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## eco-PEN300

Article number: PF20505



### Description

The new and innovative precision-volume-dispenser eco-PEN300 made by ViscoTec offers a wide range of applications for low to high-viscosity dispensing.

### Theory of function

preeflow® eco-PEN is a rotating and perfectly pressure-tight displacement system. Self-sealing rotor/stator design. Conveyance action by medium displacement in the stator through controlled rotor movement. Safe conveyance without any modification of the medium. With its suck back option, preeflow® ensures clean and controlled material or medium cut-off while preventing post-dripping effects.

### Application

On-the-dot dosage with maximum volumetric precision – dot-and-bead application with application speeds adaptable to track speeds – joint sealing technology.

### Range of uses

- electronic packaging
- semiconductor
- LCD / LED
- photovoltaic
- medical
- biological chemistry
- laboratory
- optics and photonics
- SMD / SMT

### Technical features

- Genuine volumetric dosing
- Suck back effect
- Viscosity-independent dosing
- Easy to clean

- Primary pressure-independent dosing
- Controllable dosing flow
- Pressure-tight no valve
- Range of dosing pressures 16-20 bar

## Technical data

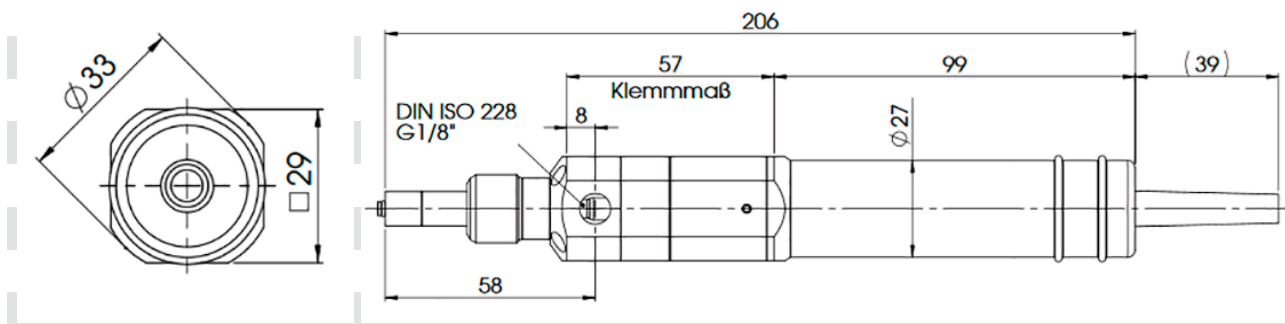
Dimensions:	Length, 216 mm, 29 x 29 mm, ø 33 mm
Weight:	280 g
Material infeed:	1/8" cylindrical Whitworth pipe thread DIN/ISO 228
Material outfeed:	Luer-Lock with O-ring, patented
Min. operating pressure:	0 bar, non-self-levelling fluid
Max. operating pressure:	0 to 6 bar input pressure, self-levelling-fluid
Max. dosing pressure:	16 to 20bar
Intrinsic tightness <sup>1</sup> :	approx. 2 bar (reference medium approx. 1000mPas at 20°C)
Parts in contact with the media:	HD-POM / stainless steel
Seals:	High-molecular PE, VisChem
Static seals:	Viton O ring (medium) NBR (dust)
Motor:	18 - 24 V DC, incremental encoder, planetary gears
Operating conditions:	+10°C to +40°C, air pressure 1 bar
Medium temperature:	+ 10 ° C to + 40 ° C
Storage environment:	dry & dust-free, -10°C to +40°C
Approx. dosing volume per revolution:	0.012 millilitres per revolution
Accuracy of dosing <sup>2</sup> :	± 1%
Repeat accuracy:	> 99%
Min. dosing quantity:	0.001 millilitres
Volume flow <sup>3</sup> :	0.12 – 1.48 millilitres per minute

(1) Max. dosing pressure and intrinsic tightness will decrease in direct proportion to a decrease in viscosity and increase in direct proportion to an increase in viscosity. Consultation with the manufacturer recommended.

(2) Volumetric dosing as absolute deviation in relation to one dispenser revolution. Depends on the viscosity of the dosing medium.

(3) Volume flow depends on viscosity and primary pressure.

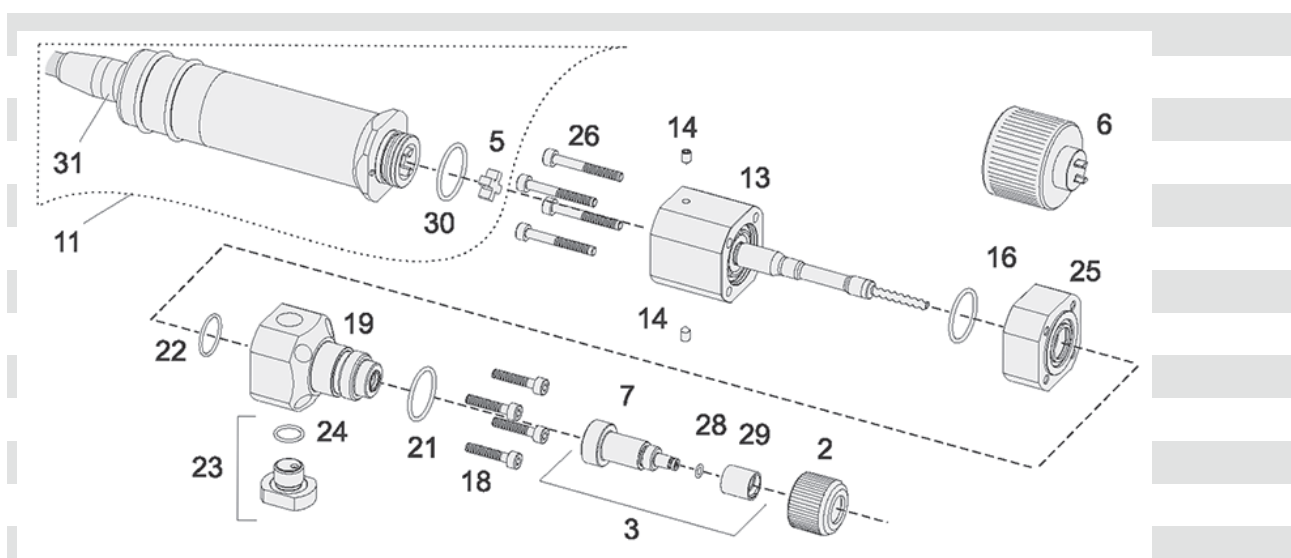
## Technical drawings



## Spare parts

Pos	Number	x	Description	Material
	PF20500		Dosing unit cpl.	
2	PF20425		Union ring	Aluminium
3	PF20517	x	End piece with Luer Lock cpl.	
5	PF20050	x	Star-shaped coupling	Elastomer
6	PF20108		Assembly aid	Aluminium
7	PF20426		Stator end piece cpl.	VisChem
11	PF20504	x	Drive unit cpl.	
13	PF20518		Bearing housing with rotor set cpl.	
14	PF20088		Set screw M3	A2
16	PF20007	x	O-ring Ø 16	FKM
18	PF20089		Allen screw M3	A2
19	PF20424		Pump housing	POM
21	PF20433	x	O-ring Ø 13	FKM
22	PF20011	x	O-ring Ø 13	FKM
23	PF20510		Bleed screw	POM
24	PF20513		O-ring Ø 8	FKM
25	PF20148		Sealing set with housing	
26	PF20090		Allen screw M3	A2
28	PF20035	x	O-ring Ø 2.95	FKM
29	PF20021		Threaded sleeve Luer Lock	Aluminium
30	PF20041	x	O-ring Ø 17	NBR
31	PF20784		motor cable	

x = Recommended spare and wear parts



## eco-PEN330

Article number: PF21525



### Description

The new precision-volume-dispenser eco-PEN330 made by ViscoTec offers a wide range of applications for low to high-viscosity dispensing.

### Theory of function

preeflow® eco-PEN is a rotating and perfectly pressure-tight displacement system. Self-sealing rotor/stator design. Conveyance action by medium displacement in the stator through controlled rotor rotation. Safe conveyance without any modification of the medium. With its suck back option, preeflow® ensures clean and controlled material or medium cut-off while preventing post-dripping effects.

### Application

On-the-dot dosage with maximum volumetric precision – dot-and-bead application with application speeds adaptable to track speeds – joint sealing technology

### Range of uses

- Fats
- Colours
- Sealing compounds
- Adhesives
- Oils
- Silicones
- Abrasive media

### Technical features

- Genuine volumetric dosing
- Suck back effect
- Viscosity-autonomous dosing
- Easy to clean
- Primary pressure-independent dosing
- Controllable dosing flow

- Pressure-tight without valve
- Range of dosing pressures 16 - 20 bar

## Technical data

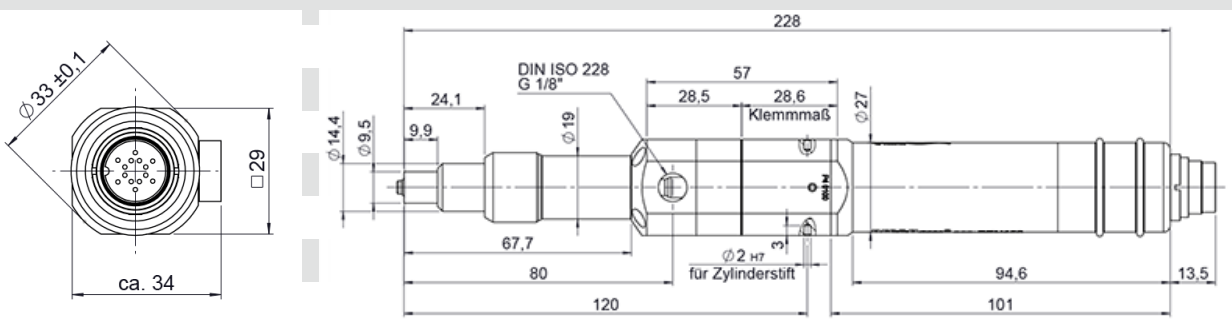
Dimensions:	Length, 225 mm, 29 x 29 mm, ø 33 mm
Weight:	300 g
Material infeed:	1/8" cylindrical whitworth pipe thread DIN/ISO 228
Material outfeed:	Luer lock with O ring, patented
Min. operating pressure:	0 bar, with self-levelling liquid
Max. operating pressure:	0 to 6 bar inlet pressure, with non-self-levelling fluid
Max. dosing pressure:	16 to 20 bar
Intrinsic tightness <sup>1</sup> :	approx. 2 bar (reference medium approx.10 mPas at 20°C)
Parts in contact with the media:	HD-POM / Stainless steel / VisChem
Seals:	high-molecular PE, VisChem
Static seals:	O-ring VisChem
Motor:	18 to 24 V DC, incremental encoder, planetary gear
Operating conditions:	+10°C to +40°C (Ta.), air pressure 1 bar
Medium temperature:	+10°C bis +40°C
Storage environment:	dry / dust-free -10°C to +40°C
Approx. dosing volume per revolution:	3 µl/U
Accuracy of dosing <sup>2</sup> :	± 1%
Repeat accuracy:	> 99%
Min. dosing quantity:	0,002 ml
Volume flow <sup>3</sup> :	0,2 bis 3,3 ml/min

(1) Max. dosing pressure and intrinsic tightness will decrease in direct proportion to a decrease in viscosity and increase in direct proportion to an increase in viscosity. Consultation with the manufacturer recommended.

(2) Volumetric dosing as absolute deviation in relation to one dispenser revolution. Depends on the viscosity of the dosing medium.

(3) Volume flow depends on viscosity and primary pressure.

## Technical drawings

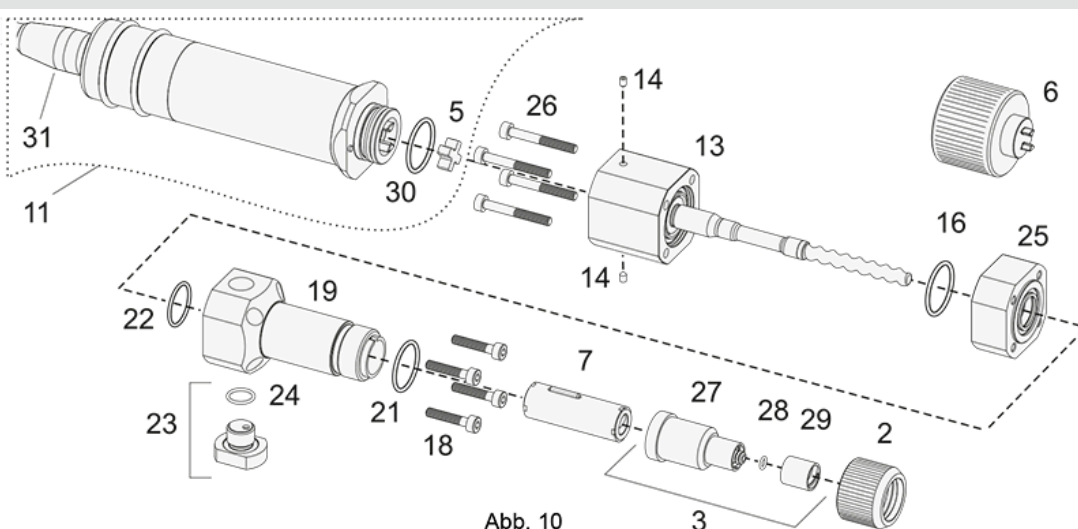




## Spare parts

Pos	Number	x	Description	Material
	PF21526		Dosing unit cpl. (ohne 11)	
2	PF20085		Union ring	Aluminium
3	PF20075		End piece with Luer Lock cpl.	POM
5	PF20050	x	Star-shaped coupling	Elastomer
6	PF20108		Assembly aid	Aluminium
7	PF21483	x	Stator cpl.	VisChem
11	PF21547	x	Drive unit cpl.	
13	PF21565		Bearing housing with rotor set cpl.	
14	PF20088		Set screw M3	A2
16	PF20007	x	O-ring Ø 16	FKM
18	PF20089		Allen screw M3	A2
19	PF20083		Dispenser housing	POM
21	PF20084	x	O-ring Ø 15	FKM
22	PF20011	x	O-ring Ø 13	VisChem
23	PF20510		Bleed screw	POM
24	PF20513		O-ring	FKM
25	PF20148		Sealing set with housing	
26	PF20090		Allen screw M3	A2
27	PF20076		End piece with Luer Lock cpl.	POM
28	PF20035	x	O-ring	FKM
29	PF20021		Threaded sleeve Luer Lock	Aluminium
30	PF20041	x	O-ring Ø 17	NBR
31	PF20784		motor cable	

x = empfohlene Ersatz- und Verschleißteile





## eco-PEN450

Article number: PF20092



### Description

The new and innovative precision-volume-dispenser eco-PEN450 made by ViscoTec offers a wide range of applications for low to medium-viscosity dispensing.

### Theory of function

preeflow® eco-PEN is a rotating and perfectly pressure-tight displacement system. Self-sealing rotor/stator design. Conveyance action by medium displacement in the stator through controlled rotor rotation. Safe conveyance without any modification of the medium. With its suck back option, preeflow® ensures clean and controlled material or medium cut-off while preventing post-dripping effects

### Application

On-the-dot dosage with maximum volumetric precision – dot-and-bead application with application speeds adaptable to track speeds – joint sealing technology

### Range of uses

- Fats
- Colour
- Sealing compounds
- Adhesives
- Oils
- Silicones
- Abrasive media

### Technical features

- Genuine volumetric dosing
- Suck back effect
- Viscosity-autonomous dosing
- Easy to clean
- Primary pressure-independent dosing
- Controllable dosing flow

- Pressure-tight without valve
- Range of dosing pressures 16 - 20 bar

## Technical data

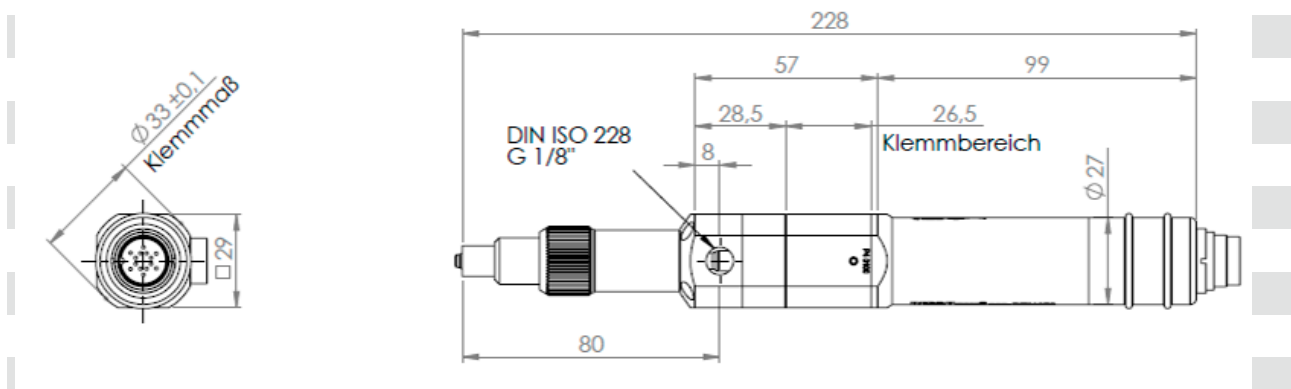
Dimensions:	Length, 228 mm, 29 x 29 mm, ø 33 mm
Weight:	300 g
Material infeed:	1/8" cylindrical whitworth pipe thread DIN/ISO 228
Material outfeed:	Luer lock with O ring, patented
Min. operating pressure:	0 bar, self-levelling-fluid
Max. operating pressure:	0 to 6 bar input pressure, non-self-levelling-fluid
Max. dosing pressure:	16 to 20 bar
Intrinsic tightness <sup>1</sup> :	approx. 2 bar (reference medium approx. 10mPas at 20°C)
Parts in contact with the media:	HD-POM / stainless steel
Seals:	High-molecular PE, VisChem
Static seals:	Viton O ring (medium) NBR (dust)
Motor:	18 - 24 V DC, incremental encoder, planetary gears
Operating conditions:	+10°C to +40°C, air pressure 1 bar
Medium temperature:	+10°C to +40°C
Storage environment:	dry & dust-free, -10°C to +40°C
Approx. dosing volume per revolution:	0.05 millilitres per revolution
Accuracy of dosing <sup>2</sup> :	± 1%
Repeat accuracy:	> 99%
Min. dosing quantity:	0.004 millilitres
Volume flow <sup>3</sup> :	0.5 to 6.0 millilitres per minute

(1) Max. dosing pressure and intrinsic tightness will decrease in direct proportion to a decrease in viscosity and increase in direct proportion to an increase in viscosity. Consultation with the manufacturer recommended.

(2) Volumetric dosing as absolute deviation in relation to one dispenser revolution. Depends on the viscosity of the dosing medium.

(3) Volume flow depends on viscosity and primary pressure

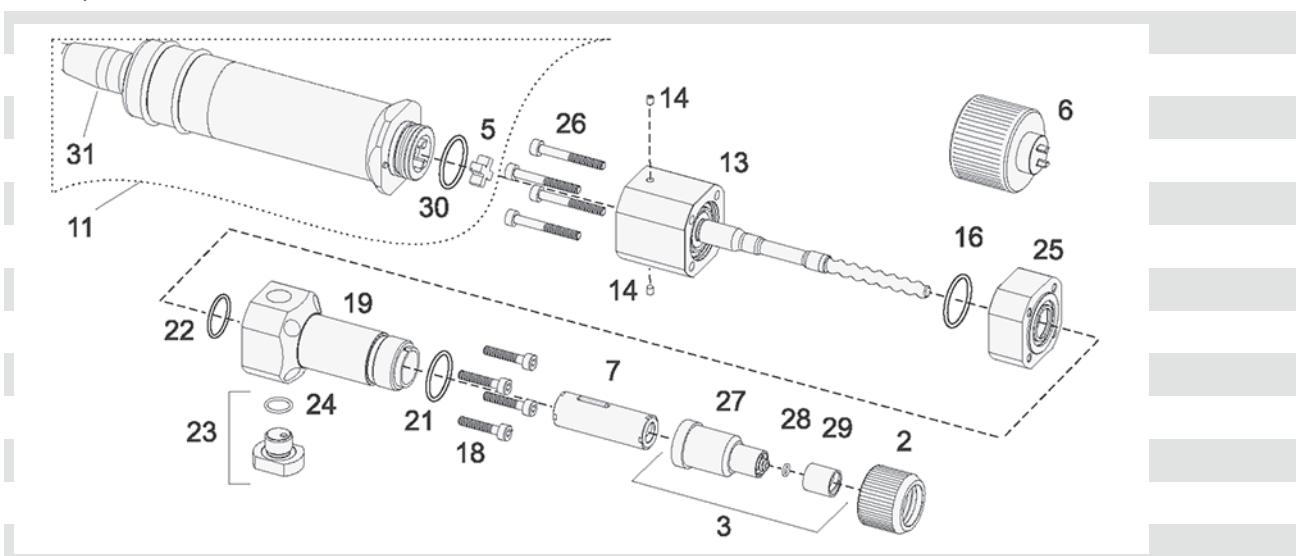
## Technical drawings



## Spare parts

Pos	Number	x	Description	Material
	PF20091		Dosing unit cpl. (without 11)	
2	PF20085		Union ring	Aluminium
3	PF20075		End piece with Luer Lock cpl.	POM
5	PF20050	x	Star-shaped coupling	Elastomer
6	PF20108		Assembly aid	Aluminium
7	PF20001	x	Stator cpl.	VisChem
11	PF20081	x	Drive unit cpl.	
13	PF20149		Bearing housing with rotor set cpl. (opt available in DC)	
14	PF20088		Set screw M3	A2
16	PF20007	x	O-ring Ø 16	FKM
18	PF20089		Allen screw M3	A2
19	PF20083		Dispenser housing	POM
21	PF20084	x	O-ring Ø 15	FKM
22	PF20011	x	O-ring Ø 13	FKM
23	PF20510		Bleed screw	POM
24	PF20513		O-ring Ø 8	FKM
25	PF20148		Sealing set with housing	
26	PF20090		Allen screw M3	A2
27	PF20076		End piece with Luer Lock cpl.	POM
28	PF20035	x	O-ring Ø 2.95	FKM
29	PF20021		Threaded sleeve Luer Lock	Aluminium
30	PF20041	x	O-ring Ø 17	NBR
31	PF20784		motor cable	

x = empfohlene Ersatz- und Verschleißteile



## eco-PEN600

Article number: PF20048



### Description

The new and innovative precision-volume-dispenser eco-PEN600 made by ViscoTec offers a wide range of applications for low to medium-viscosity dispensing.

### Theory of function

preeflow® eco-PEN is a rotating and perfectly pressure-tight displacement system. Self-sealing rotor/stator design. Conveyance action by medium displacement in the stator through controlled rotor rotation. Safe conveyance without any modification of the medium. With its suck back option, preeflow® ensures clean and controlled material or medium cut-off while preventing post-dripping effects.

### Application

On-the-dot dosage with maximum volumetric precision – dot-and-bead application with application speeds adaptable to track speeds – joint sealing technology.

### Range of uses

- Fats
- Colours
- Sealing compounds
- Adhesives
- Oils
- Silicones
- Abrasive media

### Technical features

- Genuine volumetric dosing
- Suck back effect
- Viscosity-independent dosing
- Easy to clean
- Primary pressure-autonomous dosing

- Controllable dosing flow
- Pressure-tight without valve
- Range of dosing pressures 16 - 20 bar

## Technical data

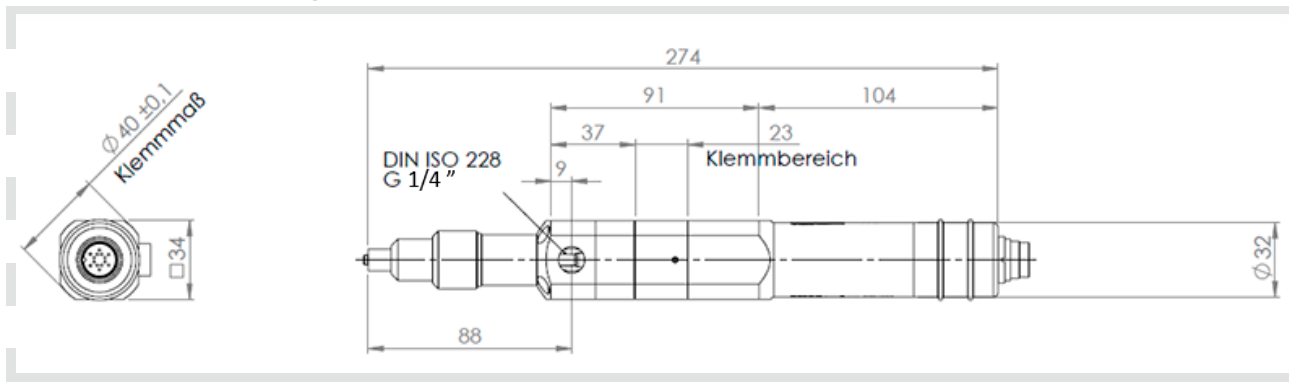
Dimensions:	Length, 274 mm, 34 x 34 mm, ø 40 mm
Weight:	650 g
Material infeed:	1/4" cylindrical whitworth pipe thread DIN/ISO 228
Material outfeed:	Luer lock with O ring, patented
Min. operating pressure:	0 bar, self-levelling-fluid
Max. operating pressure:	0 to 6 bar input pressure, non-self-levelling-fluid
Max. dosing pressure:	16 to 20 bar
Intrinsic tightness <sup>1</sup> :	approx. 2 bar (reference medium approx. 10mPas at 20°C)
Parts in contact with the media:	HD-POM / stainless steel
Seals:	High-molecular PE, VisChem
Static seals:	Viton O ring (medium) NBR (dust)
Motor:	18 - 24 V DC, incremental encoder, planetary gears
Operating conditions:	+10°C to +40°C, air pressure 1 bar
Medium temperature:	+10°C to +40°C
Storage environment:	dry & dust-free, -10°C - +40°C
Approx. dosing volume per revolution:	0.14 millilitres per revolution
Accuracy of dosing <sup>2</sup> :	± 1%
Repeat accuracy:	> 99%
Min. dosing quantity:	0.015 millilitres
Volume flow <sup>3</sup> :	1.4 to 16.0 millilitres per minute

(1) Max. dosing pressure and intrinsic tightness will decrease in direct proportion to a decrease in viscosity and increase in direct proportion to an increase in viscosity. Consultation with the manufacturer recommended.

(2) Volumetric dosing as absolute deviation in relation to one dispenser revolution. Depends on the viscosity of the dosing medium.

(3) Volume flow depends on viscosity and primary pressure.

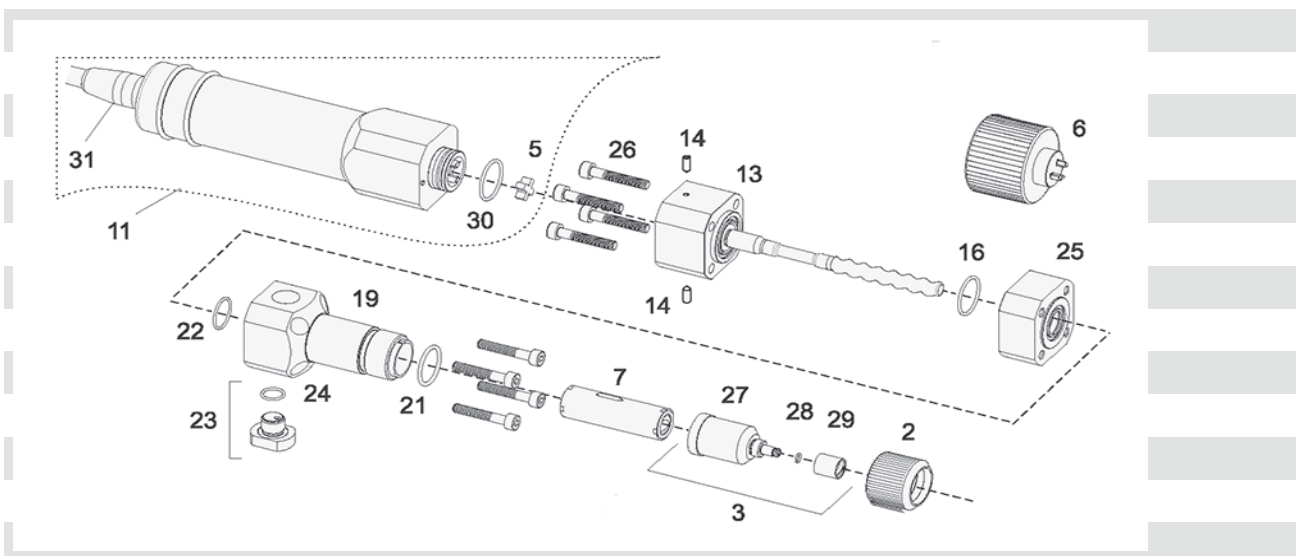
## Technical drawings



## Spare parts

Pos	Number	x	Description	Material
	PF20046		Dosing unit cpl. (without 11)	
2	PF20016		Union ring	Aluminium
3	PF20023		End piece with Luer Lock cpl.	POM
5	PF20050	x	Star-shaped coupling	Elastomer
6	PF20108		Assembly aid	Aluminium
7	PF20002	x	Stator cpl.	VisChem
11	PF20047	x	Drive unit cpl.	
13	PF20152		Bearing housing with rotor set cpl.	
14	PF20029		Set screw M3	A2
16	PF20007	x	O-ring Ø 16	FKM
18	PF20031		Allen screw M4	A2
19	PF20012		Dispenser housing	POM
21	PF20017	x	O-ring Ø 16	NBR
22	PF20011	x	O-ring Ø 13	FKM
23	PF20510		Bleed screw	POM
24	PF20513	x	O-ring Ø 8	FKM
25	PF20151		Sealing set with housing	
26	PF20031		Allen screw M4	A2
27	PF20020		End piece with Luer Lock	POM
28	PF20035	x	O-ring Ø 2.95	FKM
29	PF20021		Threaded sleeve Luer Lock	Aluminium
30	PF20041	x	O-ring Ø 17	NBR
31	PF20784		motor cable	

x = empfohlene Ersatz- und Verschleißteile



## eco-PEN700 3D

Article number: PF20723



### Description

The new and innovative precision-volume-dispenser eco-PEN700 made by ViscoTec offers a wide range of applications for low to medium-viscosity dispensing.

### Theory of function

preeflow® eco-PEN is a rotating and perfectly pressure-tight displacement system. Self-sealing rotor/stator design. Conveyance action by medium displacement in the stator through controlled rotor rotation. Safe conveyance without any modification of the medium. With its suck back option, preeflow® ensures clean and controlled material or medium cut-off while preventing post-dripping effects.

### Application

On-the-dot dosage with maximum volumetric precision – dot-and-bead application with application speeds adaptable to track speeds – joint sealing technology.

### Range of uses

- Fats
- Colours
- Sealing compounds
- Adhesives
- Oils
- Silicones
- Abrasive media

### Technical features

- Genuine volumetric dosing
- Suck back effect
- Viscosity-independent dosing
- Easy to clean
- Primary pressure-autonomous dosing
- Controllable dosing flow



- Pressure-tight without valve
- Range of dosing pressures 8 - 10 bar

## Technical data

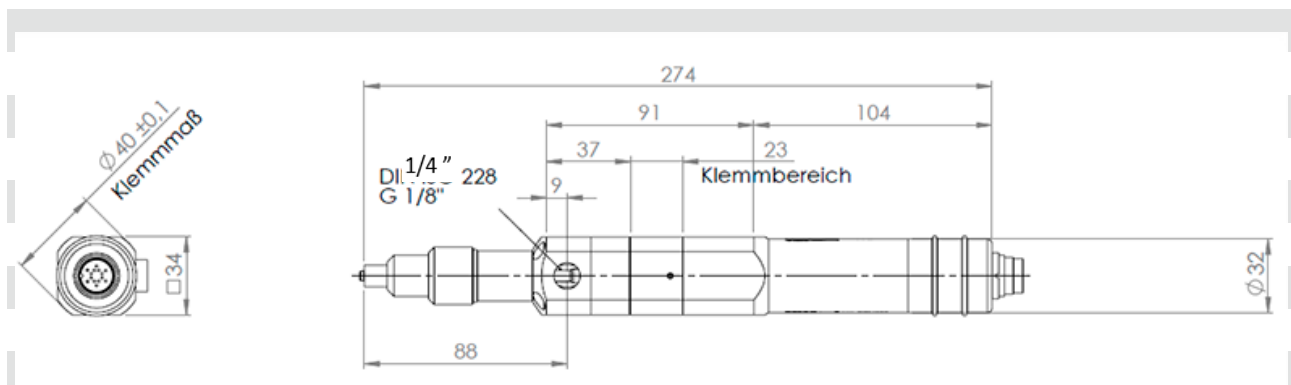
Dimensions:	Length, 274 mm, 34 x 34 mm, ø 40 mm
Weight:	650 g
Material infeed:	1/4" cylindrical Whitworth pipe thread DIN/ISO 228
Material outfeed:	Luer-Lock
Min. operating pressure:	0 bar, self-levelling-fluid
Max. operating pressure:	0 to 6 bar input pressure, non-self-levelling-fluid
Max. dosing pressure:	8 to 10 bar
Intrinsic tightness <sup>1</sup> :	approx. 2 bar (reference medium approx. 10mPas at 20°C)
Parts in contact with the media:	HD-POM / stainless steel
Seals:	High-molecular PE, VisChem
Static seals:	Viton O ring
Motor:	18 - 24 V DC, incremental encoder, planetary gears
Operating conditions:	+10°C to +40°C, air pressure 1 bar
Medium temperature:	+10°C to +40°C
Storage environment:	dry & dust-free, -10°C to +40°C
Approx. dosing volume per revolution:	0.53 Millilitres per revolution
Accuracy of dosing <sup>2</sup> :	± 1%
Repeat accuracy:	> 99%
Min. dosing quantity:	0.06 millilitres
Volume flow <sup>3</sup> :	5.3 to 60 millilitres per minute

(1) Max. dosing pressure and intrinsic tightness will decrease in direct proportion to a decrease in viscosity and increase in direct proportion to an increase in viscosity. Consultation with the manufacturer recommended.

(2) Volumetric dosing as absolute deviation in relation to one dispenser revolution. Depends on the viscosity of the dosing medium.

(3) Volume flow depends on viscosity and primary pressure

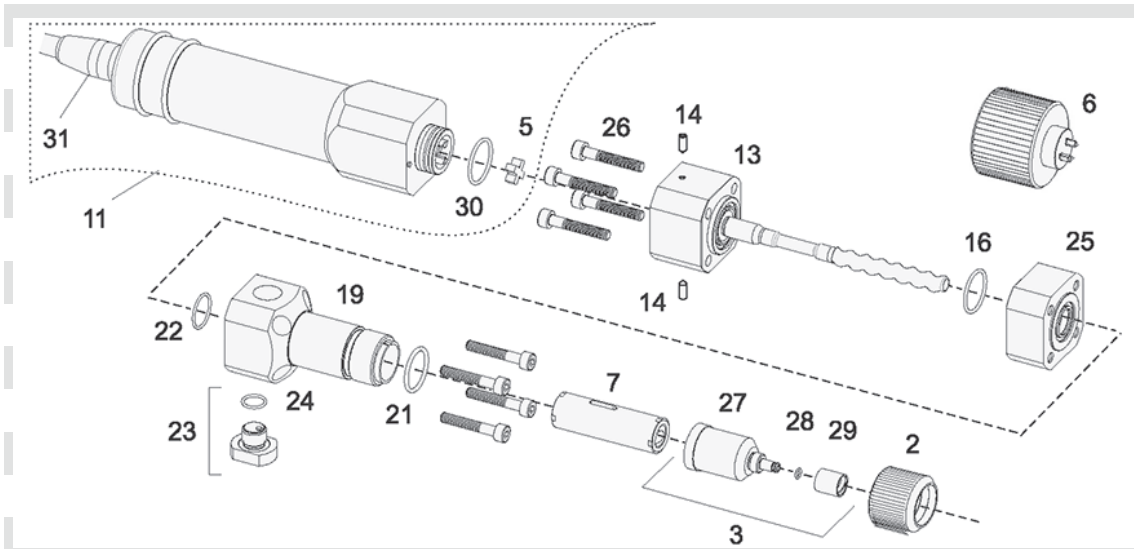
## Technical drawings



## Spare parts

Pos	Number	x	Description	Material
	PF20742		Dosing unit cpl. (without 11)	
2	PF20016		Union ring	Aluminium
3	PF20023		End piece with Luer Lock cpl.	POM
5	PF20050	x	Star-shaped coupling	Elastomer
6	PF20108		Assembly aid	Aluminium
7	PF20735	x	Stator cpl.	VisChem
11	PF20743	x	Drive unit cpl.	
13	PF20759		Bearing housing with rotor set cpl.	
14	PF20029		Set screw M3	A2
16	PF20007	x	O-ring Ø 16 FKM	
18	PF20031		Allen screw M4	A2
19	PF20012		Dispenser housing	POM
21	PF20017	x	O-ring Ø 16 NBR	
22	PF20011	x	O-ring Ø 13 FKM	
23	PF20510		Bleed screw	POM
24	PF20513		O-ring Ø 8	FKM
25	PF20151		Sealing set with housing	
26	PF20031		Allen screw M4	A2
27	PF20020		End piece with Luer-Lock	POM
28	PF20035		O-ring Ø 2.95	FKM
29	PF20021		Threaded sleeve Luer Lock	Aluminium
30	PF20041	x	O-ring Ø 17	NBR
31	PF20784		motor cable	

x = empfohlene Ersatz- und Verschleißteile



## eco-CONTROL EC200 2.0 (replaces EC200-K and EC200-B)

Article number: PF21793



### Product description

The preeflow® controllers simplify every dispensing process. They are perfectly matched for all dispensers within the eco-PEN, eco-DUO and eco-SPRAY series.

### Theory of function

The eco-CONTROL EC200 2.0 serves primarily to control and parameterize the preeflow® dispensers. In addition, pressure monitoring is carried out by the controller for a reliable process with precise dispensing results. The control unit can be easily integrated into fully automatic systems and meets all requirements of modern dispensing processes. The eco-CONTROL EC200 2.0 offers a compact solution with an integrated power supply unit. The control unit also offers options for pressure and temperature monitoring, 100 program memory locations and enables fast and clean storage of programs. The control unit can also be integrated with PLC systems.

### Functions/Programs

Measurements:	230 x 175 x 85 mm
Weight:	2900 g
Power supply voltage:	110 – 230 V AC, 50/60 Hz
Electricity consumption:	max. 100 VA
Voltage network adapter:	without
Entry:	0 – 7 bar
Operating modes:	Start-Stop / quantity
Display:	7" TFT with capacitive touch
Motor control:	via programs, external via analog signal 0-10 V oder 4-20 mA
Connector for level sensor:	yes
External start:	24 V via terminal block
Program:	internal memory for max. 100 dispensing programs
Interface:	Digital I/O, analog inputs, RS232, USB, (Ethernet)

## eco-CONTROL EC200-K

**Attention this product is no longer available.**



**discontinued**

### Product description

The new and innovative eco-CONTROL EC200-K, made by ViscoTec offers a wide range of applications for the precision volume dosimeter of the eco-PEN series.

### Theory of function

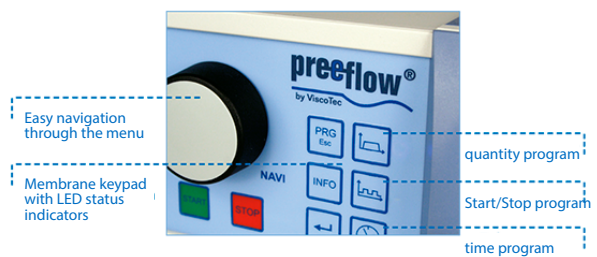
Microprocessor-controlled. User-friendly. Without submenus but supported by graphics. Monitoring of the preset primary pressure and digital display in Bar or Psi. Monitoring of fill level and motor current alarm messages.

Easy connection via I/O port to PLC of external signals for automated line control.

Supports the storage of a wide range of dosing programs.

### Functions/Programs

- Quantity program
- Start/Stop program
- Time program
- Teach-in-function (external or via GPS)
- Calibration
- Desired-volume display in Grams or Millilitres
- Dosage flow rate display in Millilitres per Minute or Grams per Minute
- Empty signal for containers (internal, external)
- Storage of PDM-supported dosing programs
- Desired-pressure and actual-pressure display in Bar or Psi
- Digital clock



Easy navigation through the menu

Membrane keypad with LED status indicators

quantity program

Start/Stop program

time program



Regler für Materialvordruck  
 Digital überwacht  
 Einheiten psi und bar wählbar

Valve connection 1 and 2  
 Connection of the sensor Drain signal  
 Connection Replacement pedal  
 Terminal strips for interfaces  
 RS232 interfaces

SD card, max. 24  
 Dosing programs with Microsoft  
 Writable and readable operating system

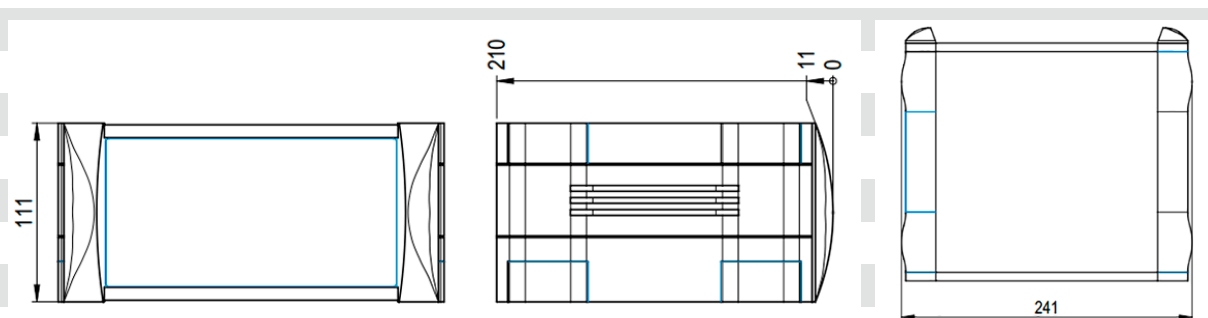
## Technical features

Control of two precision volume dosimeters of the eco-PEN series is possible with an additional SD-card.

## Technical data

Dimensions (HxWxD):	100 x 240 x 260 mm
Weight:	Approx. 1,300 Grams
Voltage:	24 V DC, ac adapter included in delivery
AC adapter voltage:	230 V / 50 / 60 Hz
Power rating:	100 VA / 2,7 A
Start:	Key, foot switch
External start/stop:	24-V pulse, 10-mA terminal strip; 0 to 1.5V low; 12 to 24V high
On/off switch:	yes
Interface:	RS232
Compressed-air monitoring:	0 to 7 Bar (0 to 100 Psi)
External memory:	MM C/SD-Card, 64 MB min; 24 dosing programs max;
Operating conditions:	+10°C to +40°C, air pressure 1 bar
Media temperature range:	+10°C to +40°C
Storage environment:	Dry & dust free; -10°C to +40°C
CE certified:	yes

## Technical drawings



## eco-CONTROL EC200-B

**Attention this product is no longer available.**



**discontinued**

### Product description

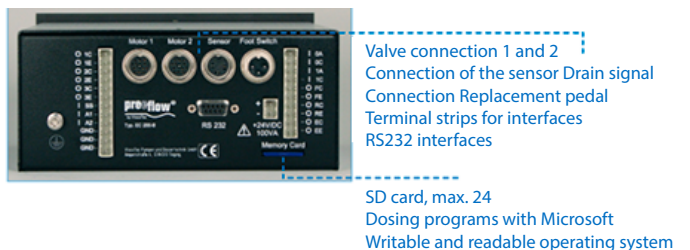
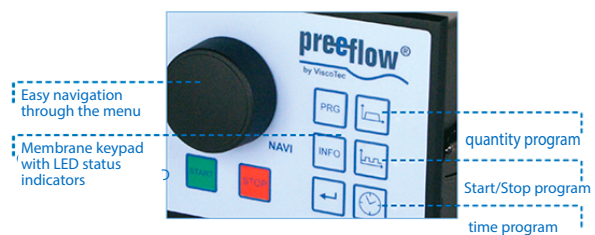
The new and innovative eco-CONTROL EC200-B, made by ViscoTec offers a wide range of applications for the precision volume dosimeter of the eco-PEN series.

### Theory of function

Microprocessor-controlled. User-friendly. Without submenus but supported by graphics. Easy connection via I/O port to PLC of external signals for automated line control. Supports the storage of a wide range of dosing programs. Monitoring of the preset primary pressure (with pressure sensor kit only) and digital display in Bar or Psi. Monitoring of fill level and motor current alarm messages (RS232 interface included).

### Functions/Programs

- Quantity program
- Start/Stop program
- Time program
- Teach-in function (external or via GPS)
- Calibration
- Desired-volume display in Grams or Millilitres
- Dosage flow rate display in Millilitres per Minute or Grams per Minute
- Empty signal for containers (internal, external)
- Storage of PDM-supported dosing programs
- Desired-pressure and actual-pressure display in Bar or Psi
- Digital clock



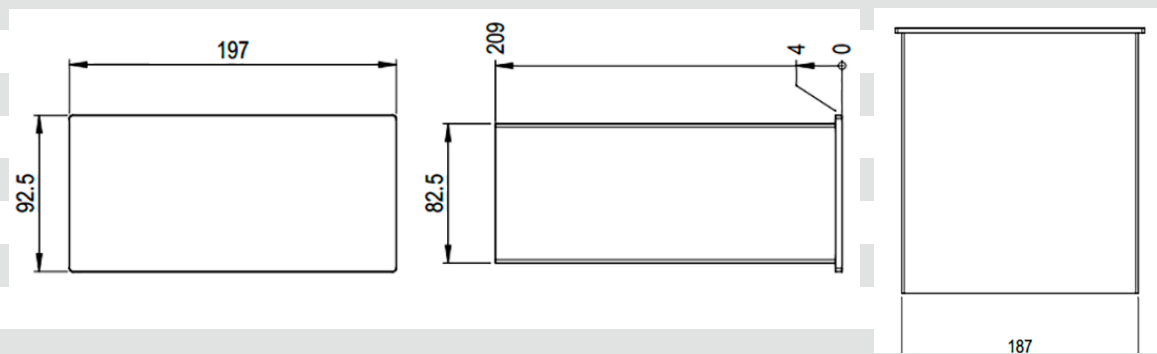
## Technical features

Control of two precision volume dosimeters of the eco-PEN series possible with a single accessory card.

## Technical data

Dimensions (HxWxD):	88 x 240 x 197 mm
Weight:	980 g
Voltage:	24 V DC
AC adapter voltage:	N/A (article no. 20163)
Power rating:	100 VA / 2.7 A
Start:	Key, foot switch
External start/stop:	24-V pulse, 10-mA terminal strip; 0 to 1.5V low; 12 to 24V high
On/off switch:	No
Interface:	RS232
Compressed-air monitoring:	No, available on request
External memory:	MM C/SD-Card, 64 MB min; 24 dosing programs max;
Operating conditions:	+10°C to +40°C, air pressure 1 bar
Media temperature range:	+10°C to +40°C
Storage environment:	Dry & dust free -10°C to +40°C
CE certified:	Yes

## Technical drawings





## Speed-Control Plug'n'Dose Version AM

Article number: PF20462

### Product description

The preeflow Speed Control 'plug'n'dose' AM control unit has been developed specifically for applications in automation

### Operating principle

Microprocessor-controlled. External signals such as the dosing speed and dosing time of a superior control unit, for example an SPS, are processed further and control the eco-PEN's dosing process.

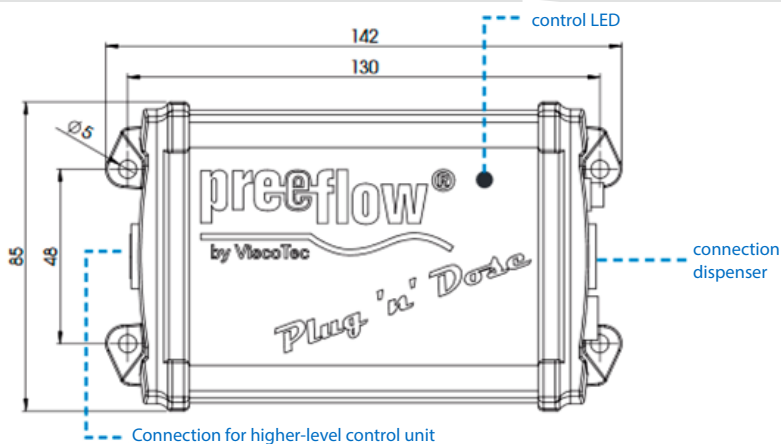
The integrated motor monitoring as overload protection for the dispenser can be processed as an error message.



### Technical data

Dimensions (HxWxD):	142 x 85 x 50mm
Mounting:	4 holes / 5 mm, hole interval 130 x 48 mm
Weight:	Approx. 260 g
Supply voltage:	24 V DC
Mains adapter:	Not included
Consumption / rating:	100 VA / 2.7 A
Operating conditions:	+10°C to +40°C (non-condensing), air pressure 1 bar
Storage conditions:	Dry / dust-free, -10°C to +40°C

### Technical Drawings

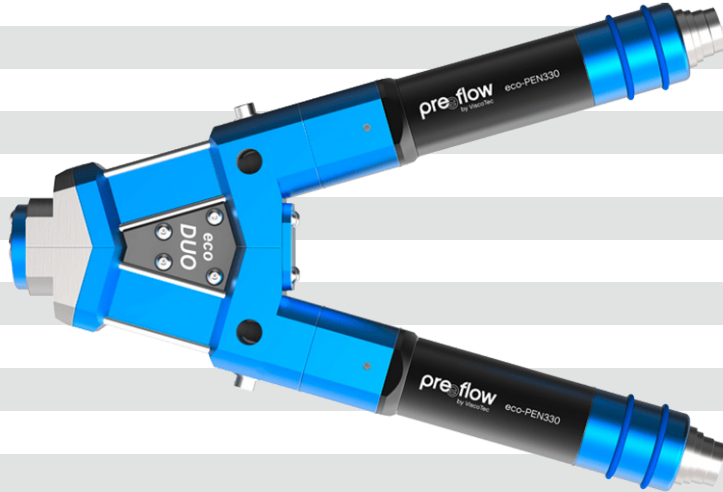


## eco-DUO330

Article number: PF21529

### Description

The new and innovative 2-component precision-volume-dispenser eco-DUO 330 made by ViscoTec offers a wide range of applications for the 2-component dispensing.



### Functional Theory

preeflow® eco-DUO is a rotating and perfectly pressure-tight displacement system. Self-sealing rotor/stator design. Conveyance action by medium displacement in the stator through controlled rotor movement.

Safe conveyance without any modification of the medium. With its suck back option, preeflow® ensures clean and controlled material or medium cut-off while preventing post-dripping effects.

### Application

On-the-dot dosage with maximum volumetric precision; bead application with application speeds adaptable to track speeds; potting technology

#### Range of uses

- electronic components
- semiconductors
- LCD/LED/OLED
- photovoltaics
- medical technology
- biological chemistry
- laboratory
- optics and photonics
- SMD/SMT

#### Technical features

- genuine volumetric dosing
- suck back effect
- viscosity-independent dosing
- easy to clean
- primary pressure-independent dosing
- controllable dosing flow
- pressure-tight no valve
- dosing pressures up to 40 bar

## Technical data

Weight:	1230g (without drive units)
Material infeed:	1/8" cylindrical whitworth pipe thread DIN/ISO 228
Material outfeed:	static mixer with bayonet socket
Min. operating pressure:	0 bar, self-levelling-fluid
Max. operating pressure:	0 to 20 bar input pressure, non-self-levelling-fluid
Max. dosing pressure <sup>4</sup> :	up to 40 bar
Intrinsic tightness <sup>1</sup> :	approx. 2 bar (reference medium approx. 1000 mPas at 20°C)
Parts in contact with the media:	aluminium, anodized
Seals:	High-molecular PE, VisChem
Static seals:	Viton O ring
Motor:	18 - 24 V DC, incremental encoder, planetary gears
Operating conditions:	+10°C to +40°C (Ta.), air pressure 1 bar
Medium temperature:	+10°C to +40°C
Approx. dosing volume per revolution:	0.028 ml/rev. (each dispenser)
Accuracy of dosing <sup>2</sup> :	± 1%.
Repeat accuracy:	> 99%.
Mixture ratio:	1:1 to 10:1
Min. dosing quantity:	0.005 ml
Volume flow <sup>3</sup> :	0.1 to 6.6 ml/min (at 1:1)

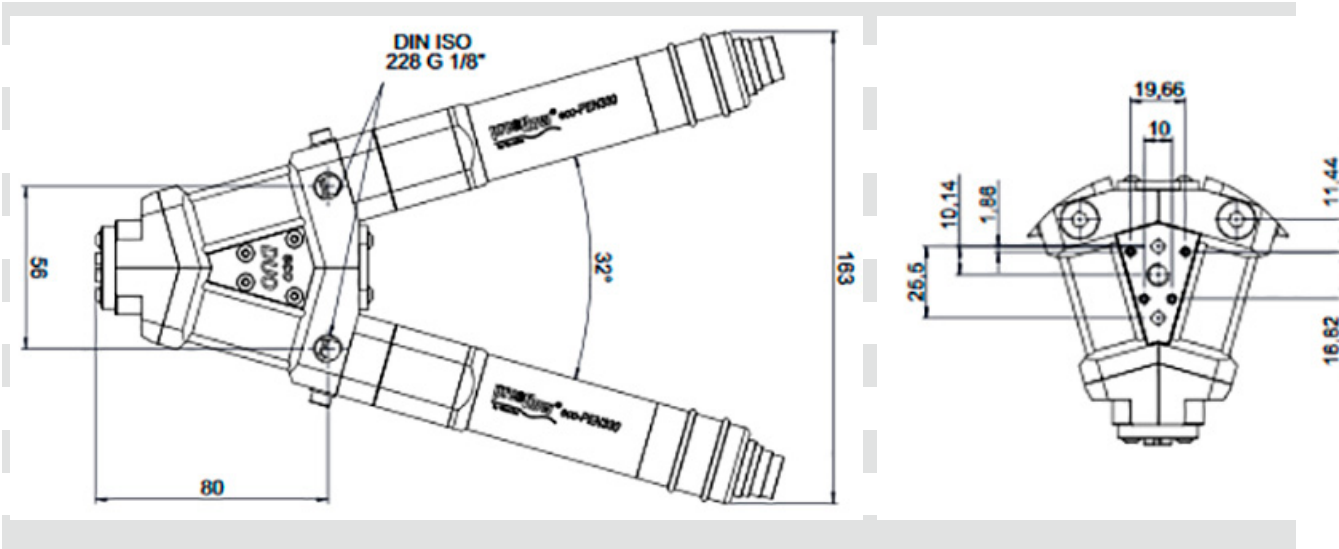
(1) Max. dosing pressure and intrinsic tightness will decrease in direct proportion to a decrease in viscosity and increase in direct proportion to an increase in viscosity. Consultation with the manufacturer recommended.

(2) Volumetric dosing as absolute deviation in relation to one dispenser revolution. Depends on the viscosity of the dosing medium.

(3) Volume flow depends on viscosity, primary pressure and the mixing ratio.

(4) Depends on the static mixer

## Technical drawings

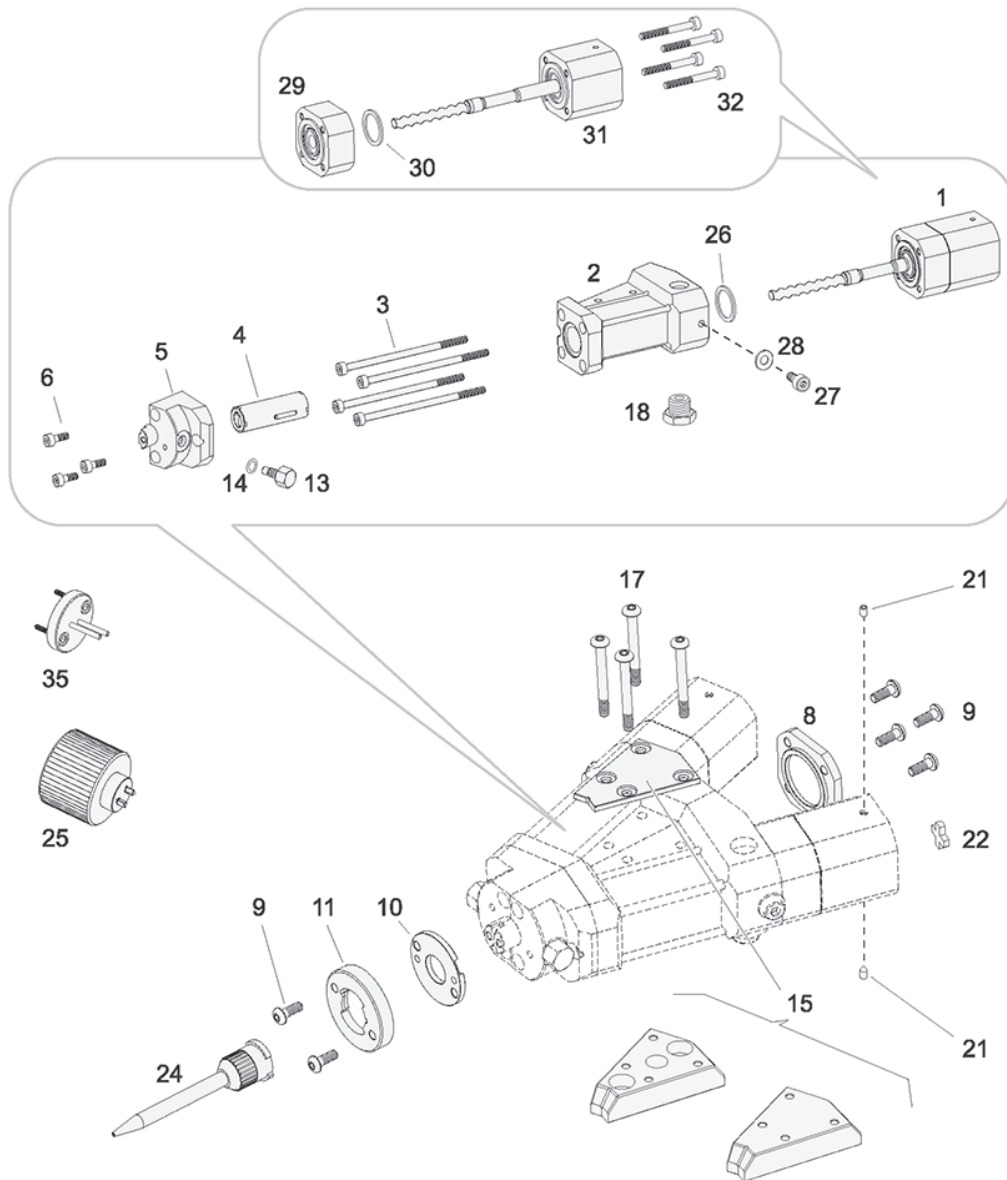


## Spare parts

Pos	Number	x	Description	Norm	Material
	PF21529		eco-DUO330 cpl. with drive unit		
	PF21547	2	Drive unit cpl.		
	PF20784	2	motor cable		
	PF21530	1	mixing head variant		
1	PF21531	2	Rotor strand - seal housing		
2	PF20360	2	pump housing		AlMgSi 1
3	PF20362	8	Allen screw M3	DIN 912	A2
4	PF21483	x 2	Stator cpl.		VisChem
5	PF20361	2	End piece		AlMgSi 1
6	PF20367	6	Allen screw M3	DIN 912	A2
8	PF20363	1	Top centring cover		AlMgSi 1
9	PF20487	6	Oval-head screw M3	ISO 7380	A2
10	PF20364	1	Bottom eccentric ring		AlMgSi 1
11	PF20365	1	Locking plate		AlMgSi 1
13	PF20369	2	Adapter for pressure sensor		POM-C
14	PF20373	x 2	O-ring		Viton
15	PF20656	1	Fastening set	AlMgSi 1	
17	PF20374	4	Oval-head screw M3	ISO 7380	A2
18	PF20391	2	Screw plug G 1/8" with chambered o-ring		
21	PF20088	4	Set screw M3		A2
22	PF20050	x 2	Star-shaped coupling		Elastomer
24	PF21593	1	Mixer		
25	PF20108	1	Assembly aid		Aluminium
26	PF20011	x 2	O-ring		FKM
27	PF20026	x 2	Allen screw M4	DIN 912	A2
28	PF20027	x 2	Washer A 4.3	DIN 125	PA 6
29	PF20485		Gasket Kit with housing		
30	PF20007	x 2	O-ring		FKM
31	PF21565	2	Bearing housing with rotor set cpl.		
32	PF20090	8	Allen screw M3	DIN 912	A2
33	PF20204	1	Electronic screwdriver size 2.5 mm		
34	PF20491	1	Electronic screwdriver size 2.0 mm		
35	PF20691	1	Calibrating adapter		
37	PF20698	2	Sensor dosing pressure monitoring		

x = recommended spare and wear parts

## Spare parts



## eco-DUO450

**Article number: PF20639**

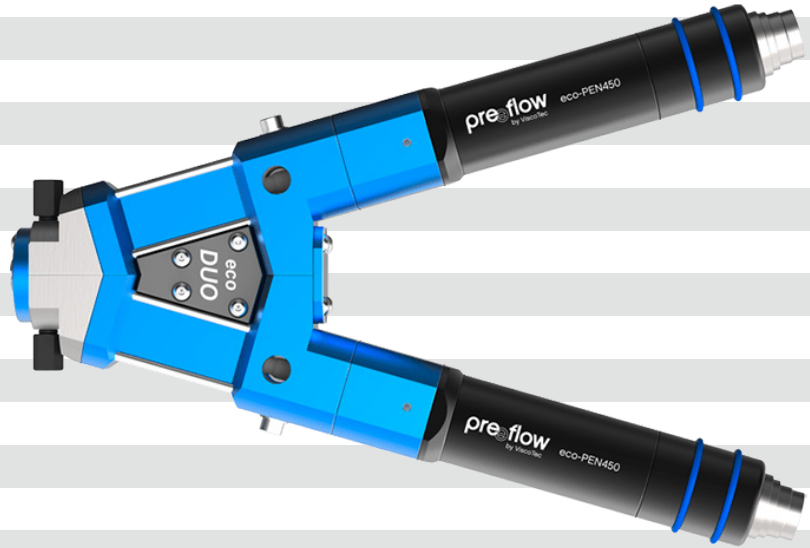
### Description

The new and innovative 2-K-precision-volume-dispenser eco-DUO 450 made by ViscoTec offers a wide range of applications for the 2-component dispensing.

### Functional theory

preflow® eco-DUO is a rotating and perfectly pressure-tight displacement system. Self-sealing rotor/stator design. Conveyance action by medium displacement in the stator through controlled rotor movement.

Safe conveyance without any modification of the medium. With its suck back option, preflow® ensures clean and controlled material or medium cut-off while preventing post-dripping effects.



### Application

On-the-dot dosage with maximum volumetric precision – dot-and-bead application with application speeds adaptable to track speeds – joint sealing technology.

#### Range of uses

- electronic packaging
- semiconductor
- LCD/LED/OLED
- photovoltaic
- medica
- biological chemistry
- laboratory
- optics and photonics
- SMD/SMT

#### Technical features

- genuine volumetric dosing
- suck back effect
- viscosity-independent dosing
- easy to clean
- primary pressure-independent dosing
- controllable dosing flow
- pressure-tight no valve
- range of dosing pressures up to 40 bar

## Technical data

Weight:	1230g (without drive units)
Material infeed:	1/8" cylindrical whitworth pipe thread DIN/ISO 228
Material outfeed:	static mixer with bayonet socket
Min. operating pressure:	0 bar, self-levelling-fluid
Max. operating pressure:	0 to 20 bar input pressure, non-self-levelling-fluid
Max. dosing pressure <sup>4</sup> :	up to 40 bar
Intrinsic tightness <sup>1</sup> :	approx. 2 bar (reference medium approx. 10mPas at 20°C)
Parts in contact with the media:	aluminum, anodized
Seals:	High-molecular PE, VisChem
Static seals:	Viton O ring
Motor:	18 - 24 V DC, incremental encoder, planetary gears
Operating conditions:	+10°C to +40°C, air pressure 1 bar
Medium temperature:	+10°C to +40°C
Approx. dosing volume per revolution:	0.05 millilitres per revolution
Accuracy of dosing <sup>2</sup> :	± 1%.
Repeat accuracy:	> 99%.
Mixture ratio:	1:1 to 10:1
Min. dosing quantity:	0.01 millilitres
Volume flow <sup>3</sup> :	0.2 to 12 millilitres per minute

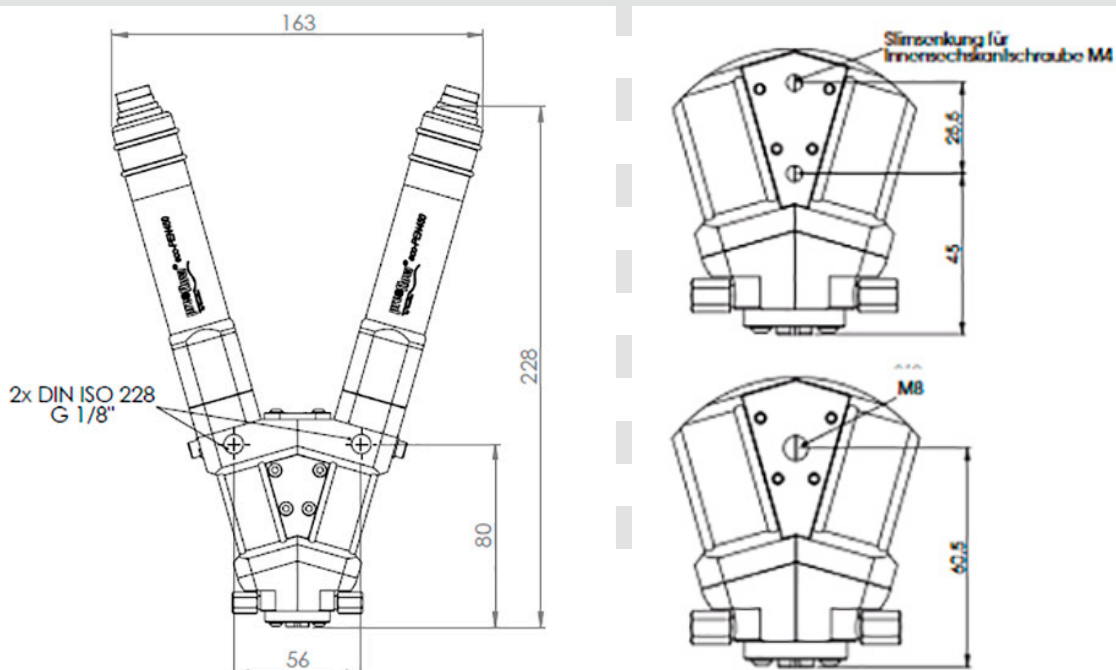
(1) Max. dosing pressure and intrinsic tightness will decrease in direct proportion to a decrease in viscosity and increase in direct proportion to an increase in viscosity. Consultation with the manufacturer recommended

(2) Volumetric dosing as absolute deviation in relation to one dispenser revolution. Depends on the viscosity of the dosing medium

(3) Volume flow depends on viscosity, primary pressure and the mixing ratio

(4) depends on the static mixer

## Technical drawings



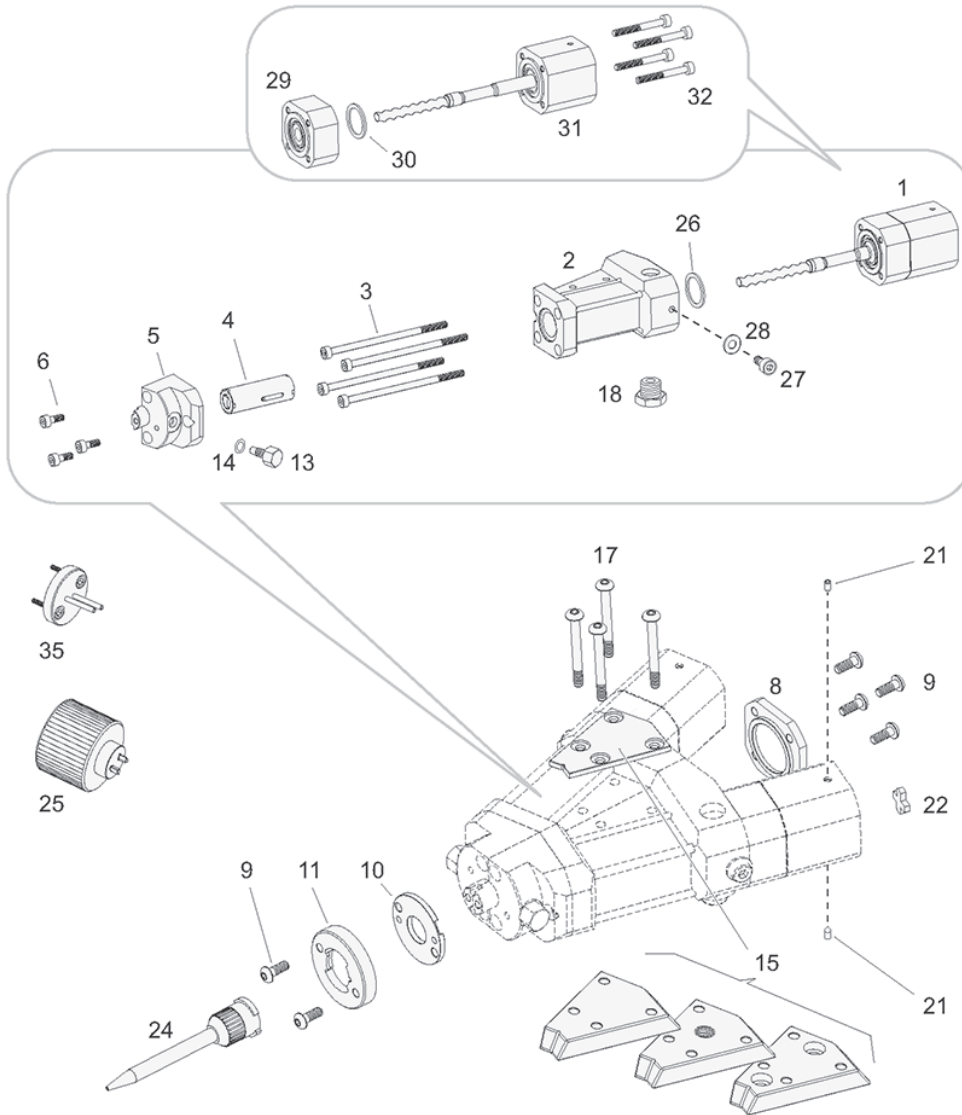


## Spare parts

Pos	Number	x	Description	Norm	Material
	PF20639		eco-DUO450 komplett, mit Antrieb		
	PF20081	2	Drive unit cpl.		
	PF20784	2	motor cable		
	PF20372	1	mixing head variant		
1	PF20358	2	Rotor strand - seal housing		
2	PF20360	2	pump housing		AlMgSi 1
3	PF20362	8	Allen screw M3	DIN 912	A2
4	PF20001	x 2	Stator cpl.		VisChem
5	PF20361	2	End piece		AlMgSi 1
6	PF20367	6	Allen screw M3	DIN 912	A2
8	PF20363	1	Top centring cover		AlMgSi 1
9	PF20487	6	Oval-head screw M3	ISO 7380	A2
10	PF20364	1	Bottom eccentric ring		AlMgSi 1
11	PF20365	1	Locking plate		AlMgSi 1
13	PF20369	2	Adapter for pressure sensor		POM-C
14	PF20373	x 2	O-ring		Viton
15	PF20656	1	Fastening set		AlMgSi 1
17	PF20374	4	Oval-head screw M3	ISO 7380	A2
18	PF20391	2	Screw plug G 1/8" with chambered o-ring		
21	PF20088	4	Set screw M3		A2
22	PF20050	x 2	Star-shaped coupling		Elastomer
24	PF20638	1	Mixer (3-piece set w. protective cap)		
25	PF20108	1	Assembly aid		Aluminium
26	PF20011	x 2	O-ring Ø 13		FKM
27	PF20026	x 2	Allen screw M4	DIN 912	A2
28	PF20027	x 2	Washer A 4.3	125	PA 6
29	PF20485	2	Gasket Kit with housing		
30	PF20007	x 2	O-ring		FKM
31	PF20149	2	Bearing housing with rotor set cpl.		
32	PF20090	8	Allen screw M3	DIN 912	A2
33	PF20204	1	Electronic screwdriver size 2.5 mm		
34	PF20491	1	Electronic screwdriver size 2.0 mm		
35	PF20691	1	Calibrating adapter		
37	PF20698	2	Sensor dosing pressure monitoring		

x = recommended spare and wear parts

## Spare parts

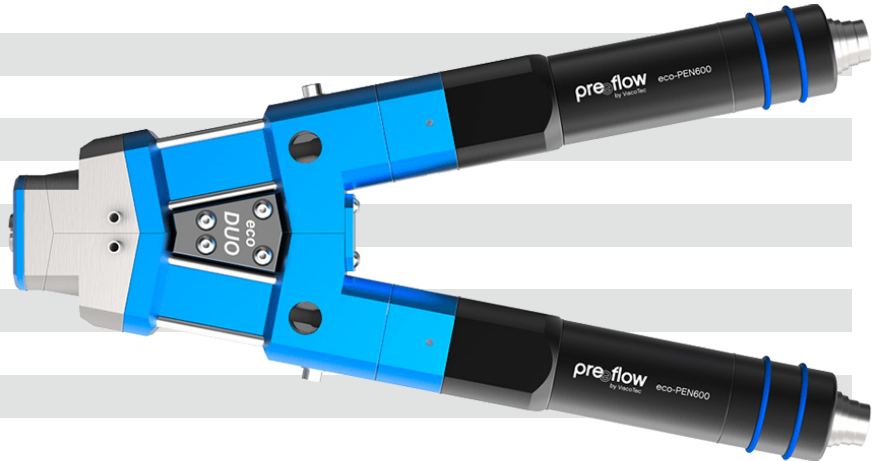


## eco-DUO600

Article number: PF21175

### Description

The new and innovative 2-K-precision-volume-dispenser eco-DUO600 made by ViscoTec offers a wide range of applications for the 2-component dispensing. Through the new integrated pressure sensors, a safety system shutdown is guaranteed at all times.



### Functional theory

preeflow® eco-DUO is a rotating and perfectly pressure-tight displacement system. Self-sealing rotor/stator design. Conveyance action by medium displacement in the stator through controlled rotor movement. Safe conveyance without any alteration of the medium. With its suck back option, preeflow® ensures clean and controlled material or medium cut-off while preventing post-dripping effects.

### Application

On-the-dot dosage with maximum volumetric precision – dot-and-bead application with application speeds adaptable to track speeds – joint sealing technology.

#### Range of uses

- electronic packaging
- semiconductor
- LCD/LED/OLED
- photovoltaic
- medical
- biological chemistry
- laboratory
- optics and photonics
- SMD/SMT

#### Technical features

- genuine volumetric dosing
- suck back effect
- viscosity-independent dosing
- easy to clean
- primary pressure-independent dosing
- controllable dosing flow
- pressure-tight no valve
- range of dosing pressures up to 40 bar

## Technical data

Weight:	1880g (without drive units)
Material infeed:	1/4" cylindrical whithworth pipe thread DIN/ISO 228
Material outfeed:	static mixer with bayonet socket
Max. operating pressure:	0 – 20 bar input pressure, non-self-levelling fluid
Max. dosing pressure <sup>4</sup> :	up to 40 bar
Parts in contact with the media:	aluminium, anodized
Seals:	High-molecular PE, VisChem
Static seals:	Viton O ring
Motor:	18 to 24 V DC, incremental encoder, planetary gear
Operating conditions:	+10°C to +40°C (Ta.), air pressure 1 bar
Medium temperature:	+10°C to +40°C
Approx. dosing volume per revolution:	0.140 millilitres per revolution
Accuracy of dosing <sup>2</sup> :	± 1%.
Repeat accuracy:	> 99%.
Mixture ratio:	1:1 to 10:1
Min. dosing quantity:	0.030 millilitres
Volume flow:	0.6 to 32.0 ml/min

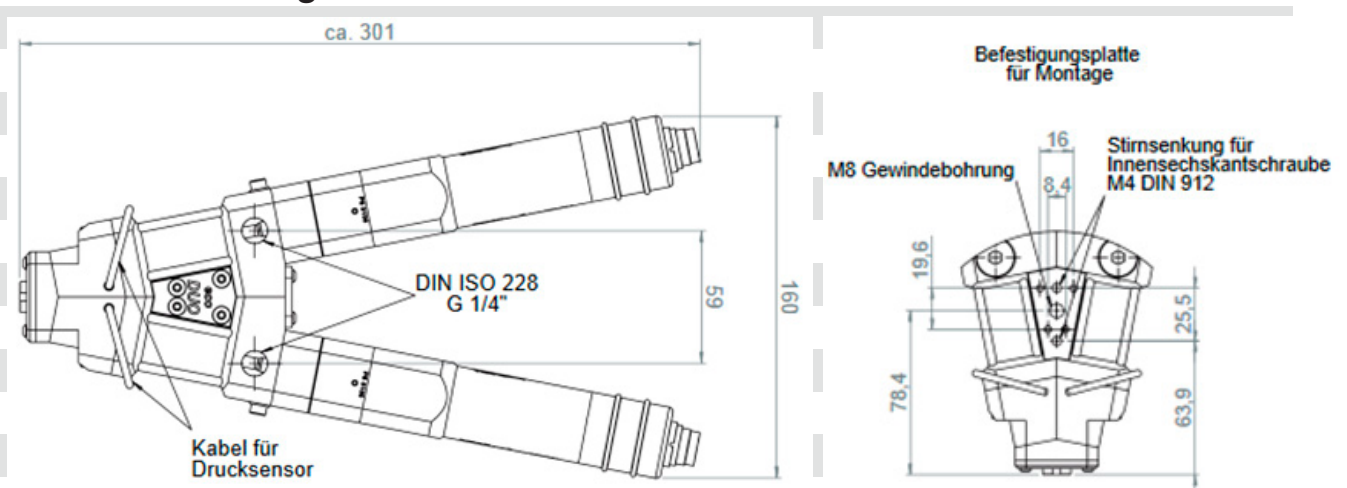
(1) Max. dosing pressure and intrinsic tightness will decrease in direct proportion to a decrease in viscosity and increase in direct proportion to an increase in viscosity. Consultation with the manufacturer recommended

(2) Volumetric dosing as absolute deviation in relation to one dispenser revolution. Depends on the viscosity of the dosing medium

(3) Volume flow depends on viscosity, primary pressure and the mixing ratio

(4) depends on the static mixer

## Technical drawings

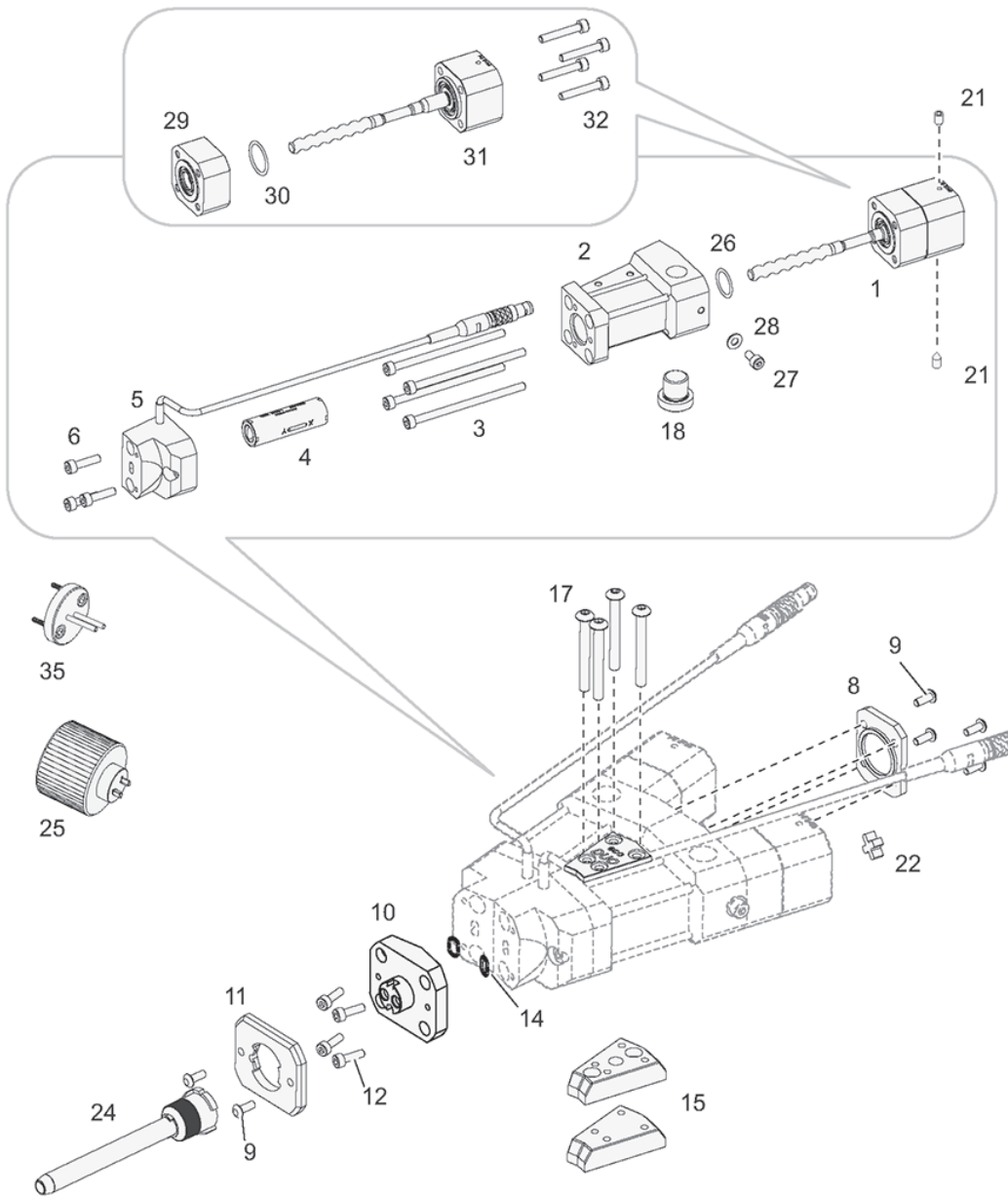


## Spare parts

Pos	Number	x	Anz.	Description	Material
	PF21175			eco-DUO600 cpl. with drive unit	
	PF21168			eco-DUO600 without drive	
	PF20784			motor cable	
	PF20047			Drive unit eco-PEN600 cpl.	
1	PF21152		2	Rotor strand - seal housing	
2	PF21153		2	pump housing	Alu
3	PF21156		8	Allen screw M4	A2
4	PF20002	x	2	Stator cpl.	VisChem
5A	PF21165		1	End piece, left with pressure sensor	
5B	PF21166		1	End piece, right with pressure sensor	
6	PF20124		6	Allen screw M4	A2
8	PF21155		1	Top centring cover	Alu
9	PF20487		6	Oval-head screw M3	A2
10	PF21163		1	Mix housing	Alu
11	PF21164		1	Locking plate	Alu
12	PF20390		4	Allen screw M4	A2
13	PF20047		2	Drive unit cpl.	
	PF20784		2	motor	
14	PF21167	x	2	O-ring or form seal	FFKM
15	PF21172		1	Fastening set	
17	PF21147		4	Oval-head screw M3	A2
18	PF21159		2	Screw plug G 1/4"	1.4301
21	PF20088		4	Set screw M3	A2
22	PF20050	x	2	Star-shaped coupling	Elastomer
24	PF21181		1	Mixer (3-piece)	
25	PF20108		1	Assembly aid	Alu
26	PF20011	x	2	O-ring Ø 13	FKM
27	PF20026	x	2	Allen screw M4	A2
28	PF20027	x	2	Washer A 4.3	PA 6
29	PF21197		2	Gasket Kit with housing	
30	PF20007	x	2	O-ring Ø 16	FKM
31	PF20152		2	Bearing housing with rotor set cpl.	
32	PF20031		8	Allen screw M4	A2
35	PF21180		1	Calibrating adapter	

x = recommended spare and wear parts

## Spare parts



## eco-SPRAY



### Functional theory

The new precision volume dispenser eco-SPRAY made by ViscoTec offers a wide range of applications for low to high viscosity spray media. The preeflow® eco-SPRAY guarantees a volumetric spray application based on the endless piston principle. The base of this new microsyringing technology is still our proven rotor/stator technology. Due to a defined rotary motion of the rotor the medium in the stator is volumetrically replaced and conveyance is created. Thus a determined amount of medium is process controlled and directed to the special low flow spray chamber.

The precise nebulization and spraying can take place continuously or punctually. The revolutionary combination of the endless piston principle and the low flow spraying chamber guarantees perfect spraying of low to highly viscous media with high edge definition and lowest possible overspray.

### Applications

- Dosing
- Coating
- Micronebulization
- Greasing
- Marking
- Many more...

- Independent regulation of media flow rate and atomizer air
- High transfer efficiency

### Media

- Grease
- Ink
- Activators/Primer
- Abrasive media

### Advantages

- Constant amount/area
- Consistent spray-image
- Uniform coating
- Little overspray/high edge definition
- Defined volume per rotation
- High chemical resistance
- High Bracing
- Controllable round spray
- From dot to endless spraying
- Low maintenance system

- Adhesives
- Silicones
- Highly filled Media
- Many more..

### Technical features

- Spraying of defined quantity
- Optional heating
- Viscosity independent spraying
- Easy to clean



- Regardless of primary pressure
- Controllable spray area
- Pressure-tight without valve
- Low to high viscosity media

## Technical data

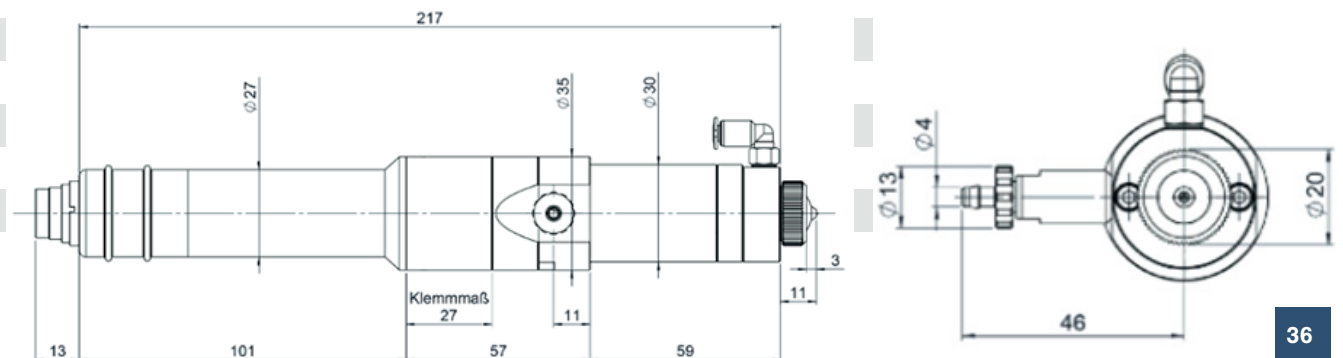
Dimensions:	Length 228 mm ,ø 35 mm
Weight:	approx. 640 g
Material infeed:	1/8" cylindrical whitworth pipe thread DIN/ISO 228
Parts with medium contact:	HD-POM/Stainless Steel/PEEK
Min. operating pressure:	0 bar, self-levelling fluid
Max. operating pressure:	0 to 6 bar input pressure, non-self-levelling fluid
Intrinsic tightness <sup>1</sup> :	Approx. 2 bar (reference medium approx. 10 mPas at 20° C)
Seals:	High-molecular PE, VisChem
Motor:	18 to 24 V/DC, incremental encoder, planetary gears
Switching frequency:	Over 100 cycles/min
Operating conditions:	+10° C to +40° C, air pressure 1 bar
Medium temperature:	+10° C to +40° C (optional with heating)
Medium viscosity:	Low to high viscosity media
Min. dosing quantity:	50 µl
Volume flow <sup>2</sup> :	0.5 to 6.0 ml/min
Diameter:	0.2 mm, 0.3 mm, 0.5 mm
Spraying accuracy <sup>3</sup> :	Amount of spraying ± 1%
Repeatability:	> 99%.
Atomizer air:	0.1 to 6 bar
Atomizer supply:	Hose connector external diameter 4 mm (connection to the process M5)
Spray image:	Round spray (adjustable)
Spraying angle:	15 to 30°.

(1) max. dosing pressure and intrinsic tightness will decrease in direct proportion to a decrease in viscosity and increase in direct proportion to an increase in viscosity. Consultation with the manufacturer recommended.

(2) Volume flow depends on viscosity and primary pressure.

(3) Volumetric dosing as absolute deviation in relation to one dispenser revolution. Depends on the viscosity of the dosing medium.

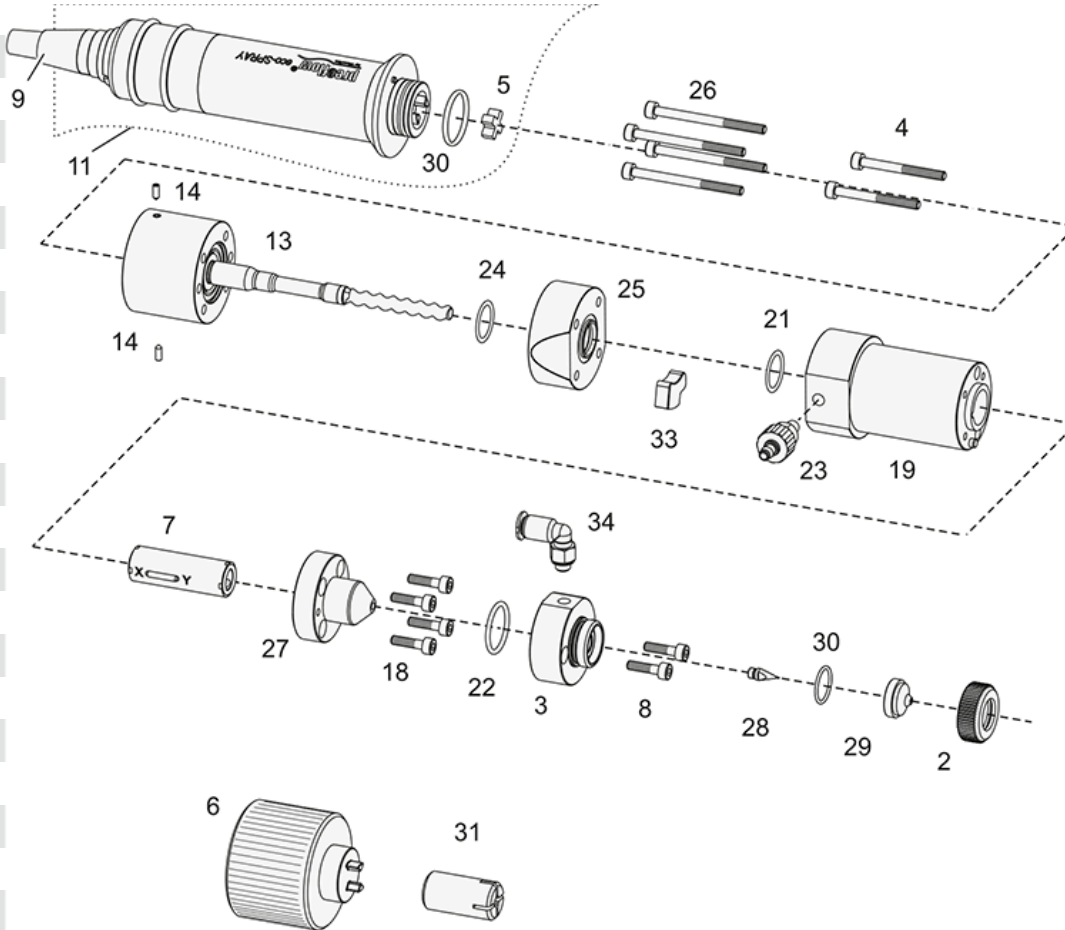
## Technical Drawings



## Spare parts

Pos	Number	x	Description	Material
	PF21500		Combi package complete consisting of Art.-Nr.: 21448, 20120, 21499	
	PF21448		Dispenser eco-SPRAY	
	PF20120		eco-CONTROL EC200-K table housing	
	PF21499		Control unit eco-CONTROL SC1200	
	PF21447		Dosing unit eco-SPRAY cpl.	
2	PF21374		Union ring	A2
3	PF21373		Air housing	A2
4	PF20250		Allen screw M3	
5	PF20050	x	Star-shaped coupling	Elastomer
6	PF20108		Assembly aid	Aluminium
7	PF20001	x	Stator cpl.	VisChem
8	PF20828		Allen screw M3	
9	PF20784		motor cable	
11	PF21449	x	Drive unit cpl.	
13	PF21507	x	Bearing housing with rotor set	
14	PF20029		Set screw M3	
18	PF20828		Allen screw M3	
19	PF21501		Pump housing	A2
21	PF20011	x	O-ring Ø 13	FKM
22	PF20084	x	O-ring Ø 15	FKM
23	PF21464		Vent valve with nipple M5 reduced	
24	PF20007	x	O-ring Ø 16	FKM
25	PF21508	x	Sealing set with housing for	
26	PF20585		Allen screw M3	
27	PF21411		End piece	A2
28	PF21455	x	Dispensing tip tapered Ø 0,2 mm	A2
	PF21454	x	Dispensing tip tapered Ø 0,3 mm	A2
	PF21453	x	Dispensing tip tapered Ø 0,5 mm	A2
29	PF21378		Air cap eco-SPRAY Ø 1,45 mm	A2
	PF21379		Air cap eco-SPRAY Ø 1,7mm	A2
	PF21380		Air cap eco-SPRAY Ø 2,0 mm	A2
30	PF21460	x	O-ring R 11	FKM
31	PF21291		Assembly tool for precision nozzle	A2
	PF20204		Electronic screwdriver size 2.5 mm	
	PF20203		Allen wrench	
	PF20366		Pin 3M6	
34	PF120308		L-fitting	
33	PF21502		Blind cap for	A2

## Spare parts



## eco-CONTROL EC200-DUO

**Attention this product is no longer available.**



**discontinued**

### Product description

The new and innovative eco-CONTROL EC200-DUO, made by ViscoTec offers a wide range of applications for the 2-K-precision-volume-dispenser eco-DUO450 and eco-DUO600.

### How it works

The control unit eco-CONTROL EC 200-DUO has been developed and tested for accurate work with the 2-K-precisionvolume-dispenser eco-DUO. The control unit has a variety of configuration options to dosing, dispensing time and mixing ratio. All production-related values can be stored and changed at any time. The operation takes place over an intuitive user guidance using a graphical user interface. An integrated pressure control ensures the optimum process safety of the system. There is also the possibility of data exchange with a USB interface.



pressure monitoring  
Inlet/outlet pressure

Valve connection 1 and 2  
 Connection Replacement pedal  
 Terminal strips for interfaces  
 RS232 interfaces  
 USB  
 SD card, max. 24  
 Dosing programs with Microsoft  
 Writable and readable operating system



Easy navigation  
 through the menu  
 NaviWheel, illuminated  
 Membrane keypad  
 with LED status  
 indicators

Start/Stop program  
 time program  
 quantity program

### Functions/Programs

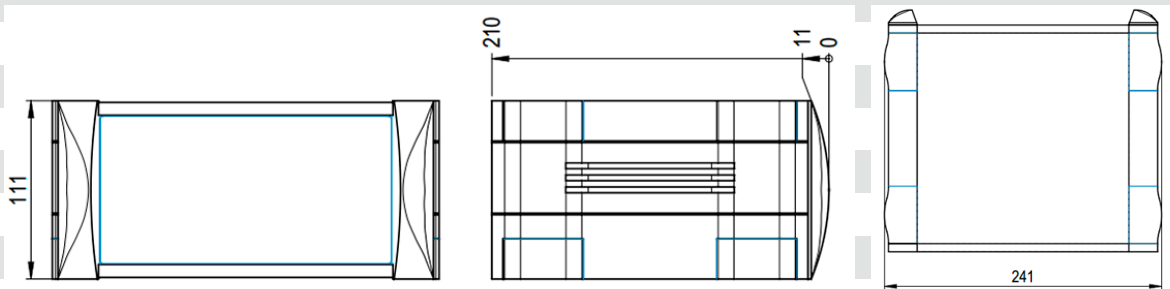
- Quantity program
- Start / Stop Program
- Time program
- Mixing ratio up to 10:1
- Adjustable mixer sizes
- Adjustable individual pot life
- Flush out or empty shot
- Calibration manual / automatic
- Desired-volume display in grams or millilitres

- Dosage flow rate display in millilitres per minute or grams per minute
- Storage of PDM-supported dosing programs
- Desired-pressure and actual-pressure display in Bar or Psi
- Digital clock

## Technical data

Dimensions (HxWxD):	110 x 240 x 210 mm
Weight:	approx. 1300 grams
Voltage:	24 V DC / 3,75 A / RMS<200 mV, AC adapter included in delivery
AC adapter voltage:	230 V / 50 / 60 HZ
Power rating:	100 VA / 2,7 A
Start:	Key, foot switch, extern on terminal
External stop / start:	24 V impuls, 10 mA terminal strip; low 0 to 1,5 V; high 12 to 24 V
On/off switch:	yes
Interface:	USB, RS232
Inlet pressure monitoring:	0 to 7 bar optional
Outlet pressure monitoring:	0 to 40 bar
External memory:	MM C/SD-Card, 64 MB min; 24 dosing programs max;
Data evaluation:	optional readable outlet pressure signals
Operating conditions:	+10°C to +40°C (Ta.), air pressure 1 bar
Medium temperature:	+10°C to +40°C
Storage environment:	dry / dust free; -10°C to +40°C
CE certified:	yes

## Technical Drawings



## 2K-Speed-Control plug'n'mix

Article number: PF21129

### Product description

The controller Speed-Control “plug'n'mix” from the brand preeflow was especially developed for 2-components applications.



### Operating principle

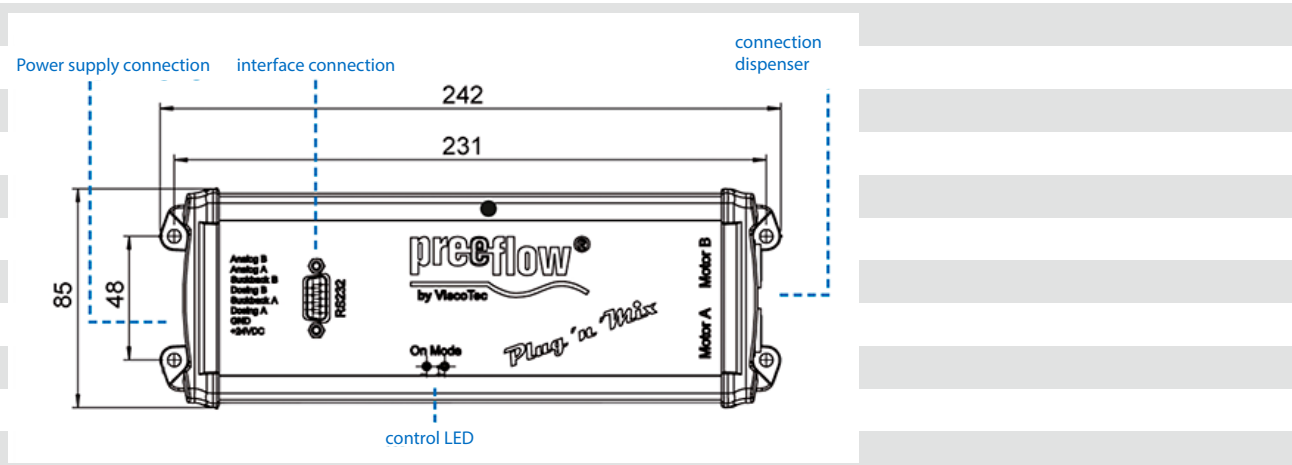
Thanks to a standard terminal program can be programmed and configured the controller. In this case, the dispenser eco-DUO could be calibrated for different functions such as dosing speed or mixing ratio.

The volume speed, the dosing quantity and the suck back are be controlled the process by a 0 to 10 V signal. The integrated motor monitoring as overload protection for the dispenser can be processed as an error message.

### Technical data

Dimensions (HxBxT):	242 x 85 x 50 mm
Mounting:	4 holes / 5 mm hole interval 231 x 48 mm
Weight:	approx. 500 g
Supply voltage:	24 V DC
Interface:	RS232
Mains adapter:	Included in delivery
Consumption / rating:	24 V DC / 2 A
Operating conditions:	+10°C to +40°C (TA.) Air pressure 1 bar
Storage condition:	Dry / dust-free -10°C to +40°C

### Technical drawings



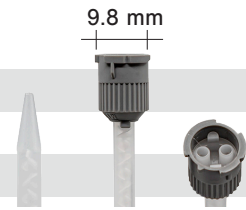
## Accessories

### Optionally available accessories

Number	Application	Description
PF20143	attachment	Tripod eco-PEN cpl.
PF20145	attachment	Holding for dispenser eco-PEN300/450, suitable for tripod Art. Nr. 20143
PF20147	attachment	Holding for dispenser eco-PEN600/700, suitable for tripod Art. Nr. 20143
BG3000742		Replacement foot pedal for eco-CONTROL
PF20313	electronic accessories	Cable extension (line driver) extender 5 m cpl. Only for eco-CONTROL EC200-K/B/DUO
PF20314	electronic accessories	Cable extension (line driver) extender 10 m cpl. Only for eco-CONTROL EC200-K/B/DUO
PF20159	electronic accessories	Power supply (2.7 A) for eco-CONTROL EC200-K (table housing, plastic), with round connector 2 poles metal
PF20163	electronic accessories	Power supply (2.7 A) for eco-CONTROL EC200-B cpl.
PF20333	electronic accessories	Activation motor 2 for dispenser eco-PEN/300/450/SPRAY, stronger power supply incl., SD-card
PF20335	electronic accessories	Activation motor 2 for dispenser eco-PEN600, stronger power supply incl., SD-card
PF20326	Prozesszubehör	ecoRemote-232 interface for external program selection
PF20656	attachment	Fastening set for eco-DUO330/450
PF21172	attachment	Fastening set for eco-DUO600
PF20691	process accessories	Calibrating adapter for eco-DUO330/450
PF21180	process accessories	Calibrating adapter for eco-DUO600
PF20720	electronic accessories	Cable extension for pressure sensor „disynet“, 5 m cpl. And suitable for drag chains
PF21614	process accessories	Heater assemblies cable incl.
PF21146	process accessories	Sensor Interface flowscreen – Druck-Auswertegerät für eco-DUO600
BG100137		Sensor connection cable M12, Preeflow EC-200B/K empty signal, 4-pin, 5 m
BG3000888		Adapter cable EC200 2.0 X1, device connector

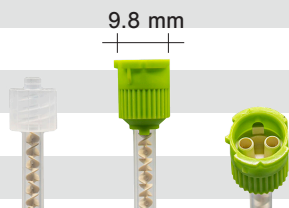
## Mixing tube

### Bayonet connection, static



Conical tip, material PP

Article number	l-mm	i-Ø mm	o-Ø mm	elements
MR5000100	50	2.5	3.9	12
MR5000101	61	3.2	4.8	12
MR5000102	74	3.2	4.8	16



Tip Luer Lock, material PP

Article number	l-mm	i-Ø mm	o-Ø mm	elements
MR5000103	68	3.2	5.0	16



Mixing tube extension, Luer-Lock connection

Article number	l-mm	i-Ø mm	o-Ø mm	elements
MR5000104	50	2.5	3.5	16
MR5000114	100	2.5	3.5	16



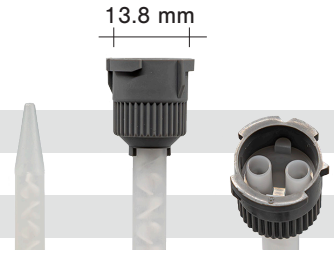
Mixing tube extension, tip Luer-Lock, Luer-Lock connection

Article number	l-mm	i-Ø mm	o-Ø mm	elements
MR5000106	60	2.5	3.5	16



## Mixing tube

### Bayonet connection, static



Conical tip, material PP

Article number	l-mm	i-Ø mm	o-Ø mm	elements
MR5000107	77	3.0	4.8	16



Stepped tip, material PP

Article number	l-mm	i-Ø mm	o-Ø mm	elements	accessories
MR5000108	112	5.4	7.1	16	BG3000232
MR5000123	133	6.5	7.1	20	BG3000232



QUADRO™, tip Luer-Slip, material PP

Article number	l-mm	i-Ø mm	o-Ø mm	elements
MR5000117	122	5.5	6.9	24