOSAGE TEMPERATURE

- SS316L pump head 90° C
- PVC pump head 40° C

FLOW RATE ADJUSTMENT

Every pump can be equipped with an electric actuator which accepts a 4÷20 mA.

P S2 E 064 C 31 E4 080

PUMP IDENTIFICATION

- OPTIONAL
- MOTOR
- PUMP HEAD MATERIALS
- STROKES
- PLUNGER DIAMETER
- STROKE LENGTH
- MECHANISM TYPE
- MODEL

PS1 Series

Plunger Piston Metering pumps

PS1 pumps are plunger piston metering pumps featuring a spring return mechanism in an aluminium housing.

FEATURES

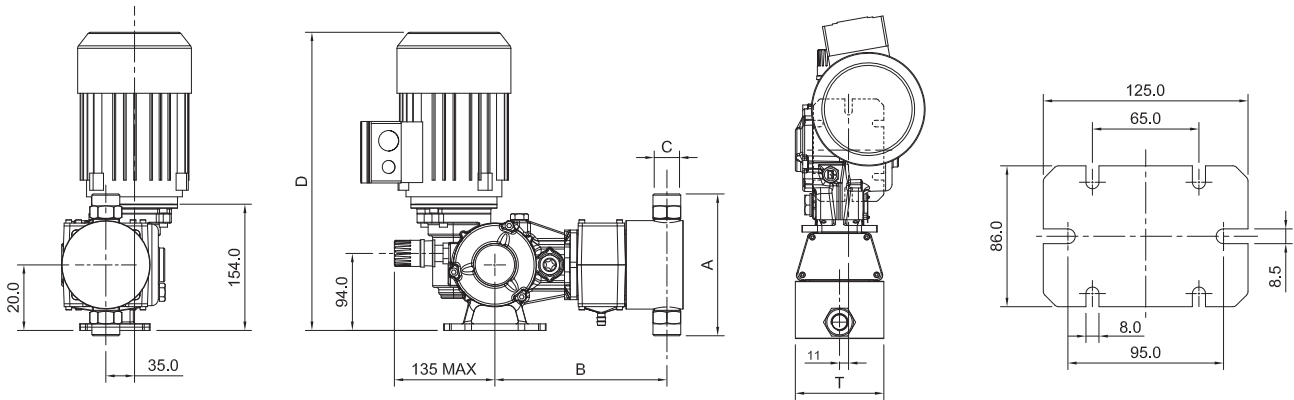
■ FLOW RATE	from 1,5 to 304 L/h
■ MAX PRESSURE	20 bar
■ STROKE RATE	58 – 116 strokes/minute
■ PISTON DIAMETER	from 6 to 64 mm
■ MOTOR	standard 0,18 and 0,25 Kw (IP 55)
■ STROKE LENGTH	15 mm



TECHNICAL FEATURES

MODEL	PISTON DIAMETER [mm]	STROKES RATE [Strokes/min]	FLOW RATE [L/h]	MAX PRESSURE [bar]		CONNECTIONS		MOTORS [kW]	WEIGHT [Kg]		WOODEN BOX SIZE (LxWxH) (mm)																
				SS316L	PVC	SS316L	PVC		SS316L	PVC																	
PS1D006A	6	58	1,5	20	10	1/4 GF	1/4 GF DN15	0,18	14	12	430x280x530																
PS1D006C		116	3						14	12																	
PS1D011A	11	58	5						3/8 GF	3/8 GF DN15		0,18	14	13													
PS1D011C		116	10												17	14											
PS1D017A	17	58	11														3/8 GF	3/8 GF DN15	0,18	14	13						
PS1D017C		116	22																			17	14				
PS1D025A	25	58	25			3/8 GF	3/8 GF DN15	0,18																14	13		
PS1D025C		116	50																							17	14
PS1D030A	30	58	35						3/8 GF	3/8 GF DN15		0,18	14	13													
PS1D030C		116	70												17	14											
PS1D038A	38	58	55														17	10	3/8 GF	3/8 GF DN15	0,18						
PS1D038C		116	110														17	14									
PS1D048A	48	58	85	10	10	1/2 GF	1/2 GF	0,25			19											17					
PS1D048C		116	170	10	10																						
PS1D054A	54	58	110						8	8		1/2 GF	1/2 GF	0,25									19	17			
PS1D054C		116	220						8	8																	
PS1D064A	64	58	152												6	4			3/4 GF	3/4 GF	0,25				21	19	
PS1D064C		116	304												6	4											

DIMENSIONAL DRAWINGS



PISTON DIAMETER [mm]	A [mm]		B [mm]		C [mm]		T [mm]	
	SS316L	PVC	SS316L	PVC	SS316L	PVC	SS316L	PVC
6	120	157	210	216	1/4 GF		68	80
11					147	215		
17		168	227	235				
25					196	229		
30	160	216	238	250			88	100
38	172	222	238	250	108	120		
48	202	222	238	250	108	120		
54	202	222	238	250	108	120		
64	202	222	238	250	108	120		

	STANDARD	
	21	31
PUMP HEAD	SS316L	PVC
PISTON	SS316L	Ceramic
PISTON SEAL	FPM	
VALVES	SS316L	Ceramic
VALVE SEATS	SS316L	PTFE

PUMP HEAD MATERIALS

MAX DOSAGE TEMPERATURE

- SS316L pump head 90° C
- PVC pump head 40° C

FLOW RATE ADJUSTMENT

Every pump can be equipped with an electric actuator which accepts a 4÷20 mA.

P S1 D 064 C 31 B4 080

PUMP IDENTIFICATION

- OPTIONAL
- MOTOR
- PUMP HEAD MATERIALS
- STROKES
- PLUNGER DIAMETER
- STROKE LENGTH
- MECHANISM TYPE
- MODEL

Duotek

Air operated double diaphragm pumps.

The draft of the SEKO's new double diaphragm pumps, it is mainly developed around the air distribution system, the diaphragm's high technology, the pumping chambers geometry and the valves system; this in order to extend the functionality, not only for transfer but also for dosing. The result is an innovative product with next-generation solutions.

MAIN FEATURES

- . construction's materials: PP,PVDF, AISI 316, ALUMINIUM
- . Self-priming up to 6m
- . Unlimited dry running
- . Anti-stall pneumatic circuit , easy to maintain
- . possibility to adjust: flow-rate, head and speed
- . various installations and configurations
- . ATEX certifications for Zone 1 and 2 in all versions
- . air-discharge's cover with connections for various uses

- a DELIVERY MANIFOLD
- b SUCTION MANIFOLD
- c ASTABLE AIR EXCHANGER
- d PUMPING CHAMBER
- e DIAPHRAGMS
- f BALL VALVE

ASTABLE SYSTEM INTERNAL PNEUMATIC EXCHANGER AF18 - AF50



ASTABLE SYSTEM EXTERNAL PNEUMATIC EXCHANGER AF65 - AF100 - AF160 - AF250 - AF500 - AF700



INSTALLATION

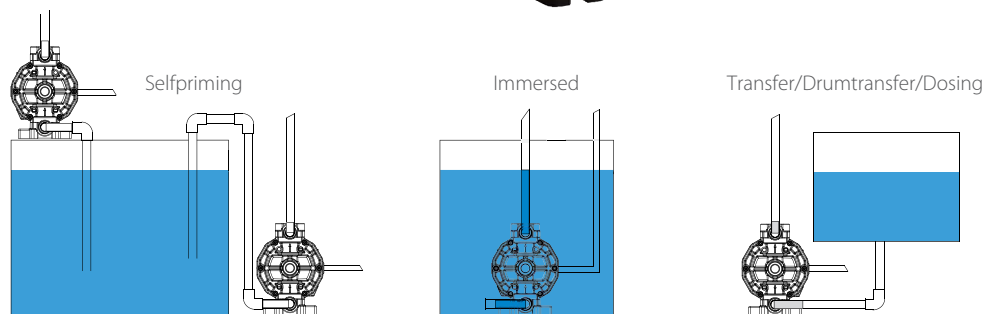
the maximum viscosity are:

drum transfer = max. viscosity
10.000 cps at 20° C

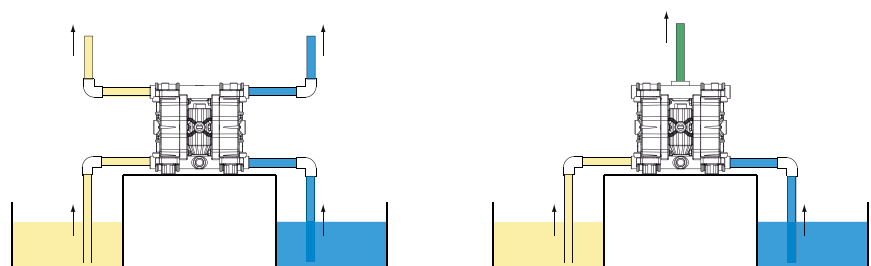
self-priming = max. viscosity
10.000 cps at 20° C

under uid level = max.
viscosity 50.000 cps at 20° C

immersed = max. viscosity
50.000 cps at 20° C



ON REQUEST: POSSIBILITY TO DOUBLE THE MANIFOLDS IN SUCTION AND IN DELIVERY



PUMPS COMPOSITION

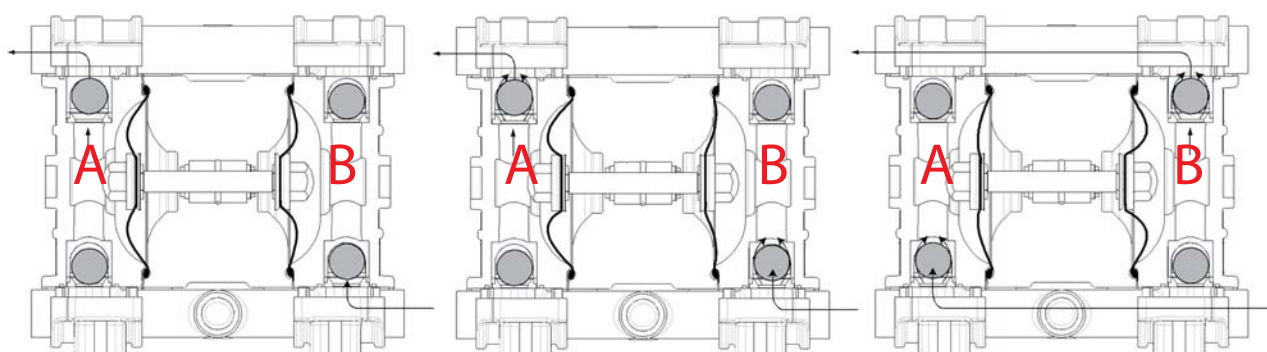
PUMP MODEL	TYPE ATEX 	SERIES	PUMP BODY	AIR DIAPHRAGM	FLUID DIAPHRAGM	BALLS	BALL SEATS	O-RINGS	CONNECTIONS
AF	X0 - ATEX ZONE 1	0018	P - POLYPROPYLENE	H - HYTREL	T - PTFE	T - PTFE	P - POLIPROPILENE	D - EPDM	1 - BSP THREADED
	00 - ATEX ZONE 2	0050	POLYPROPYLENE +CF WITH ATEX ZONE 1	M - SANTOPRENE		S - SS AISI 316	K - PVDF	V - FPM	2 - FLANGED
		0065		D - EPDM		D - EPDM	S - SS AISI 316	T - PTFE	3 - CLAMP
		0100	A - ALUMINIUM	N - NBR		N - NBR	A - ALUMINIUM	N - NBR	4 - TWIN CONNECTION
		0160	S - SS316L				Z - PE-UHMW		5 - NPT THREADED
		0250	M - POM						
		0500	POM+CF WITH ATEX ZONE 1						
		0700	K - PVDF						
		1000	PVDF+CF WITH ATEX ZONE 1						

OPERATING PRINCIPLE

The pneumatic distribution system sends compressed air behind one of the two diaphragms (A), which pushes the fluid towards the delivery circuit.

Simultaneously, the opposing diaphragm (B) is located, creating a vacuum in the chamber B, in the suction phase, moved from the shaft that connect the diaphragm to the other (A). In this way the product is sucked from the intake manifold, thanks to depression created in the fluid chamber.

When the diaphragm (A), under pressure, reaches the limit of the stroke the distributor switches the two inputs, and the cycle starts again. At the same time, the balls open and close, alternating the chamber A and B, in the closed situation for suction and open delivery in the situation.



Duotek - zone 2 ⚠ II 3/3 GD c IIB T135°C
 Duotek Atex - zone 1 ⚠ II 2/2 GD c IIB T135°C

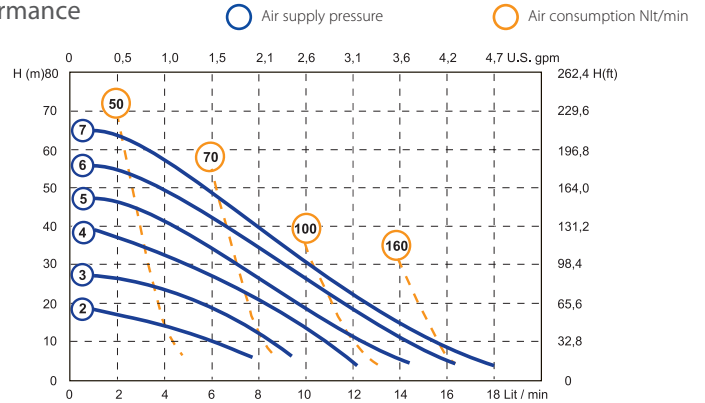


PP

Technical data

Connections	3/8" BSP	Air connection	6 mm
Max flow rate	18 l/min	Max self priming capacity	6 m
Max head	70 m	Diameter of passing solids	2,5 mm
Max pressure	7 bar		

Performance



* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.

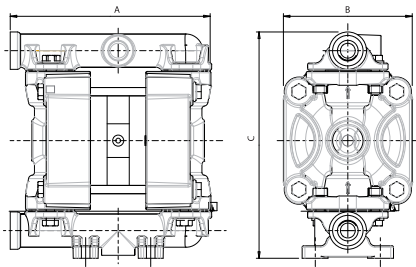


PVDF+CF

POMc

AISI 316

Dimensions



	PP	PVDF	POMc	AISI 316
A (mm)	145	145	145	145
B (mm)	95	95	95	95
C (mm)	160	160	160	160
Weight (kg)	2	2,5	2	3
MAX Temperature	65°	95°	95°	95°

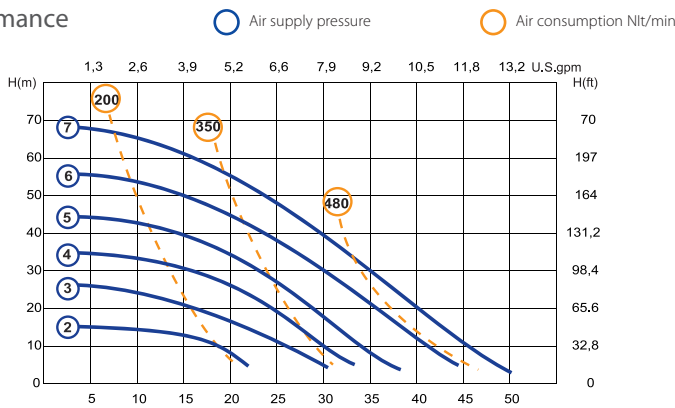
AF**0050

Duotek - zone 2 ⚠ II 3/3 GD c IIB T135°C
 Duotek Atex - zone 1 ⚠ II 2/2 GD c IIB T135°C

Technical data

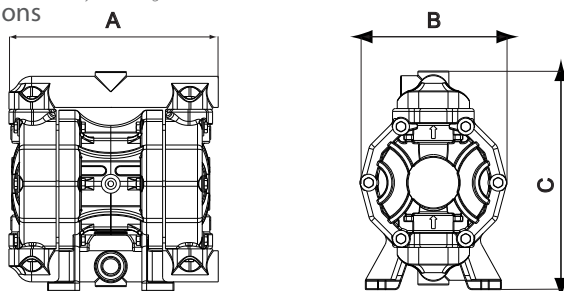
Connections	1/2" BSP	Air connection	1/4" BSP
Max flow rate	50 l/min	Max self priming capacity	6 m
Max head	70 m	Diameter of passing solids	3 mm
Max pressure	7 bar		

Performance



* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.

Dimensions



PP



PVDF+CF

Alu

AISI 316

	PP	PVDF	Alu	AISI 316
A (mm)	222	222	225	225
B (mm)	156	156	156	156
C (mm)	233	233	230	230
Weight (kg)	4	4,5	5	6
MAX Temperature	65°	95°	95°	95°

ISO-ANSI flanged connections on request

AF**0065

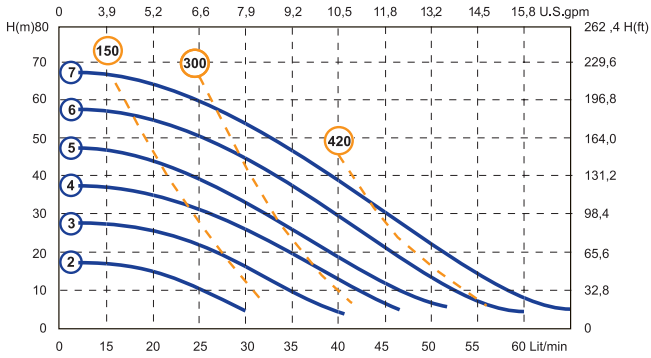
Duotek - zone 2  II 3/3 GD c IIB T135°C
 Duotek Atex - zone 1  II 2/2 GD c IIB T135°C

Technical data

Connections 1/2" BSP Air connection 1/2" BSP
 Max flow rate 65 l/min Max self priming capacity 6 m
 Max head 70 m Diameter of passing solids 3,5 mm
 Max pressure 7 bar

Performance

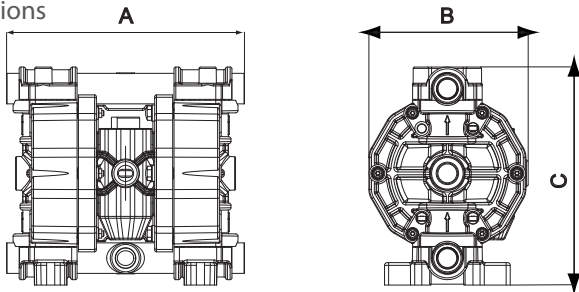
 Air supply pressure  Air consumption Nlt/min



* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.





Dimensions



	PP	PVDF	Alu	AISI 316
A (mm)	265	265	265	250
B (mm)	175	175	175	175
C (mm)	245	245	245	250
Weight (kg)	6,5	7	7	9
MAX Temperature	65°	95°	95°	95°

ISO-ANSI flanged connections on request

AF**0100

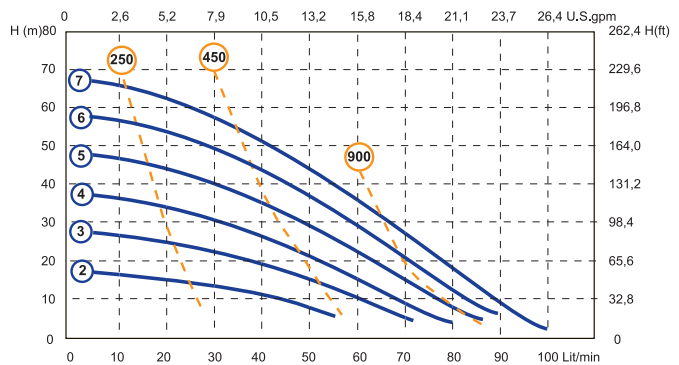
Duotek - zone 2  II 3/3 GD c IIB T135°C
 Duotek Atex - zone 1  II 2/2 GD c IIB T135°C

Technical data

Connections 3/4" BSP Air connection 1/2" BSP
 Max flow rate 100 l/min Max self priming capacity 6 m
 Max head 70 m Diameter of passing solids 3,5 mm
 Max pressure 7 bar

Performance

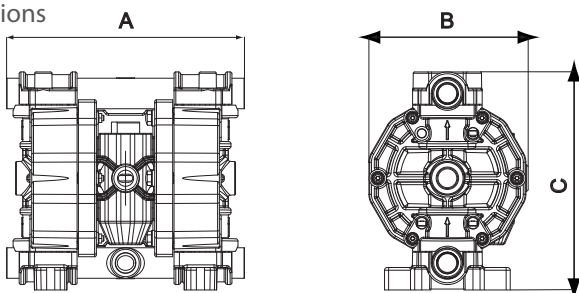
 Air supply pressure  Air consumption Nlt/min



* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.



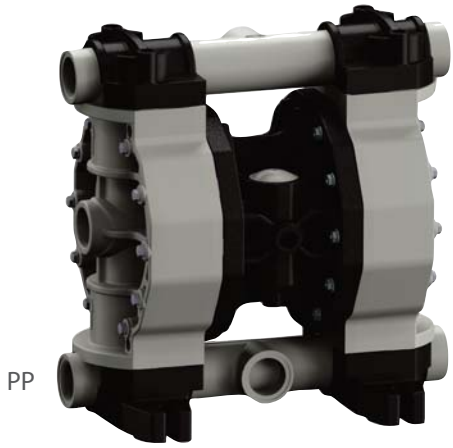
Dimensions



	PP	PVDF	Alu	AISI 316
A (mm)	265	265	265	250
B (mm)	175	175	175	175
C (mm)	245	245	245	250
Weight (kg)	6,5	7	7	9
MAX Temperature	65°	95°	95°	95°

ISO-ANSI flanged connections on request

Duotek - zone 2 ⚠ II 3/3 GD c IIB T135°C
 Duotek Atex - zone 1 ⚠ II 2/2 GD c IIB T135°C



PP



PVDF+CF



Alu

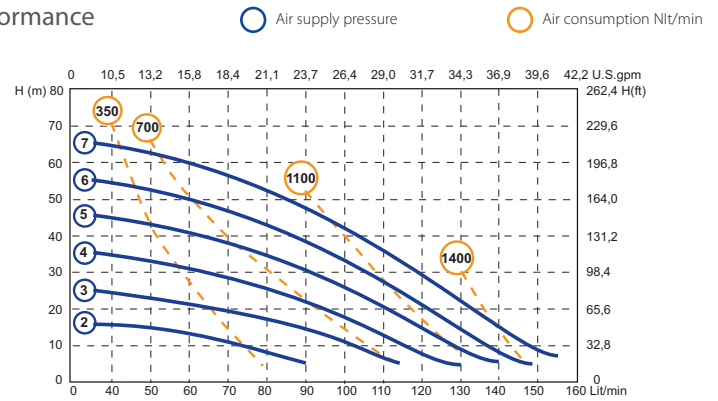


AISI 316

Technical data

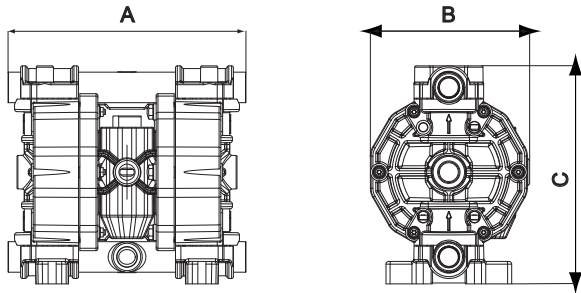
Connections	1" BSP	Air connection	1/2" BSP
Max flow rate	160 l/min	Max self priming capacity	6 m
Max head	70 m	Diameter of passing solids	7,5 mm
Max pressure	7 bar		

Performance



* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.

Dimensions



	PP	PVDF	Alu	AISI 316
A (mm)	370	370	370	360
B (mm)	220	220	220	220
C (mm)	364	364	364	365
Weight (kg)	15	16	16	20
MAX Temperature	65°	95°	95°	95°

ISO-ANSI flanged connections on request

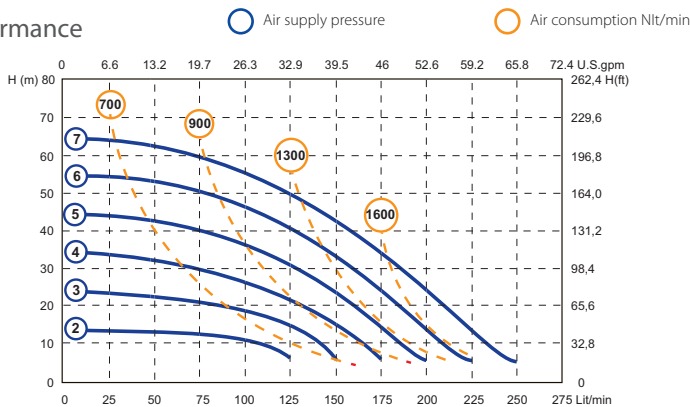
AF**0250

Duotek - zone 2 ⚠ II 3/3 GD c IIB T135°C
 Duotek Atex - zone 1 ⚠ II 2/2 GD c IIB T135°C

Technical data

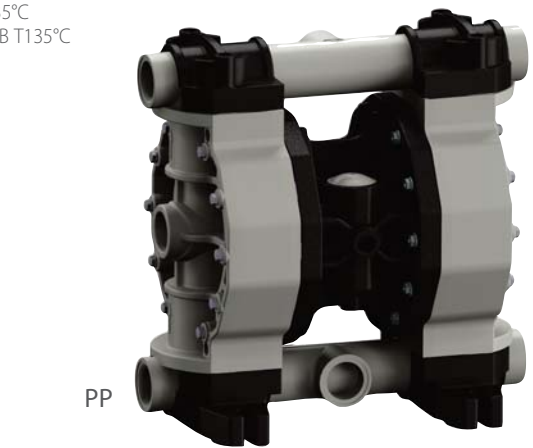
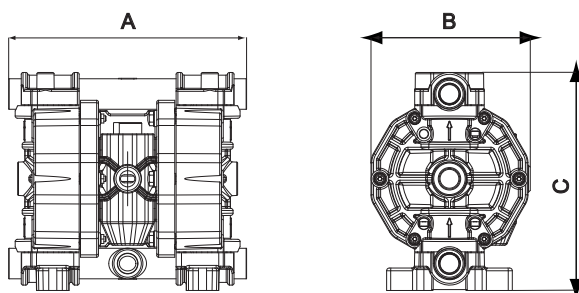
Connections	1 1/4" BSP	Air connection	1/2" BSP
Max flow rate	250 l/min	Max self priming capacity	6 m
Max head	70 m	Diameter of passing solids	7,5 mm
Max pressure	7 bar		

Performance



* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.

Dimensions



PP



PVDF+CF



Alu



AISI 316

	PP	PVDF	Alu	AISI 316
A (mm)	370	370	370	360
B (mm)	220	220	220	220
C (mm)	364	364	364	365
Weight (kg)	15	16	16	20
MAX Temperature	65°	95°	95°	95°

ISO-ANSI flanged connections on request

AF**0400

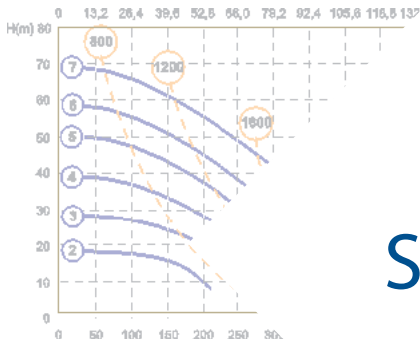
Duotek - zone 2 II 3/3 GD c IIB T135°C
 Duotek Atex - zone 1 II 2/2 GD c IIB T135°C

Technical data

Connections DN40 (1 1/2" BSP)* Air connection
 Max flow rate 400 l/min Max self priming capacity
 Max head 70 m Diameter of passing solid[†]
 Max pressure 7 bar

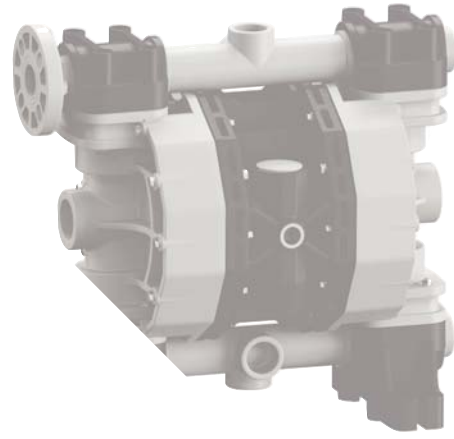
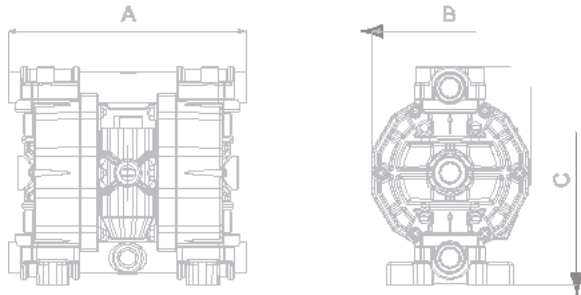
Performance

○ Air supply pressure



* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.

Dimensions



AISI 316

READY IN SEPTEMBER 2014

	PP	PVDF	Alu	AISI 316
A (mm)	265	265	265	250
B (mm)	175	175	175	175
C (mm)	245	245	245	250
Weight (kg)	6,5	7	7	9
MAX Temperature	65°	95°	95°	95°

ISO-ANSI flanged connections on request

Duotek - zone 2 II 3/3 GD c IIB T135°C
 Duotek Atex - zone 1 II 2/2 GD c IIB T135°C

AF**0500

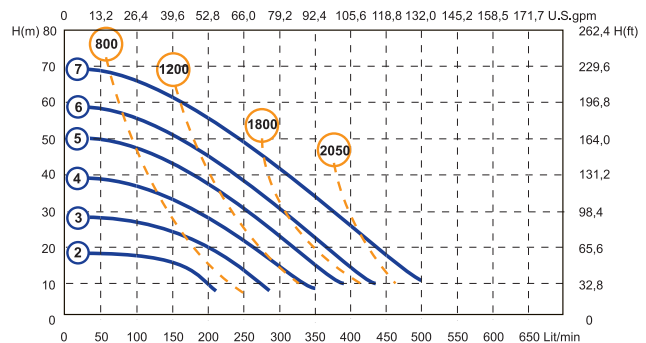
Technical data

Connections DN40 (1 1/2" BSP)* Air connection 3/4" BSP
 Max flow rate 500 l/min Max self priming capacity 6 m
 Max head 70 m Diameter of passing solids 8,5 mm
 Max pressure 7 bar

Performance

○ Air supply pressure

○ Air consumption Nlt/min



* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.

	PP	PVDF	Alu	AISI 316
A (mm)	595	595	595	582
B (mm)	340	340	340	345
C (mm)	565	565	245	570
Weight (kg)	30	30	35	58
MAX Temperature	65°	95°	95°	95°

(*) Threaded connections on request



PP



PVDF+CF

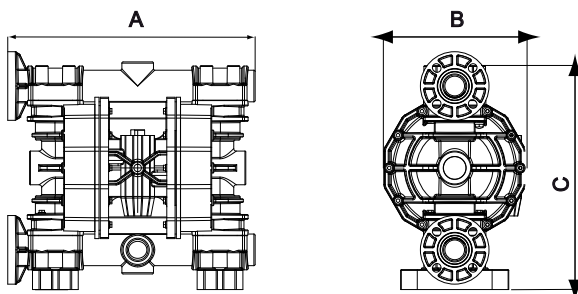


Alu






AISI 316

Dimensions



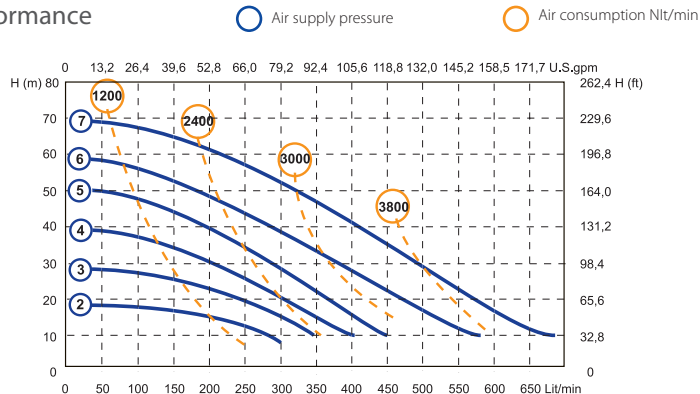
AF**0700

 Duotek - zone 2  II 3/3 GD c IIB T135°C
 Duotek Atex - zone 1  II 2/2 GD c IIB T135°C

Technical data

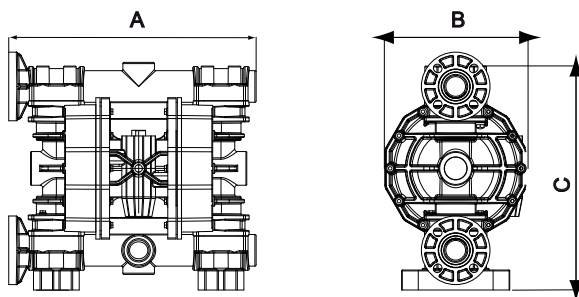
Connections	DN50 (2" BSP)*	Air connection	3/4" BSP
Max flow rate	680 l/min	Max self priming capacity	6 m
Max head	70 m	Diameter of passing solids	8,5 mm
Max pressure	7 bar		

Performance



* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.




Dimensions



	PP	PVDF	Alu	AISI 316
A (mm)	595	595	595	582
B (mm)	340	340	340	345
C (mm)	572	572	572	570
Weight (kg)	31	36	36	60
MAX Temperature	65°	95°	95°	95°

(*) Threaded connections on request



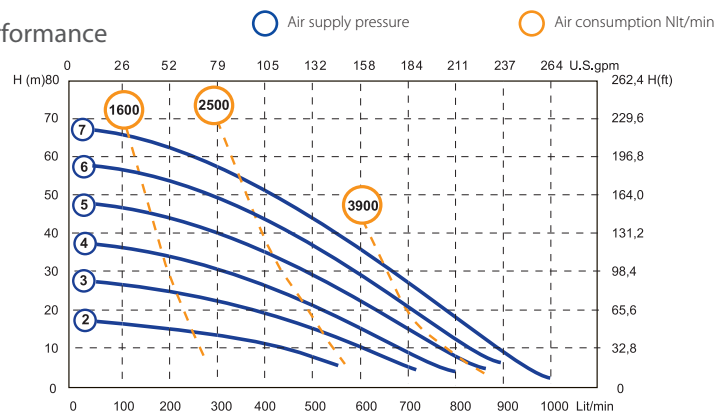
 Duotek - zone 2  II 3/3 GD c IIB T135°C
 Duotek Atex - zone 1  II 2/2 GD c IIB T135°C

AF**1000

Technical data

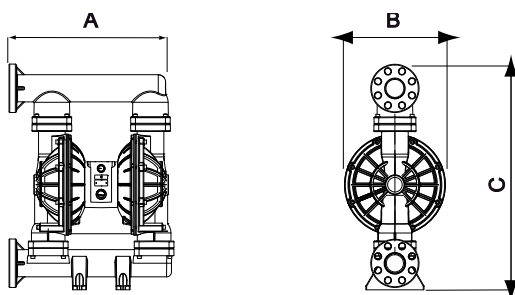
Connections	DN80 (3" BSP)*	Air connection	3/4" BSP
Max flow rate	1000 l/min	Max self priming capacity	6 m
Max head	70 m	Diameter of passing solids	10 mm
Max pressure	7 bar		

Performance



* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.

Dimensions



	PP	Alu	AISI 316
A (mm)	595	595	582
B (mm)	340	340	345
C (mm)	572	572	570
Weight (kg)	31	36	60
MAX Temperature	65°	95°	95°

Duotek Food & Sani Duotek

Double diaphragm pumps for food, pharmaceutical and cosmetics industry.



The air-operated double diaphragm pumps series FOOD Duotek, thanks to their structural characteristics, can be used to pump products used in food and cosmetics industry.

The air-operated double diaphragm pumps series Duotek FOOD, are made with FDA certified construction materials.

The parts in contact with the fluid, in fact, are exclusively electro-polished AISI 316 and PTFE, both certified for food use.

These pumps are able to handling fluids with very high viscosity and temperature up to 95° C.

MAIN FEATURES

- . Construction's materials: Electro-polished AISI 316, medium roughness is 2,7µm.
- . Self-priming up to 6m
- . Unlimited dry running
- . Anti-stall pneumatic circuit , easy to maintain
- . Possibility to adjust: flow-rate, head and speed
- . Various installations and configurations
- . ATEX certifications for Zone 1 and 2 in all versions
- . Air-discharge's cover with connections for various uses
- . Suction and delivery connection with CLAMP

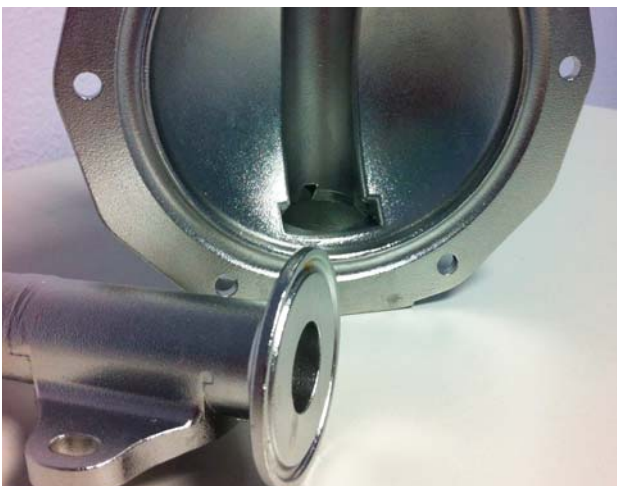
FDA
compliant

DUOTEK FOOD

Material: Stainless steel AISI 316 Electropolished.
Average roughness of 2.7 µm

SANI DUOTEK

Material: Stainless steel AISI 316 mechanically polished.
Roughness of 0,4 µm






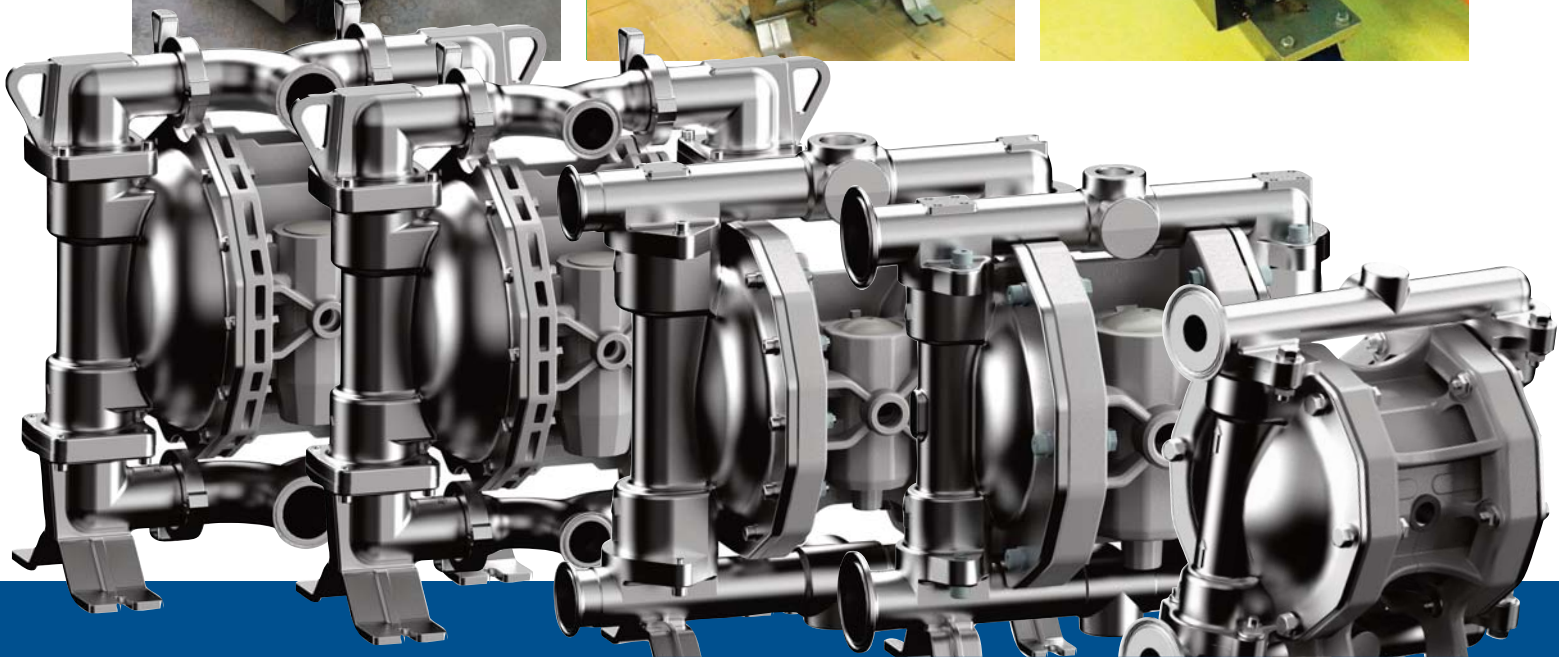
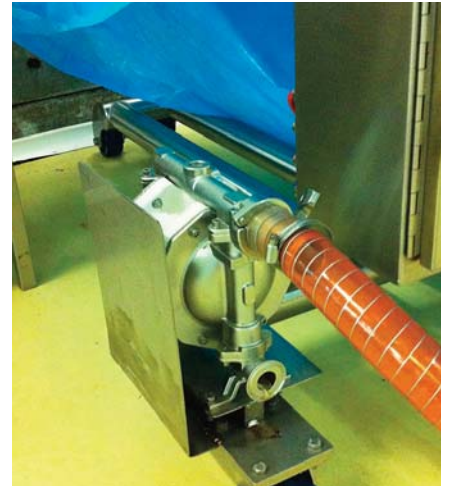
FDA

compliant

- a DELIVERY MANIFOLD
- b SUCTION MANIFOLD
- c ASTABLE AIR EXCHANGER
- d PUMPING CHAMBER
- e DIAPHRAGMS
- f BALL VALVE

PUMPS COMPOSITION

PUMP MODEL	TYPE ATEX 	SERIES	PUMP BODY	AIR DIAPHRAGM	FLUID DIAPHRAGM	BALLS	BALL SEATS	O-RINGS	CONNECTIONS
AF	XF - ATEX ZONE 1 / FDA COMPLIANT	0018	S - AISI 316	H - HYTREL	T - PTFE	T - PTFE	S - AISI 316 SS	T - PTFE	1 - BSP THREADED
		0050	PF: ELECTROPOLISHED						2 - FLANGED
	OF - ATEX ZONE 2 / FDA COMPLIANT	0100	SP: MECHANICALLY POLISHED						3 - CLAMP
		0160							
		0500							
OS - ATEX ZONE 2 / SANI FDA COMPLIANT	0700								
		1000							

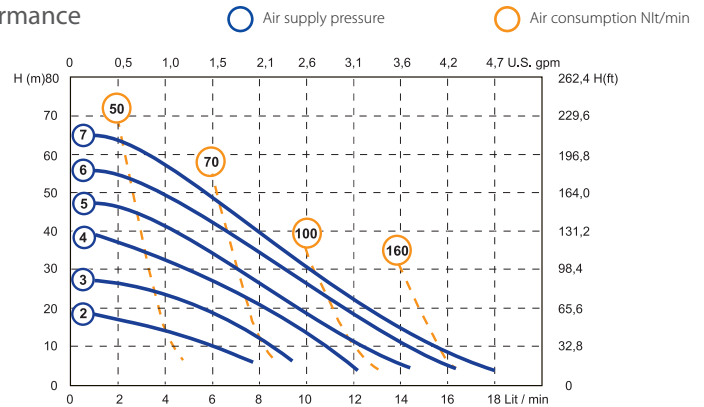




Technical data

Connections	CLAMP da 3/4"	Air connection	6 mm
Max flow rate	18 l/min	Max self priming capacity	6 m
Max head	70 m	Diameter of passing solids	2,5 mm
Max pressure	7 bar		

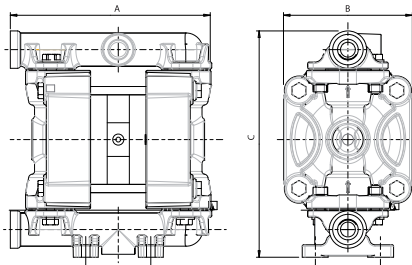
Performance



* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.

AISI 316 electropolished or mechanically polished

Dimensions



AISI 316	
A (mm)	145
B (mm)	95
C (mm)	160
Weight (kg)	2,5
MAX Temperature	95°

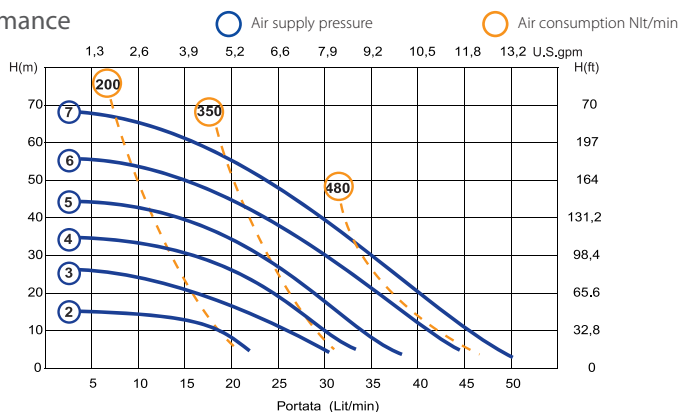
AF**0050

DF/SD - zone 2 II 3/3 GD c IIB T135°C
DF/SD Atex - zone 1 II 2/2 GD c IIB T135°C

Technical data

Connections	CLAMP da 1"	Air connection	1/4" BSP
Max flow rate	50 l/min	Max self priming capacity	6 m
Max head	70 m	Diameter of passing solids	3 mm
Max pressure	7 bar		

Performance

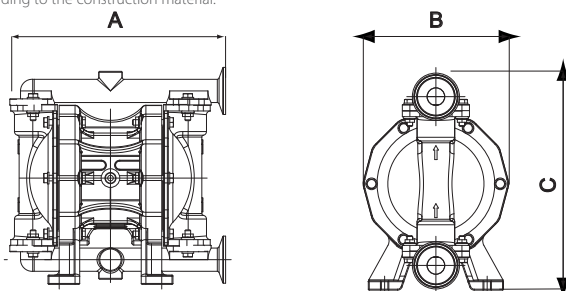


* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.



AISI 316 electropolished or mechanically polished

Dimensions



AISI 316	
A (mm)	225
B (mm)	156
C (mm)	230
Weight (kg)	6
MAX Temperature	95°

AF**0100

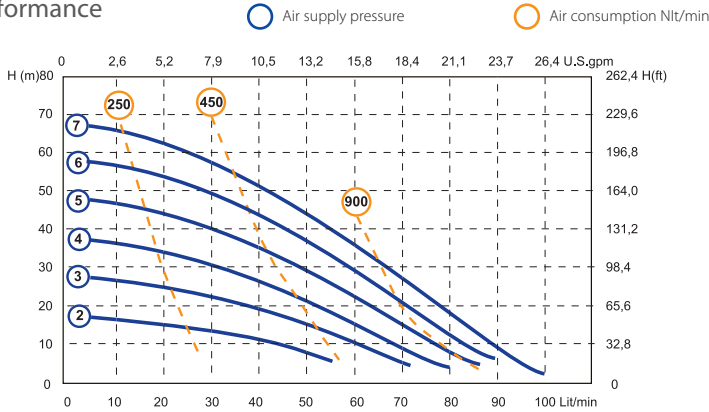
DF/SD - zone 2 II 3/3 GD c IIB T135°C
DF/SD ATEX - zone 1 II 2/2 GD c IIB T135°C



Technical data

Connections	CLAMP da 1"	Air connection	3/8" BSP
Max flow rate	100 l/min	Max self priming capacity	6 m
Max head	70 m	Diameter of passing solids	3,5 mm
Max pressure	7 bar		

Performance

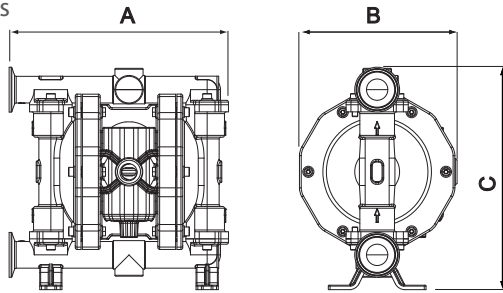


* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.



AISI 316 electropolished or mechanically polished

Dimensions



	AISI 316
A (mm)	250
B (mm)	175
C (mm)	250
Weight (kg)	9
MAX Temperature	95°



DF/SD - zone 2 II 3/3 GD c IIB T135°C
DF/SD ATEX - zone 1 II 2/2 GD c IIB T135°C

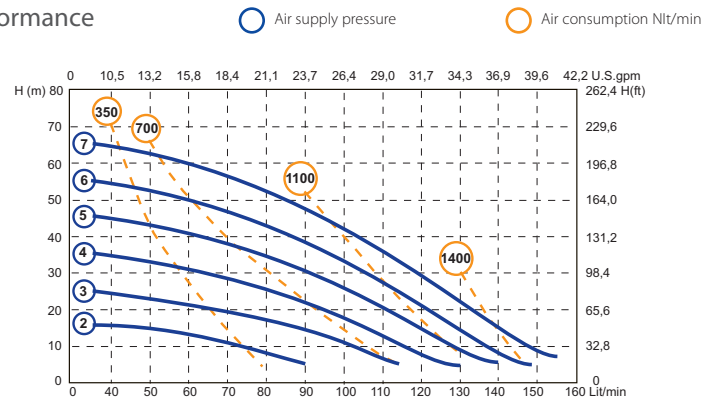
AF**0160



Technical data

Connections	CLAMP da 1 1/2"	Air connection	1/2" BSP
Max flow rate	160 l/min	Max self priming capacity	6 m
Max head	70 m	Diameter of passing solids	7,5 mm
Max pressure	7 bar		

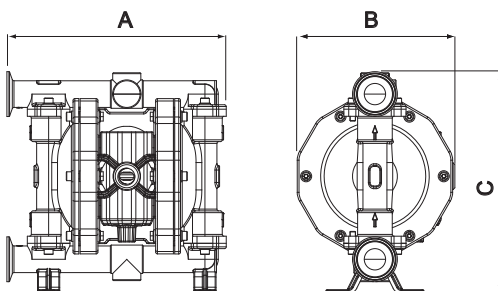
Performance



* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.

AISI 316 electropolished or mechanically polished

Dimensions

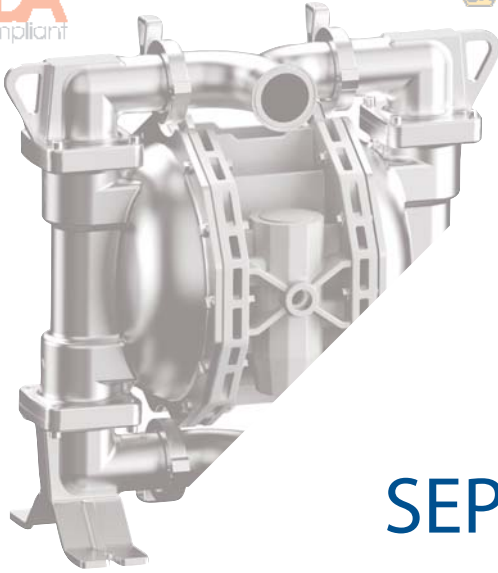


	AISI 316
A (mm)	360
B (mm)	220
C (mm)	365
Weight (kg)	20
MAX Temperature	95°

AF**0400

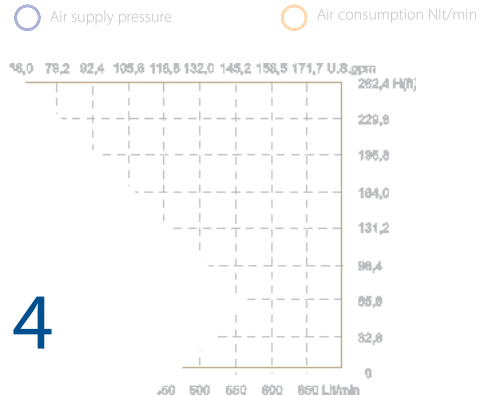


DF/SD - zone 2 II 3/3 GD c IIB T135°C
DF/SD Atex - zone 1 II 2/2 GD c IIB T135°C



Technical data

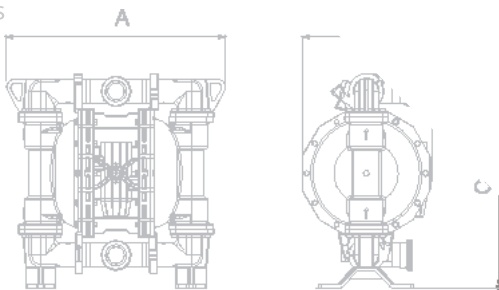
CLAMP da 2 1/2" Air connection 3/4" BSP
680 l/min Max self priming capacity 6 m
70 m Diameter of passing solids 8,5 mm
7 bar



READY IN SEPTEMBER 2014

AISI 316 electropolished or mec

Dimensions



	AISI 316
A (mm)	582
B (mm)	345
C (mm)	570
Weight (kg)	60
MAX Temperature	95°

AF**0500

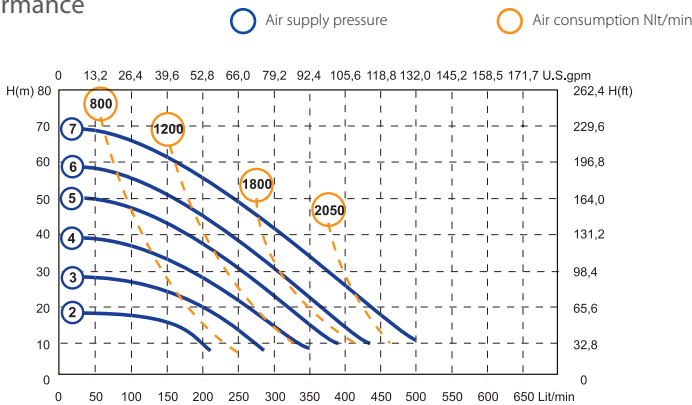
DF/SD - zone 2 II 3/3 GD c IIB T135°C
DF/SD Atex - zone 1 II 2/2 GD c IIB T135°C



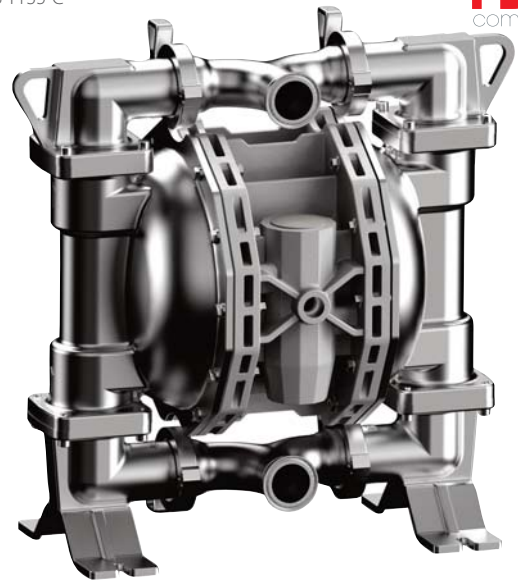
Technical data

Connections CLAMP da 2" Air connection 3/4" BSP
Max flow rate 500 l/min Max self priming capacity 6 m
Max head 70 m Diameter of passing solids 8,5 mm
Max pressure 7 bar

Performance

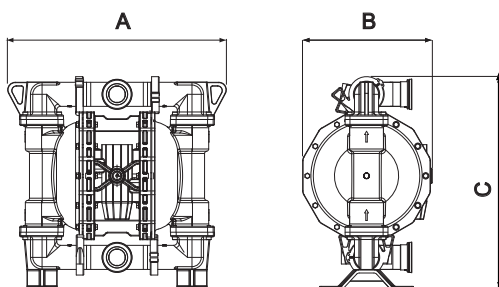


* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.



AISI 316 electropolished or mechanically polished

Dimensions



	AISI 316
A (mm)	582
B (mm)	345
C (mm)	570
Weight (kg)	58
MAX Temperature	95°



DF/SD - zone 2 II 3/3 GD c IIB T135°C
DF/SD Atex - zone 1 II 2/2 GD c IIB T135°C

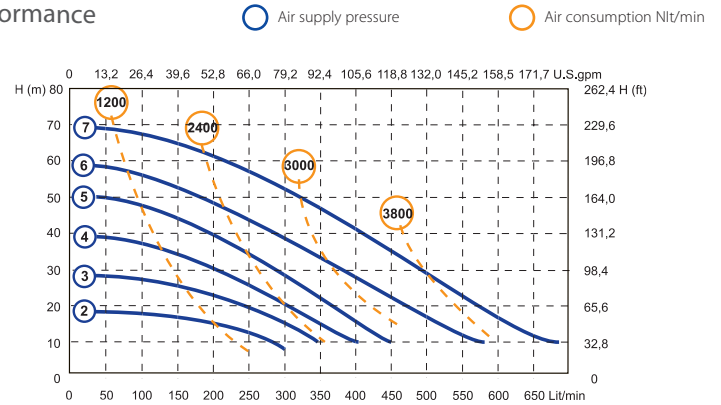
AF**0700



Technical data

Connections	CLAMP da 2 1/2"	Air connection	3/4" BSP
Max flow rate	680 l/min	Max self priming capacity	6 m
Max head	70 m	Diameter of passing solids	8,5 mm
Max pressure	7 bar		

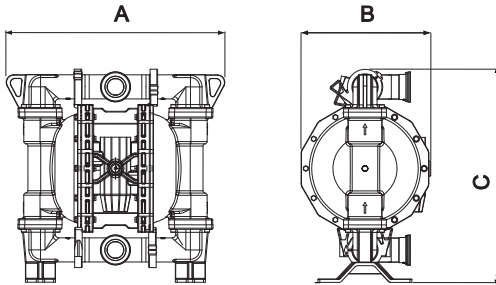
Performance



* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.

AISI 316 electropolished or mechanically polished

Dimensions



AISI 316	
A (mm)	582
B (mm)	345
C (mm)	570
Weight (kg)	60
MAX Temperature	95°

AF**1000

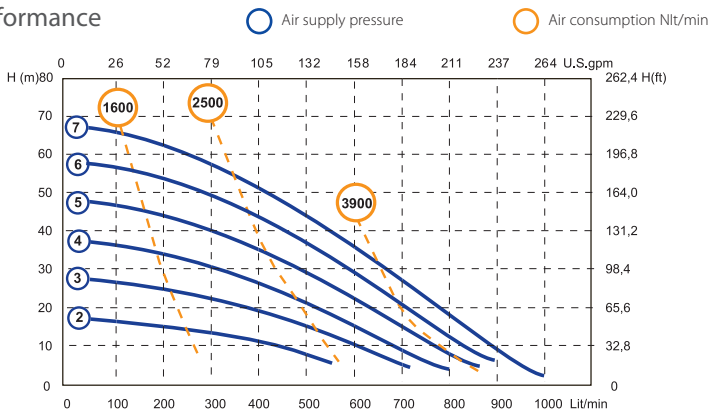
DF/SD - zone 2 II 3/3 GD c IIB T135°C
DF/SD Atex - zone 1 II 2/2 GD c IIB T135°C



Technical data

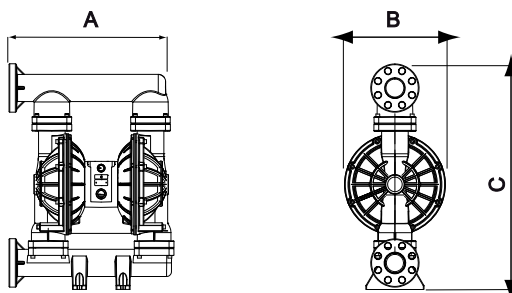
Connections	3" BSP	Air connection	3/4" BSP
Max flow rate	1000 l/min	Max self priming capacity	6 m
Max head	70 m	Diameter of passing solids	10 mm
Max pressure	7 bar		

Performance



* The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C, and vary according to the construction material.

Dimensions



AISI 316 electropolished or mechanically polished

AISI 316	
A (mm)	582
B (mm)	345
C (mm)	570
Weight (kg)	60
MAX Temperature	95°

(*) Clamp connections on request

Accessories



AIR REGULATION KIT



PRESSURE SWITCH CYCLE COUNTER



ELECTRICAL AND PNEUMATIC "START & STOP"



INOX TROLLEY



VALVES, FITTINGS AND CONNECTIONS IN PP, PVC, INOX



PP, PVDF, ALUMINIUM AND STAINLESS STEEL NOZZLE

HOSE IN PVC REINFORCED, HOSE WITH PTFE OR PE INTERNAL



ELECTRICAL AND PNEUMATIC CONTROL VALVES



FLANGE CONNECTION KIT



BASKET STRAINER FILTERS IN PP



ANTI VIBRATION FEET KIT



Damper

Pneumatic pulsation dampener

The new range of pneumatic pulsation dampener series DAMPER was developed with a new technology, which guarantees an optimal solution to minimize the pulsation effect of the flow.

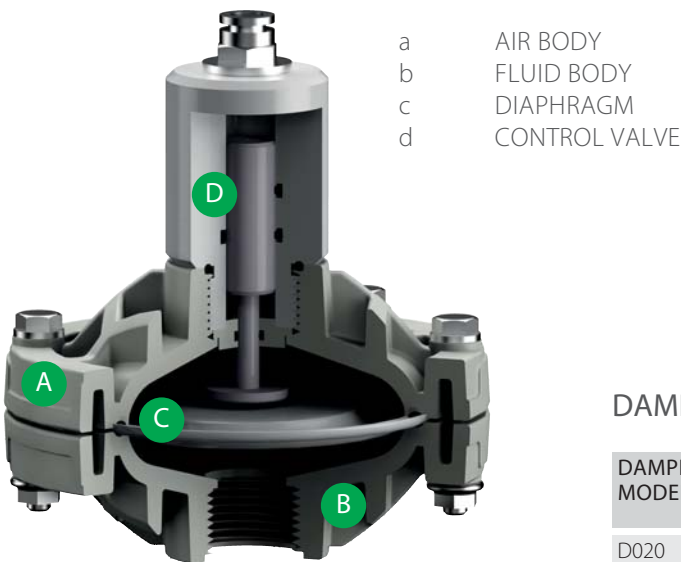
The high damping capacity can be up to 90%. The pulsation dampeners series DAMPER, not require adjustment or pre-loading, but it adapt to the fluid curve, automatically.

The DAMPERs, mounted on the delivery of double diaphragm pumps, drastically reduce the pulsation, the hammerings and the vibrations of the pump.



MAIN FEATURES

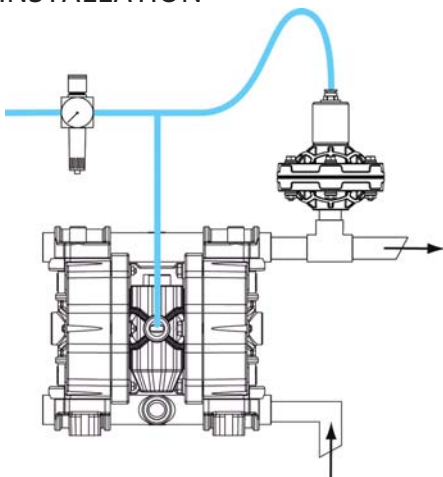
- Construction's materials: Polypropylene, PVDF, Aluminium, AISI 316
- Automatically, not need pre-loading
- Unlimited dry running
- Various installations and configurations
- ATEX certifications for Zone 1 and 2 in all versions
- Easy to maintain



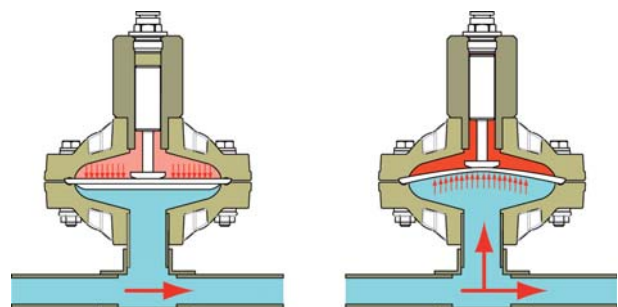
DAMPER COMPOSITION

DAMPER MODEL	DAMPER BODY	AIR DIAPHRAGM	FLUID DIAPHRAGM	ATEX ZONE 1
D020	P - POLYPROPYLENE	H - HYTREL	T - PTFE	X
D025	KC - PVDF+CF	M - SANTOPRENE		
D040	A - ALUMINUM			
D050	S - AISI 316 SS O - POM			

INSTALLATION






FUNCTION



PULSATING FLUID PASSES THROUGH THE DAMPENER WHICH DRIVES THE CONTROL VALVE, WHICH MOVES THE DIAPHRAGM ALIGNING THE FLOW OUT

DAMPER 20

 Damper - zone 2  II 3/3 GD c IIB T135°C
 Damper Atex - zone 1  II 2/2 GD c IIB T135°C

Pneumatic pulsation dampener for pumps: AF**0018 - AF**0050

Technical data Connections 3/4" ; Air connection 6 mm ; Max pressure 7 bar



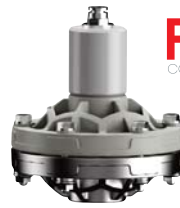
PVDF



POM c



AISI






AISI electropolished or mechanically polished

FDA
compliant



PP

DAMPER 25

 Damper - zone 2  II 3/3 GD c IIB T135°C
 Damper Atex - zone 1  II 2/2 GD c IIB T135°C

Pneumatic pulsation dampener for pumps: AF**0065 - AF**0100

Technical data Connections 1" ; Air connection 8 mm ; Max pressure 7 bar



PVDF



POM c



AISI





AISI electropolished or mechanically polished

FDA
compliant



PP

DAMPER 40

 Damper - zone 2  II 3/3 GD c IIB T135°C
 Damper Atex - zone 1  II 2/2 GD c IIB T135°C

Pneumatic pulsation dampener for pumps: AF**0160 - AF**0250

Technical data Connections 1 1/2" ; Air connection 10 mm ; Max pressure 7 bar



PVDF



POM c



AISI




AISI electropolished or mechanically polished

FDA
compliant



PP

DAMPER 50

 Damper - zone 2  II 3/3 GD c IIB T135°C
 Damper Atex - zone 1  II 2/2 GD c IIB T135°C

Pneumatic pulsation dampener for pumps: AF**0500 - AF**0700 - AF**1000

Technical data Connections 2" ; Air connection 10 mm ; Max pressure 7 bar



PVDF



Alu



AISI



AISI electropolished or mechanically polished

FDA
compliant



PP



Kontrol 800

Multi-parameter control instrument

The Kontrol 800 is a dedicated multi-parameter controller for complex applications that require a number of chemical parameters to be checked at the same time. The unit features independent proportional control output measures, two programmable frequency outputs, RS 485 serial port with MODBUS protocol, three relays outputs, probe quality checking and Data logging capability.

Parameters

- pH / ORP
- Conductivity
- Chlorine
- Chlorine Dioxide

Applications

- Waste Water
- Drinking Water
- Cooling Towers
- Boiler
- Legionella disinfection
- Reverse Osmosis
- Sludge
- Crate Wash
- Galvanic Process
- Dioxide Station
- CIP
- Irrigation
- Swimming Pool
- Fish Farming
- Sea water
- Dairy

Features

Graphic display and Keypad

Simultaneous value of the measure, Temperature and Relay status.

4-line, 20-character Alphanumeric Display.

Seven control keys for instrument calibration and configuration.

Enclosure Box and Power Supply

Wall mounting ABS plastic material IP65.

Universal Power Supply
100÷240 Vac 50/60 Hz

Manual controls

The user-friendly programming step menu makes starting up and checking the control and dosing system easy.

Data logging

Internal Flash memory to load record measures values.

Type: Circular (F.I.F.O.) or Filling.

RS485 Serial port

For set-up and real-time data acquisition from remote or for stored data download on PC or laptop (Communication software **Sekonet** required).

MODBUS RTU communication protocol.

Measure Input

High measuring resolution with probe quality control.

Modular measuring system.

Chlorine measure in sea water application.

Digital Input

Double channel, Voltage Input and Reed level input to disable all function controller output.

Current outputs

4÷20mA Galvanic isolation

Two (2) programmable Output Measure.

Frequency Outputs

1÷120 Pulse/Minutes open collector Isolation channel.

Two (2) programmable Output Measure.

Relay Outputs

Three (3) independent relays,
Three (3) set point measure with power contact.

One Alarm remote dry contact

One Set point Measure dry contact.

On/OFF, Timed, Proportional routine function setting.

Measure range

Code	Description
pH	0 ÷ 14,00 pH
ORP	± 200 mV
Conductivity	1 ÷ 200/10 ÷ 2000/100 ÷ 20.000 µS
Chlorine (Amperometric Cell)	0 ÷ 5,00 ppm (*)
Chlorine and Chlo. Dioxide (Potentiostatic Cell)	0 ÷ 0,50 / 1,00 / 2,00 / 5,00 / 10,0 / 20,0 / 200,0 ppm
Temperature	with PT100/PT1000 0 ÷ 100°C (32 ÷ 212 °F)

(*): Amperometric Chlorine CU+PT sensors

Product line Kontrol 800 Single parameter

Code	Model	Description
K800L01	Kontrol CL 800	for Amperometric Chlorine values
K800L06	Kontrol CL _p 800	for Free and Total Potentiostatic Chlorine values

Product line Kontrol 800 Double parameters

K800L02	Kontrol PR 800	for pH/ORP - pH/ORP values
K800L03	Kontrol PC 800	for pH/Amperometric Chlorine values
K800L04	Kontrol PRC 800	for pH/ORP - Amperometric Chlorine values
K800L05	Kontrol PR+EC 800	for pH/ORP - Conductivity values
K800L07	Kontrol PC _p 800	for pH + Potentiostatic Chlorine values
K800L08	Kontrol PRC _p 800	for pH /ORP + Potentiostatic Chlorine values
K800L09	Kontrol PRC _p +C _A 800	for pH/ORP + Pot. and Amperometric Chlorine values



Kontrol 500

Single parameter control instruments

The Kontrol 500-serie is an advanced controller designed for high-end applications. The units feature independent proportional PID-enabled control outputs, RS 485 serial port with MODBUS protocol, USB port on request, probe quality checking, a variety of outputs and full data logging capability. The user has full programming authority.

Kontrol 500

Parameters

- pH / ORP
- Conductivity
- Dissolved Oxygen
- Chlorine
- Chlorine Dioxide
- Hydrogen Peroxide
- Ozone
- Peracetic Acid
- Turbidity
- Suspended solids

Applications

- Waste Water
- Drinking Water
- Cooling Towers
- Boiler
- Legionella disinfection
- Reverse Osmosis
- Sludge
- Crate Wash
- Galvanic Process
- Dioxide Station
- CIP
- Irrigation
- Swimming Pool
- Fish Farming
- Sea water
- Dairy

Features

Graphic display and Keypad

128 by 64 pixel resolution monochrome display with graphic icons to show digital output status, Data logging, washing cycle, alarms. Simultaneous flashing values for the measurement (numeric + bargraph) and temperature readings. Analogue scrolling output values. Five control keys for instrument calibration and configuration.

Enclosure Box and Power Supply

Wall mounting ABS plastic material IP65 (144x144)
 Panel mounting IP54 (96x96)
 Universal Power Supply
 100÷240 Vac 50/60 Hz

Manual controls

The user-friendly programming step menu makes starting up and checking the control and dosing system easy.

Data logging

Internal Flash Memory with records interval from 1 to 99 min. (near to 16000 records)

Visualization key for stored data in tabular and graphic form.

Type: Circular (F.I.F.O.) or Filling.

RS485 Serial port

To set-up and to acquire/capture real time data or to download stored data on PC or laptop (Communication **Software Master Controller NET** required).

MODBUS RTU communication protocol

USB port

To download recorded data on removable memory Usb Pen Drive (upon request).

Measure Input

High measuring resolution with probe quality control.

Modular measuring system

Chlorine measure for sea water application.

Digital Input

Dedicated to disable all controller output functions.

Current outputs

4÷20mA Galvanic isolation

Two independent programmable Output Measures with PID routine regulation.

Relay Outputs

Four independent relays, two set points, one alarm remote output, on backwashing probe output.

On/OFF, Timed routine function setting.

Measure range

Code	Description
pH	0 ÷ 14,00 pH
ORP	± 1500 mV
Conductivity	0 ÷ 20 /200 /2.000 /20.000 /200.000 µS
Inductive Conductivity	0 ÷ 10.000 /10.000 /100.000 /999.999 µS
Dissolved Oxygen	0 ÷ 20,0 ppm or mg/l - 0 ÷ 200% SAT
Chlorine and Chlo. Dioxide	0 ÷ 0,50/1,00 /2,00 /5,00 /10,0 /20,0 /200,0 ppm
Hydrogen Peroxide	0 ÷ 500 /1000 /2000 /10.000 /100.000 ppm
Ozone (O3)	0 ÷ 0,5 /2,00 /5,00 /10,00 ppm
Peracetic Acid	0 ÷ 500 /2000 /10.000 /20.000 ppm
Turbidity	0,00 ÷ 1,00 /10,0 /100 NTU/FTU
Suspended Solids Turbidity	0,0 ÷ 4,00 /40,0 /400 /4.000 NTU/FTU - 0 ÷ 30 gr/l
Temperature	with PT100/PT1000 0 ÷ 100°C (32 ÷ 212 °F)

Product line Kontrol 500 Single parameter

Code	Model	Description
K500PR	Kontrol PR 500	for pH or ORP values
K500CD	Kontrol CD 500	for Conductivity values
K500ID	Kontrol ID 500	for Inductive Conductivity values
K500OX	Kontrol OX 500	for Dissolved Oxygen values
K500CL	Kontrol CL 500	for Chlorine values
K500T1	Kontrol TB 500	for Turbidity values
K500T2	Kontrol TS 500	for Suspended Solid Turbidity values

The unit's Software enables the following measures:
H₂O₂ O₃ ClO₂ C₂H₄O₃



Kontrol 40

Single parameter control instruments

The Kontrol 40 are single parameter controllers. These very user-friendly systems combine advanced performance and simple design. Single-parameter units are available in four different casings, ensuring perfect fit at the right price.

Kontrol 40

Parameters

- pH / ORP
- Conductivity
- Chlorine
- Chlorine Dioxide
- Flow Rate

Applications

- Waste Water
- Drinking Water
- Cooling Towers
- Boiler
- Legionella disinfection
- Reverse Osmosis
- Crate Wash
- Galvanic Process
- Dioxide Station
- CIP
- Irrigation
- Swimming Pool
- Sea water

Features

Graphic display and Keypad

Simultaneous value of the measure, Temperature and Relay status. 2-line, 16 character Alphanumeric Display. Four control keys for instrument calibration and configuration.

Enclosure Box and Power Supply

Four (4) mechanical box:
Wall mounting PP (IP65)

Panel mounting:
96x96 IP65 Front panel
48x96 IP40
Din-Rail (6 modules) IP40

Universal Power Supply
100÷240 Vac 50/60 Hz and 24Vac/dc

Manual controls

The user-friendly programming step menu makes starting up and checking the control and dosing system easy.

Measure Input

High measuring resolution with probe quality control.

Modular measuring system

Chlorine measure in sea water application

Digital Input

Voltage Input to disable all function controller output.

Current outputs

4÷20mA Galvanic isolation

One(1) programmable measurement output.

Relay Outputs

Two (2) independent function, two Set point Measure, dry contact.

Software-set alarm functions.

Routine function settings : ON/OFF, Timed or proportional

Measure range

Code	Description
pH	0 ÷ 14,00 pH
ORP	± 1500 mV
Conductivity	1 ÷ 200/10 ÷ 2000/100 ÷ 20000/200 ÷ 50000 µS
Chlorine (Amperometric Cell)	0 ÷ 5,00 ppm
Chlorine and Chlo. Dioxide (Potentiostatic Cell)	0 ÷ 0,50 /1,00 /2,00 /5,00 /10,0 /20,0 /200,0 ppm
Temperature	with PT100 0 ÷ 100°C (32 ÷ 212 °F)
Flow Rate	99 999,99 Liters/second (*)

(*) Setting by software following unit measures: l/s, l/h, m³/h, GPM.

Product line Kontrol 40 Single parameter

Code	Model	Description
SPR040	Kontrol 40	for pH/ORP values
SCD040	Kontrol 40	for Conductivity value
SCL040	Kontrol 40	for Potentiostatic Chlorine value
SFX040	Kontrol 40	for Flow Rate value



Photometer System



Photometer Light

Photometer **System** Multi parameter photometer instrument

The Seko Photometer System is a DPD reference point for Chlorine control. The combination of water sampling and reagents ensure maximum measurement precision. The unit itself is a compact miniature analysis laboratory dedicated to Chlorine measurement.

Photometer System

Parameters

- pH / ORP
- Free and Total Chlorine
- Combined Chlorine by software

Applications

- Waste Water
- Drinking Water
- Boiler
- Legionella disinfection
- Crate Wash
- Dioxide Station
- Irrigation
- Swimming Pool
- Sea water

Features

The unit has the following innovative features:

- New hydraulic device with water drain dedicated to chemical reagents used for chlorine measure. Therefore it allows to reduce the water amount used for chlorine measure. The water dedicated to pH and Redox probes it may be to restored in the compensating basin, while only the water with chemical DPD reagent will be discharged in special tank to observes the local law.
- Fast installation thanks to quick coupling for Inlet and Outlet water.
- Optical unit assure a High accuracy Chlorine measure with a 520 nm sensor and LED light device.

Moreover:

- The Peristaltic pump with 4 mechanical support assure chemical reagent saving.
- Reagent level controlled by level probes.
- The chemical powder to dilute before the use is a good solution safety to keep it ready in every place.

Graphic display and Keypad

LCD STN 340x128 backlighted.

Visualisation of: measurements (simultaneous up to 4 values + trend line), digital outputs condition, storage condition, malfunctions.

Using keypad with 4 embossed keys.

Internal data logger

4 Mbit flash memory equal to 16000 records

Recording interval
00:00 to 99:99 min

Type: circular / fill

Display: table / graph
(1 for each parameter).

Analogue outputs

1 for each measured parameter
(excluding comb. chlorine)

Type: 0.00 / 4.00 to 20.00 mA
Galvanically isolated

Programming limit:
lower / upper / reverse

Maximum load: 500 Ohms - Alarm
output NAMUR compliant 2.4 mA (with
4÷20 mA range)

PID control function can be activated
on the pH output

Set point relay outputs

Two (2) for Primary measure + for pH
measurement (only mod. 4001-3)

Programming for Hysteresis, working
time and Daily hourly activation not
subject to the measured value:

- ON - OFF
- 00.00 to 05:00 ppm Cl 2
- 00:00 to 14.00 pH

Working time: 000 to 999 sec.

Relays 5A resistive
load up to 230 Vac

Alarm Relay Output

Two (2) for Primary measure
+ Two (2) for pH measurement
(only mod. 4001-3)

Programming for Hysteresis, working
time and Daily hourly activation not
subject to the measured value:

- ON - OFF
- 00.00 to 05:00 ppm Cl 2
- 00:00 to 14.00 pH

Working time: 000 to 999 sec.

Relays 3A resistive load up to 230Vac

Measure range

Code	Description
pH	0 ÷ 14,00 pH
ORP	± 1500 mV
Chlorine (Photometric chamber)	0 ÷ 5,00 ppm (*)
Temperature	with PT100/PT1000 0 ÷ 100°C (32 ÷ 212 °F)

(*): DPD Method

Product line Photometer Light Multi parameters

SPL3CL	Photometer	Free Chlorine, pH and Redox
---------------	------------	-----------------------------

Product line Photometer System Single parameter

Code	Model	Description
SPT2CL	Photometer	Free Chlorine
SPT2CT	Photometer	Total Chlorine

Product line Photometer System Multi parameters

SPT3CL(*)	Photometer	Free Chlorine and pH
SPT4CL	Photometer	Free Chlorine, pH and Redox
SPT5CL	Photometer	Free, Total and Combined Chlorine, pH, Redox

(*): Sea water application on demand code **SPT3CLMW0001**

pH/Redox Probes



SPH-1 / SRH-1

Field Application:

- General laboratory
- Drinking Water
- Swimming pools
- Water monitoring and control plan



Features:

- Low maintenance sealed unit
- Gel filled reference cell
- BNC connection with Boot plastic Cover
- Cable length 6 or 1,5 meter
- Pellon Diaphragm high accuracy



SPH-3 WW SRH-3 PT

Field Application:

- Waste water
- Drinking Water
- Cooling Towers
- Legionella disinfection
- Galvanic Process

Features:

- Low maintenance sealed unit
- Gel filled reference cell
- S8 connection with PG 13,5 mm
- Glass Body
- Diaphragm open hole



SPH-4 HP

Field Application:

- Waste water
- Drinking Water
- Reverse Osmosis
- Cleaning in place (CIP)
- Galvanic Process

Features:

- Low maintenance sealed unit
- Gel filled reference cell
- S8 connection with PG 13,5 mm
- Glass Body for High Temperature Enviromental
- Diaphragm 2 Sigle pore



SPH-4 HT SRH-4 HT-PT

Field Application:

- Ammonia application
- Chromium plating
- Reverse Osmosis
- Bisulphite application
- Galvanic Process

Features:

- Low maintenance sealed unit
- Gel filled reference cell
- S8 connection with PG 13,5 mm
- Glass Body for High Pressure Enviromental
- Three ceramic diaphragm type

Measure range

Measurement range	Min. conductivity	Temperature range	Pressure range	Body material	Membrane material	Reference electrolyte	Diaphragm type	Electrical connection	
SPH-1 1.5M		Code 9900105001						pH	Probes
2÷12	50 µS/cm	0÷60°C	0÷4 bar	Epoxy	Glass	GEL	1 Ceramic	1,5m cable + BNC	Standard Ø 12
SPH-1 5M		Code 9900105088						pH	Probes
2÷12	50 µS/cm	0÷60°C	0÷4 bar	Epoxy	Glass	GEL	1 Ceramic	5m cable + BNC	Standard Ø 12
SPH-3 WW		Code 9900105005						pH	Probes
2÷12	5 µS/cm	0÷80°C	0÷6 bar	Glass	Glass	GEL	1 Open hole	S8	PG 13.5
SPH-4 HP		Code 9900105006						pH	Probes
0÷14	5 µS/cm	0÷130°C	0÷6 bar	Glass	Glass	GEL	2 Single Pore	S8	PG 13.5
SPH-4 HT		Code 9900105007						pH	Probes
0÷14	5 µS/cm	0÷130°C at 6 bar	0÷16 bar at 25°C	Glass	Glass	GEL	3 Ceramic	S8	PG 13.5
SRH-1-1.5M		Code 9900105031						Redox	Probes
±1000 mV	-	0÷60°C	0÷4 bar	Epoxy	Platinum wire	GEL	1 Ceramic	1,5m cable + BNC	Standard Ø 12
SRH-1-5M		Code 9900105089						Redox	Probes
±1000 mV	-	0÷60°C	0÷4 bar	Epoxy	Platinum wire	GEL	1 Ceramic	5m cable + BNC	Standard Ø 12
SRH-3 PT		Code 9900105033						Redox	Probes
±2000 mV	-	0÷80°C	0÷6 bar	Glass	Platinum wire	GEL	1 Open hole	S8	PG 13.5
SRH-4 HT - PT		Code 9900105034						Redox	Probes
±2000 mV	-	0÷130°C at 6 bar	0÷16 bar at 25°C	Glass	Platinum wire	GEL	3 Ceramic	S8	PG 13.5

pH/Redox Probes

* **S7 connection:** it is a electrical connection only

** **S8 connection:** S7 on the top electrical probe connection and PG 13.5 mm mechanical connection

Conductivity Probes

The **seko** range of conductivity probes is specially designed for use in industrial environments in conjunction with **seko** measurement instruments. The various available models make it possible to cover an extremely wide measurement range. There are versions with temperature sensors and special versions with graphite or platinum probes, PTFE cell bodies and IP67 connectors.

Measurement of conductivity is performed by suspending the two metallic electrodes of the probe in the solution to be measured. The passage of the current between the two electrodes indicates the electrical resistance of the liquid, and therefore its conductivity.

The measurement is influenced by the temperature. In saline solutions, measurement variations of 2% / °C can occur. This variation can even reach 7% / °C. Therefore, conductivity probes without temperature sensors should only be used if the solution being tested is maintained at a temperature between 15°C and 25 °C, restricting the potential for error to 10%.

Note All the models are guaranteed for a maximum pressure of 6 bars.



C-K1 PT

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Boiler
- Reverse Osmosis
- CIP
- Irrigation
- Fish Farming
- Dairy

Features:

- Costant Cell: 1 cm⁻¹ or K=1
- Body material: Glass (130°C)
- Electrodes material: Platinum
- Mechanical Connection: Ø12 mm

Without temperature sensor



CT-K5

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Reverse Osmosis
- Irrigation

Features:

- Costant Cell: 0,1 cm⁻¹ or K=10
- Body material: PP (80°C)
- Electrodes material: Stainless steel 316L
- Mechanical Connection: ¾ Gas M PP

With temperature sensor (PT100)



C-K10/5 /1

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Irrigation

Features:

- Costant Cell:
 - 0,1 cm⁻¹ or K=10
 - 0,2 cm⁻¹ or K=5
 - 1,0 cm⁻¹ or K=1
- Body material: PVC (60°C)
- Electrodes material: Stainless steel 316L
- Mechanical Connection: ½ Gas M Pvc

Without temperature sensor



CT-K10

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Reverse Osmosis
- Irrigation

Features:

- Costant Cell: 0,1 cm⁻¹ or K=10
- Body material: PP (80°C)
- Electrodes material: Stainless steel 316L
- Mechanical Connection: ¾ Gas M PP

With temperature sensor (PT100)



CT-K1

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Reverse Osmosis
- Irrigation

Features:

- Costant Cell: 0,1 cm⁻¹ or K=10
- Body material: PP (80°C)
- Electrodes material: Stainless steel 316L
- Mechanical Connection: ¾ Gas M PP

With temperature sensor (PT100)

Measure range

Measurement range	Constant [C-K]	Temperature range	Pressure range	Body material	Mounting Process	Cable
C-K10	Code 9900101012			Without temperature Sensor		
0,01÷500µS	C=0,1 cm-1 K=10cm	60°C	6(*)	PP-AISI 316	1/2" G.M.	5 m
C-K5	Code 9900101011			Without temperature Sensor		
0,1÷1000µS	C=0,2 cm-1 K=5cm	60°C	6(*)	PP-AISI 316	1/2" G.M.	5 m
C-K1	Code 9900101010			Without temperature Sensor		
1÷5000µS	C=1 cm-1 K=1cm	60°C	6(*)	PP-AISI 316	1/2" G.M.	5 m
C-K1-PT	Code 9900101013			Without temperature Sensor		
1÷20000µS	C=1 cm-1 K=1cm	120°C	6(*)	Glass - Platinum	Ø 12 mm	6 m
CT-K10	Code 9900101103			(PT100) With temperature Sensor		
0,01÷500µS	C=0,1 cm-1 K=10cm	80°C	6(*)	PP-AISI 316	3/4" G.M.	Plug (**)
CT-K5	Code 9900101102			(PT100) With temperature Sensor		
0,5÷2000µS	C=0,2 cm-1 K=5cm	80°C	6(*)	PP-AISI 316	3/4" G.M.	Plug (**)
CT-K1	Code 9900101101			(PT100) With temperature Sensor		
5÷5000µS	C=1 cm-1 K=1cm	80°C	6(*)	PP-AISI 316	3/4" G.M.	Plug (**)

Conductivity Probes

(*) The maximum pressure of 6 bars is guaranteed at 25 °C. As the temperature increases, the pressure decreases linearly and at 50° or 80 °C, the maximum pressure is 1 bar.

(**) To be used in conjunction with CC series cables.

Conductivity Probes



CT-K1 G

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Reverse Osmosis
- CIP
- Irrigation
- Fish Farming

Features:

- Constant Cell: 1 cm^{-1} or $K=1$
- Body material: PVC (60°C)
- Electrodes material: Graphite
- Mechanical Connection: $\varnothing 12 \text{ mm}$

With temperature sensor (PT100)



CT-K1-SS

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Reverse Osmosis
- Irrigation

Features:

- Constant Cell: $0,1 \text{ cm}^{-1}$ or $K=10$
- Body material: PVDF (80°C)
- Electrodes material: Stainless steel 316L
- Mechanical Connection: $\frac{3}{4}$ Gas M PP

With temperature sensor (PT100)



CT-K1-GR

Field Application:

- Waste Water
- Drinking Water
- Cooling Towers
- Reverse Osmosis
- Irrigation

Features:

- Constant Cell: $0,1 \text{ cm}^{-1}$ or $K=10$
- Body material: PVC (60°C)
- Electrodes material: Graphite
- Mechanical Connection: $\frac{1}{2}$ Gas M PVC

With temperature sensor (PT100)

Measure range

Measurement range	Constant [C-K]	Temperature range	Pressure range	Body material	Mounting Process	Cable
CT-K1-G	Code 9900101124					
5÷20000µS	C=1 cm-1 K=1cm	60°C	6(*)	PVC Graphite	PG 13,5 mm	7 m
					(PT100) With temperature Sensor	
CT-K1-SS	Code 9900316009 (5m) 9900316010 (10m)					
1÷20000µS	C=1 cm-1 K=1cm	100°C	6(*)	PTFE	1" G.M.	5 m or 10 m
					(PT100) With temperature Sensor	
CT-K1-GR	Code 9900316028 (5m) 9900316029 (10m)					
1÷20000µS	C=1 cm-1 K=1cm	50°C	6(*)	PVC	1/2" G.M.	5 m or 10 m
					(PT100) With temperature Sensor	

(*) The maximum pressure of 6 bars is guaranteed at 25 °C.
As the temperature increases, the pressure decreases linearly and at 50° or 80 °C, the maximum pressure is 1 bar.

Conductivity Probes

Inductive Probes

The S411/IND series of inductive sensors has been engineered and developed to produce an electrode that is very powerful but at the same time competitive. The result has been obtained by moulding the sensor made using polypropylene reinforced with fibreglass.

This sensor offers all the advantages of the inductive cond. measurement method, including the absence of passivation of the conventional conductivity electrodes. All the sensors in the S411/IND range are temperature-compensated, and are also designed for inline, submersion or tank installation.



S411/IND



S411/IND/E



S411/IND/T IN



S411/IND/T

Measure range Inductive Probes

Inductive Probes	SENSOR S411/IND
Temperature	-5 to 60 °C (without freezing)
Contact materials	Glass-reinforced polypropylene
Temp. compensation	PT1000 wires
Cable	Standard 5 metre
Connection	½" BSP male
Protection rating	IP67
Materials	PVC with Viton gaskets
Operating temperature	-5 to 60 °C (without freezing)
Submersion length	600 or 1200 mm
Assembly	Standard bracket or optional flange
Operating pressure	From vacuum to 6.5 bar (100 psi)
Conductivity Range	1000 µS to 1 Simens
Resolution	100 µS to 1000 µS
Code 6100011441	

Inductive Probes

Dissolved Oxygen Probes



Dissolved Oxygen Probes

OXYSENS®

The OXYSENS® is an electrochemical oxygen sensor designed for applications in water, e.g. waste water treatment, swimming pools or fish farms. It is easy to maintain, because the membrane and the electrolyte don't need to be replaced. The response time of the OXYSENS® is fast, it is almost independent of flow and insensitive to soiling.



Dissolved Oxygen Probes

S423/C OPT

The S423/C OPT sensor with an integrated temperature sensor is based on luminescent optical technology. Without calibration requirements and thanks to an ultra low power technology, the S423/C OPT sensor meets the demands of field works and short or long term campaigns. Without oxygen consumption, this technology allows you an accurate measure in all situation and especially in very low oxygen concentrations.

The S423/C OPT sensor stores calibration and history data within the sensor. This allows you a "plug and play" system without re-calibration. Thanks to the Universal Modbus RS485 protocol, The S423/C OPT sensor can be connected to all devices commonly used (Datalogger, Controller, Automat, Remote System...).

Measure range

Dissolved Oxygen Probes	OXYSENS®	S423/C OPT (35mm)
Measuring method	Measurement of the electrical current affected by the partial pressure of oxygen	Optical measure by luminescence
Measurement range	40ppb÷40ppm	0,00 to 20,00 mg/L / 0,00 to 20,00 ppm / 0-200% [Resolution 0,01]
Accuracy	< 0.5% [relative to current in air]	± 0,1mg/L / ±0,1 ppm / ±1%
Response time	98% Max. 60 s at 25 °C	90% of the value in less than 60 seconds
Required flow	≥ 0.03 m/s	No necessary move
Temperature sensor	NTC 22 kOhm	CTN
Storage temperature	-10÷60°C	-10÷60°C
Temperature range	0÷60°C	0÷50°C
Pressure range	0÷4 Bar	0÷5 Bar
Body material	Stainless steel 1.4435, silicone, EPDM	Stainless Steel INOX 316L
Membrane material	OPTIFLOW	No membrane
Reference electrolyte	Silver platinum combination	No electrolyte
Electrical connection	5 m cable	10 m cable
Mechanical mounting	PG 13.5	35mm
Measuring method	Measurement of the electrical current affected by the partial pressure of oxygen	Optical measure by luminescence
Signal interface	-	Modbus RS-485 (standard) and SDI-12 (option)
Polarization voltage	-670 ± 50 mV	5 to 12 volts
Application fields	Water applications: Waste water treatment, swimming pools, fish farms; composting facilities	Urban wastewater treatment, industrial effluent treatment, surface water monitoring, drinking water
	Code 9900316005	Code 9900105091 35mm

Flow Sensor



Flow Sensor

SFW

The paddlewheel flow sensor SFW is designed to be used with every kind of solid-free liquid. The sensor can measure flow from 0.15 m/s (0.5 ft/s) producing a frequency output signal highly repeatable.

A new electronic, with a push-pull output, is now available for a safe connection to any kind of PLC/instrument digital input.

A special family of fittings ensures installation into all pipe material in sizes from DN15 to DN600 (0.5" to 24").



Flow Sensor

SFWE

The SFWE insertion magnetometers can measure flow rate in both metal and plastic pipes.

No moving parts allow the measurement of liquids with suspended solids as long as conductive and homogeneous.

The sensors can be assembled into the standard FLS fittings for installation from DN15 to DN600 (0.5" to 24").

They offer frequency output to use with FLS flow instrumentation and 4-20 mA output for long distance transmission and PLC connection.

Special versions for salt-water applications (high concentration of chlorides as sea water) and for high temperature conditions.

Measure range

Flow Sensor	SFW					SFWE		
Working range	0.15 to 8m/s [0.5 to 25ft/s]					0.15 to 8m/s [0.5 to 25ft/s]		
Minimum reynolds	4500					-		
Linearity	±0.75% of full scale					±1% of reading +1.0 cm/s		
Repeatability	±0.5% of full scale					±0.5% of reading		
Maximum process Pressure/Temperature	PVC-Cbody:	PVDFbody:	Brass&SSbody:			16 bar - 25°C 8.6 bar - 70°C		
	10 bar - 25°C 1.5 bar - 80°C	10 bar - 25°C 1.5 bar - 100°C	25 bar - 120°C 25 bar - 100°C					
Materials	Sensor body:	O-rings:	Rotor:	Shaft:	Bearings:	Sensorbody:	O-rings:	Electrodes:
	CPVC or PVDF or 316LSS	EPDM or FPM	ECTFE (Halar [®])	Ceramic (Al ₂ O ₃)	Ceramic (Al ₂ O ₃)	316L SS PVDF	EPDM or FPM	316L SS
Outputs	Square wave, frequency: 45 Hz per m/s [13.7 Hz per ft/s] nominal 4÷20 mA with K330 output kit mounted					4÷20 mA - Isolated Square wave, frequency: 0-500Hz Open collector: flow direction		
Power supply	5 to 24 VDC ± 10% regulated					12 to 24 VDC ± 10% regulated (reverse polarity and short circuit protected)		
Application fields	Water and industrial waste water treatment, water distribution, processing and manufacturing industry, textile finishing, chemical production, cooling and Heating systems, swimming pools and Spas.					Water and waste water treatment, raw water intake, industrial water distribution, textile industry, swimming pools, Spas and aquariums, HVAC, processing and manufacturing industry.		
						Code 990031701X PVC SFW1 / SFW2 Code 990031704X Stainless Steel SFW1 / SFW2		

Potentiostatic Probes

CLPROBES

This range consists of potentiostatic amperometric probes to measure free or total chlorine for applications such as: water treatment, swimming pools, industrial applications and more.

The wide range of probes allows a better choice depending on the parameter to be tested, thus obtaining a more accurate measurement.

- The two-wire interface allows quick and easy installation.
- Calibration of the probe is guided by the **Kontrol CL500** instrument .



High pressure Probe sensors

Potentiostatic Probes

Measure range

Models	F-CL 1	F-CL 2	F-CL 3	F-CL 4	F-CL 5	F-CL 6	F-CL 7	F-CL 8	F-CL 9	F-CL 10	F-CL 11
Measure range	0÷10 ppm			0÷200 ppm	0÷2 ppm	0÷1 ppm	0÷5 ppm	0÷1 ppm	0÷5 ppm	0÷0,5 ppm	0÷5 ppm
pH range	4÷8 pH	4÷12 pH	4÷11 pH	4÷8 pH		5÷9 pH				4÷8 pH	4÷8 pH
Response time	1 minutes - 90% of measure (100% of measure after 15 minutes)										
Flow rate	30 L/h					80 L/h				30 L/h	
Temperature	45 °C					50 °C		70 °C		45 °C	
Pressure	1 bar	0,5 bar				5 bar (*)		8 bar (*)		0,5 bar	1 bar
Sensor material	Silver chlorine with gold					Gold				Silver chlorine with gold	
Membrane	M20	M48	M48 G	M20	M20	-				M20	M20
Electrolyte	ECL1	ECC1	ECS1 Gel	ECL1	ECL1	EAS1 Gel				ECL1	ECL1
Electrical connection	Wire connection with screw										
Mechanical mounting	Ø 24mm										
Application fields	Inorganic Free Chlorine	Organic Free Chlorine	Inorganic Free Chlorine								
Code	9900101140	9900101141	9900101142	9900101146	9900101148	9900101149	9900101150	9900101152	9900101153	9900101159	9900101173

(*) with Snap-Ring

F-CL 2 • F-CL 3 • T-CL 1 can be used in sea water application with special electrolytes

and **Modular probe** holder

CL Probes Holder


















PSS-PLEXI

Features

- In/Out: 8x12 mm (tube)
- Material Plexiglas without color
- Hydraulic - **By Pass**
- Pressure **5 bar**
- Temperature **60°C**

- Code **9900103047** PSS-PLEXI [FLUX/PH]
- Code **9900103048** PSS-PLEXI [FLUX/PH/RX]
- Code **9900103049** PSS-PLEXI [FLUX/CL-A]
- Code **9900103050** PSS-PLEXI [FLUX/PH/CL-A]
- Code **9900103051** PSS-PLEXI [FLUX/PH/RX/CL-A]
- Code **9900103052** PSS-PLEXI [FLUX/PH/CL-P]
- Code **9900103053** PSS-PLEXI [FLUX/CL-P]
- Code **9900103054** PSS-PLEXI [FLUX/PH/RX/CL-P]
- Code **9900103055** PSS-PLEXI [FLUX/PH/RX/CL-A/CL-P]
- Code **9900103056** PSS-PLEXI [FLUX/CL-P/CL-P]

F-CL12	F-CL13	T-CL 1	T-CL 2	D-CL	D-CL 2	D-CL 3	PAA 1	H ₂ O ₂ 1	H ₂ O ₂ 2	O ₃ 1	O ₃ 2	BR 1
0÷2 ppm	0÷2 ppm	0÷10 ppm	0÷5 ppm	0÷10 ppm	0÷1 ppm		0÷2000 ppm	0÷200 ppm	0÷500 ppm	0÷2 ppm	0÷5 ppm	0.05÷10 ppm
4÷12 pH	4÷11 pH	4÷14 pH		1÷14 pH	5÷9 pH		2÷11 pH		1÷14 pH		6.5÷9.5 pH	
1 minutes - 90% of measure (100% of measure after 15 minutes)												
30 L/h				80 L/h			30 L/h					
45 °C				50 °C		70 °C	45 °C					
0,5 bar				1 bar	5 bar (*)	8 bar (*)	1 bar	5 bar (*)		1 bar		0,5 bar
Silver chlorine with gold					Gold			Silver chlorine with gold				
					-							
					EAS1 Gel		EPS7/W		EOZ1		EBR1 Gel	
Wire connection with screw												
Ø 24mm												
Organic Free Chlorine	Inorganic Free Chlorine	Total Chlorine		Chlorine Dioxide			Peracetic Acid	Hydrogen Peroxide		Ozone		Bromine
Code 9900101174	Code 9900101177	Code 9900101143	Code 9900101172	Code 9900101144	Code 9900101151	Code 9900101154	Code 9900101157	Code 9900101158	Code 9900101156	Code 9900101175	Code 9900101176	Code 9900101179

Potentiostatic Chlorine Probes

Turbidimetric Probes

The principle of measurement is the deviation of light produced by suspended particles in the liquid. Thanks to the dual sensor is possible to make measurements of turbidity at low and very low concentrations with high accuracy and repeatability.

Avoiding contact with the measuring liquid, the optical LED technology make the system stable over time and minimize the need for re-calibration. The cell is installed directly in line, the maximum allowable pressure is 4 or 6 bar, pipe or bypass. The flow velocity does not affect the measurement.

Features and Benefits

Reliable concentration measurement using optical measuring process

Infrared light pulsing beams scattering method

Black rigid PVC sensor body

No mechanically moving parts

Measured value pre-processing in sensor resulting in low signal transmission sensitivity



Turbidimetric probes

Features:

- SS AISI 316 material
- Solid Measure with Led light with Resistors sensor
- Threaded Connection 2 1/2" M GAS
- Two cables included

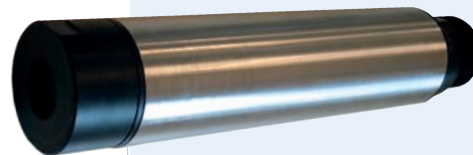
S462/SS

Field Application:

- Sewage Treatment
- Drinking Water
- Waste water
- Cleaning in place

Resistors sensor

Threaded Connection 1" GAS
Cables included



Turbidimetric probes

Features:

- SS AISI 316 material
- Turbidity Measure with Led light with Resistors sensor
- Threaded Connection 1" GAS
- Cables included

S461/T

Field Application:

- Sewage Treatment
- Sludge application
- Waste water
- Fish farming

Resistors sensor

Threaded Connection 1" GAS
Cables included



Turbidimetric probes

Features:

- Black Plastic Body
- Turbidity Measure with Led light with

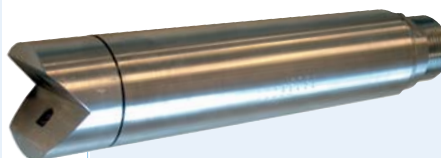
S462/PVC/SWP

Field Application:

- Waste water
- Drinking Water
- Swimming pool
- Sewage Treatment

Resistors sensor

Threaded Connection 2 1/2" F GAS
Two cables included



Suspended Solids probes

Features:

- SS AISI 316 material
- Solid Measure with Led light with Resistors sensor
- Threaded Connection 1" GAS
- Cables included

S461/S

Field Application:

- Sewage Treatment
- Sludge application
- Waste water

Resistors sensor

Threaded Connection 1" GAS
Cables included

Measure range

Measurement range	Measurement method	Temperature range	Pressure range	Body material	Power supply	Electrical connection	Threaded connection	Applications field
S462/PVC Code 9900316021				Turbidimetric Probes				
0,00÷100 NTU/FTU	Scattering at 180° Light absorption	0÷45 °C	0÷6 bar	PVC black Transparent PVC door	12÷24 Vdc	2 cables 5m	2½"F	- Water treatment plants, downstream of filtration and decantation. Process section; - Aging facilities of wastewater reuse for agricultural or industrial purposes; - Food industry particularly in the production of beverages, wine, beer etc.; - Pool water.
S462/SS Code 9900316006				Turbidimetric Probes				
0,00÷100 NTU/FTU	Scattering at 180° Light absorption	0÷90 °C	0÷6 bar	Stainless Steel INOX 316 Tempered glass window	12÷24 Vdc	5m cable	2½"M	- Food industry particularly in the production of beverages, wine, beer etc.; - Pool water.
S461/T Code 9900316022				Turbidimetric Probes				
0,00÷/4 /40 /400 /4000	Scattering at 90° Light absorption	0÷60 °C	0÷4 bar	Stainless Steel INOX 316 Special Optical Glass or Viton	12÷24 Vdc	10m cable	1"GAS	Wastewater, primary water, industrial water, recirculating water.
S462/SWP Code 9900316024				Turbidimetric Probes				
0,00÷40 NTU/FTU	Scattering at 180° Light absorption	0÷45 °C	0÷6 bar	PVC black Transparent PVC door	12÷24 Vdc	2 cables 5m	2½"F	Pool water

Turbidimetric Probes

Measure range

Measurement range	Measurement range	Temperature range	Pressure range	Body material	Power supply	Electrical connection	Threaded connection	Applications field
S461/S Code 9900316025				Suspended Solid Probes				
20 gr/l	Scattering at 90° Light absorption	0÷60 °C	0÷4 bar	Stainless Steel INOX 316 Special Optical Glass or Viton	12÷24 Vdc	10m cable	1"GAS	Wastewater, primary water, industrial water, recirculating water.

Suspended Solid Probes

Suspended Solid Probes

Suspended Solid Probe

The 7520 SAV and 7540 SRH sensors are used for optical solids content measurement in turbid water for up to 150g solid matter/l.

Applications

- Solids content measurement of suspended matter in sewage treatment plants: Primary sludge, digested sludge, thickened sludge, Inflow to centrifuge / press.
- Industrial quality control.

Features and Benefits

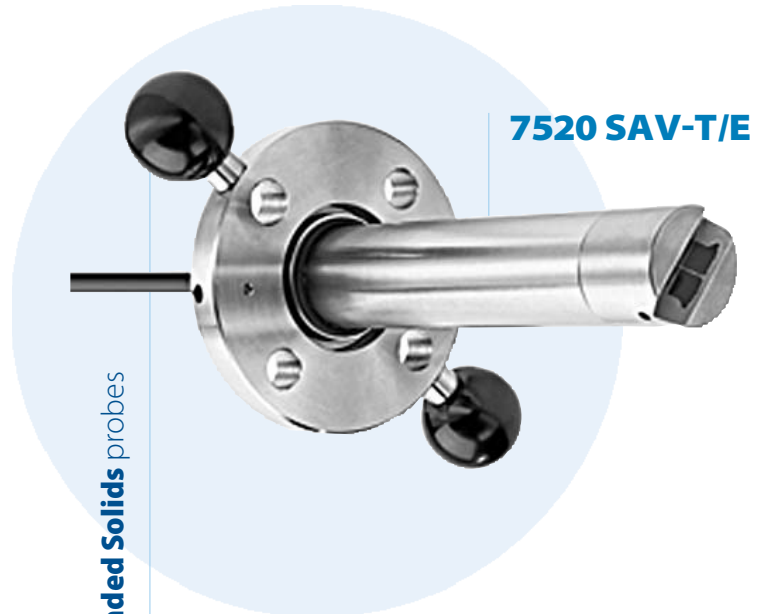
Reliable concentration measurement using optical measuring process.

Infrared light pulsing beams scattering method.

Black rigid PVC sensor body.

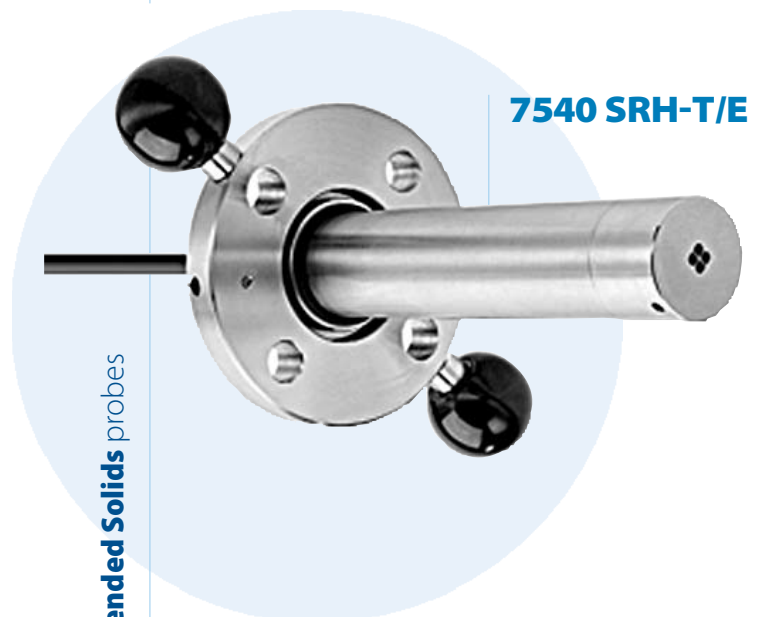
No mechanically moving parts.

Measured value pre-processing in sensor resulting in low signal transmission sensitivity.



Suspended Solids probes

7520 SAV-T/E



Suspended Solids probes

7540 SRH-T/E

Measure range

Suspended Solid Probes		7520 SAV-T/E	7540 SRH-T/E
Mechanical data	Dimension (LxØ) Immersion type	139 x 38 Ø mm	134 x 38 Ø mm
	Dimension (LxØ) Installation type	220 x 38 Ø mm	220 x 38 Ø mm
	Weight Immersion type	Approx. 1Kg	Approx. 1Kg
	Weight Installation type	Approx. 3Kg	Approx. 3Kg
Materials	Sensor Body	Stainless steel SS316L Ti	Stainless steel SS316L Ti
	Sight glass	Epoxy resin	Epoxy resin
	O-rings	Viton®	Viton®
Measurement range	Measuring principle	Light absorption method	Backscatter light method
	Optical components	Light source 2 LEDs detectors 2 photodiodes	Light source 2 LEDs detectors 2 photodiodes
	Measuring light	Infrared light at 880 mm absorption maximum	Infrared light at 880 mm absorption maximum
	Measuring range	0÷50g solid matter/l, dependent on sludge type	10÷150g solid matter/l, dependent on sludge type
	Accuracy	< 1% of measuring range end value	< 1% of measuring range end value
	Reference	Using four-beam pulsed light method	Using four-beam pulsed light method
	Cable lengths	T version 13m E version 1m + 10m extension cable	T version 13m E version 1m + 10m extension cable
	Calibration	With silica standard	With silica standard
Operating conditions	Op. temperature	0÷150°C	0÷150°C
	Op. pressure	max 6 bar	max 6 bar
	Protection	IP 68	IP 68
		On demand	On demand

Suspended Solid Probes

Immersion probe holders

Probe Accessories

Sensors for measuring pH, Redox and Conductivity must be installed in the system using special probe holders that ensure the correct mechanical protection and degree of impermeability.

The pH and Redox measurement probes can be submerged in tanks, inserted in pipes or placed in sample draw down containers (Catch Pots).

The immersion models with adjustable flange can be used in conjunction with a counter-flange which allows quick and easy installation and removal. The P-IG range with a floating platform adapts to the varying liquid level of deep water tanks. The polypropylene versions PIR-2-PP-xxx can house two sensors, e.g. pH and Redox.

It is not recommended to use PH and/or Redox sensor in the same probe holder as a conductivity cell.



Immersion	No. of probes	Max Temperature	Material
PI PVC 400	Code 9900100111		
400 mm	1	40°C	PVC
PI PVC 800	Code 9900100112		
800 mm	1	40°C	PVC
PI PVC 1000	Code 9900100115		
1000 mm	1	40°C	PVC
PI PVC 1500	Code 9900100113		
1500 mm	1	40°C	PVC
PI PVC 2000	Code 9900100116		
2000 mm	1	40°C	PVC



Immersion	No. of probes	Max Temperature	Material
PIR PVC 200	Code 9900100101		
100÷250 mm	1	40°C	PVC
PIR PVC 400	Code 9900100102		
100÷450 mm	1	40°C	PVC
PIR PVC 800	Code 9900100103		
100÷850 mm	1	40°C	PVC
PIR PVC 1000	Code 9900100105		
100÷1050 mm	1	40°C	PVC
PIR PVC 1500	Code 9900100106		
100÷1550 mm	1	40°C	PVC



Immersion	No. of probes	Max Temperature	Material
PIR 2 PP 400	Code 9900100121		
100÷450 mm	2	80°C	PP
PIR 2 PP 800	Code 9900100122		
100÷850 mm	2	80°C	PP
PIR 2 PP 1000	Code 9900100124		
100÷1050 mm	2	80°C	PP

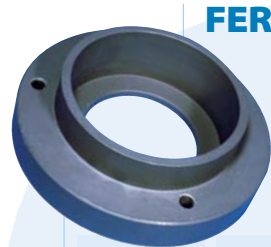


Immersion probe holder

Immersion	No. of probes	Max Temperature	Material
PIG	Code 9900100131		
Floating	1	40°C	PVC
B PIG	Code 9900100132		
2m anchorage arm	-	40°C	PVC



Immersion	No. of probes	Max Temperature	Material
PICIR PP 400	Code 9900100141		
100÷450 mm	1	80°C	PP
PICIR PP 800	Code 9900100142		
100÷850 mm	1	80°C	PP
PICIR PP 1000	Code 9900100144		
100÷1050 mm	1	80°C	PP
PICIR PP 1500	Code 9900100145		
100÷1550 mm	1	80°C	PP



Counter-flange

for quick removal

Int. Diameter	Ext. Diameter	Max Temperature	Connection	Material
FER	Code 9900100133			
65 mm	140 mm	40°C	4 holes Ø 6 mm	PP

Probe holders with 3/4" probe attachment without protection

These can house conductivity probes with threaded 3/4" G. Attachment with output cable or IP67 connector.

Cables, buffer solutions and probe accessories

Probe Accessories



PIA PVC

Immersion	No. of probes	Max Temperature	Max Pressure	1/h Min - Max
PIA PVC 400	Code 9900100151			
400 mm	1	40°C	2÷6	100÷600
PIA PVC 800	Code 9900100152			
800 mm	1	40°C	2÷6	100÷600

Immersion probe holders with spray cleaning

These special probe holders can be connected with a cleaning liquid injection unit. Regular cleaning of the probe ensures linearity and stability of the measurement over time, preventing the need for time-consuming manual intervention.



PSS 7 Single



PSS 7A



PSS 7

Connection to the process	No. o probes	Max Temperature	Max Pressure
PSS 7 Single	Code 9900103021		
By-pass	1	40°C	6 bar
PSS 7	Code 9900103008		
By-pass	3	40°C	6 bar
PSS 7A	Code 9900103010		
By-pass	3	40°C	6 bar

Tap probe holders

Tap probe holders are used for in-line measurements where part of the sample is re-directed from the main pipe to the probe holder. The water can be drawn off into the sampling circuit at a pressure of 6 bars.

Pressurized probe holder

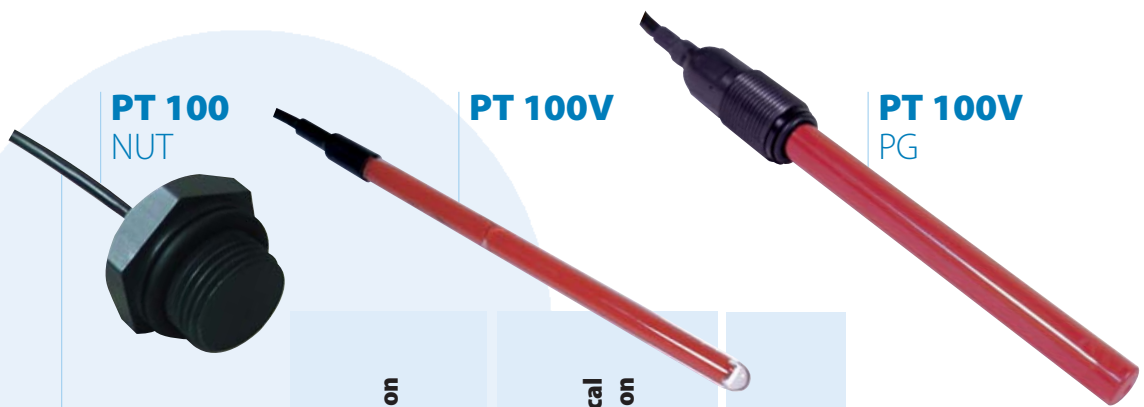


Connection to the process	Mechanical Connection	Max Temperature	Max Pressure	Material
PSS 3	Code 9900106670			
1/2" G.M.	PG 13,5 or Ø 12 mm	60°C	7 bar	PVC
SPP	Code 9900100134			
1" G.F.	PG 13,5	60°C	16 bar	PP + PVC
SPP FIL	Code 9900100135			
3/4" or 1" 1/4 G.M.	PG 13,5	80°C	16 bar	PP

Pressurized probe holders

Pressurised probe holders are used to immerse the probe directly into the pipe where the sample to be measured passes. The probe must always be positioned vertically or slanting in the direction of the flow at a maximum of 45°. The probe holder connection line must be fitted between two isolation valves (input and output) in order to permit the prevention of the flow during maintenance of the probes.

Temperature sensor



Connection	Mechanical Connection	Material
PT 100 NUT	Code 9900101178	
1 m 2-wire cable	3/4" GAS M	PVC
PT 100 NUT	Code 9900101113	
1 m 2-wire cable	1/2" GAS M	PVC
PT 100V	Code 9900105061	
5 m 3-wire cable	Standard Ø 12	Pyrex
PT 100V PG	Code 9900105062	
6 m 3-wire cable	PG 13,5	Pyrex

Temperature probes

In order to correctly measure the pH in environments with variable temperatures, it is necessary to correct the response error of the probe resulting from temperature change. The measuring instrument must therefore be connected to a special temperature sensor.

Max Pressure 7 bar

Cables, buffer solutions and probe accessories

Probe Accessories



Probe cables

Probe cables with S7 heads

(*) **HT** - High Quality Cable for higher protection from electrical interference.

Length	Type of Cable	Terminal block
CE 1/B	Code CE 9900108001 CEB 9900109001	
1 mt.	Mod. RG58 5 mm	Crimping BNC Soldered BNC
CE 5/B	Code CE 9900108003 CEB 9900109003	
5 mt.	Mod. RG58 5 mm	Crimping BNC Soldered BNC
CE 10/B	Code CE 9900108004 CEB 9900109004	
10 mt.	Mod. RG58 5 mm	Crimping BNC Soldered BNC
CE 20/B	Code CE 9900108006 CEB 9900109006	
20 mt.	Mod. RG58 5 mm	Crimping BNC Soldered BNC
CE 10 HT⁹⁶/B	Code CE 9900110001 CEB 9900110101	
10 mt.	Mod. HT 5 mm	Crimping BNC Soldered BNC
CE 20 HT⁹⁶/B	Code CE 9900110002 CEB 9900110102	
20 mt.	Mod. HT 5 mm	Crimping BNC Soldered BNC
CE 30 HT⁹⁶/B	Code CE On demand CEB 9900110103	
30 mt.	Mod. HT 5 mm	Crimping BNC Soldered BNC



Probe cables

Cables for CTK Probe with 4-pole connectors

Length	Version	No. poles
CC 5	Code 9900110111	
5 mt.	standard	4
CC 10	Code 9900110112	
10 mt.	standard	4
CC 15	Code 9900110113	
15 mt.	standard	4



ASV

Measurement	Function	Output	Power supply
ASV	Code TPM032PX0000		
pH / Redox	Amplifier	Voltage	Battery lasts 4 years

Signal amplifiers

Battery-powered live ASV signal amplifier

In order to connect a pH or Redox measurement probe at a distance of over 15 meters, it is necessary to use the ASV signal amplifier to be connected between the probe cable and the extension cable of the measurement instrument.



RNC

Electrical surge suppressor

Electrical surge suppressor

Allows the elimination of Eddy currents
AISI 304 material - Ø 12 mm.

Code **9900101134**



ST PH



ST MS



ST RX

Certified buffer solutions

The precision and reliability of a pH, Redox or Conductivity measurement is determined by the buffer solution used for calibrating the probe. The special double-plug container ensures that a new unpolluted buffer is always available.

Buffer solution

Solution	Value	Quantity
ST PH 4	Code 9900122007	
pH	4,00 pH 20 °C	250 ml
ST PH 7	Code 9900122008	
pH	7,00 pH 20 °C	250 ml
ST PH 9	Code 9900122009	
pH	9,22 pH 20 °C	250 ml
ST RX 465	Code 9900122010	
Redox	465 mV 25 °C	250 ml
ST MS 8	Code 9900122018	
Conductivity	84 µS/cm 25°C	500 ml
ST MS 14	Code 9900122019	
Conductivity	1423 µS/cm 25°C	500 ml
ST MS 128	Code 9900122020	
Conductivity	12880 µS/cm 25°C	500 ml

A Worldwide Group at your service



BRAZIL

■ **Seko do Brasil Comercio de Sistemas de Dosagem Limitada**
03170-050 São Paulo (SP)
sekobrasil@sekobrasil.com.br
www.sekobrasil.com.br

BENELUX

■ **Seko Benelux B.V.**
7532 SK Enschede
(The Netherlands)
info@sekobenelux.com

CHINA

■ **Seko China Ltd**
072750 Hebei
china@seko.com
www.sekochina.com

DENMARK

■ **Seko Denmark**
DK-4930 Maribo
info@seko.com

FRANCE

■ **Seko Lefranc-Bosi S.A.**
77435 - Marne La Vallee
Cedex 2
lefrancbosi@lefrancbosi.com
service.commercial@seko.fr
www.lefrancbosi.com

GERMANY

■ **Seko Deutschland GmbH**
55252 Mainz - Kastel
info@seko-messtechnik.de
www.seko-germany.com

ITALY

■ **Seko Spa**
02010 S.Rufina - Rieti
sales@seko.com

ITALY

■ **Seko Spa [Process & Sytems]**
20068 Peschiera Borromeo -
Milano
info.psd@seko.com
info@seko.com

ROMANIA

■ **Seko Sieta S.r.l.**
400393 Cluj-Napoca
info.dpro@seko.com

RUSSIA

■ **OOO Seko**
129347 - Moscow
sekorussia@seko.com
www.sekorussia.ru

SINGAPORE

■ **Seko Dosing Systems Asia Pacific Pte Ltd**
608838 Singapore
asiapacific@seko.com

SOUTH AFRICA

■ **Seko Southern Africa (PTY) Ltd**
Kyasand - Johannesburg -
Gauteng
sales@sekosa.co.za

SPAIN

■ **Seko Ibérica Sistemas de Dosificación S.A.**
08960 Sant Just Desvern -
Barcelona
sekoiberica@sekoiberica.com

SWEDEN

■ **Seko Sweden**
26123 Landskrona
info@seko.com

TURKEY

■ **Seko Endüstriyel Pompalar ve Proses Sistemleri San. ve Tic. Ltd. Şti.**
Kartal Istanbul
info@seko.com.tr
www.seko.com.tr

UNITED ARAB EMIRATES

■ **Seko Middle East FZE**
P.O. Box 42090 - Hamriyah
Free Zone, Sharjah
info@seko.ae
sales@seko.ae

UNITED KINGDOM

■ **Seko UK Chemical Controls Ltd**
Harlow, Essex - CM19 5JH
seko.uk@seko.com
www.sekouk.com

USA

■ **Seko Dosing Systems Corporation**
Tullytown - PA 19007
sales@sekousa.com
www.sekousa.com

For more information
www.seko.com

