

# ECO-PEN



## HOW IT WORKS

Our eco-PEN is a true volumetric dispensing system that applies the smallest amounts of single-component fluids – for high-precision dispensing technology. Thanks to the proven endless piston principle, watery to pasty liquids are perfectly dispensed. A clean, process-reliable dosage is achieved regardless of fluctuations in viscosity.

preeflow® stands for high-quality products, from control units to dispensers. Always true to the motto: “smaller, more precise, more economical”. They are suitable for manual workstations, such as workbench applications, or for semi and fully automated operation.



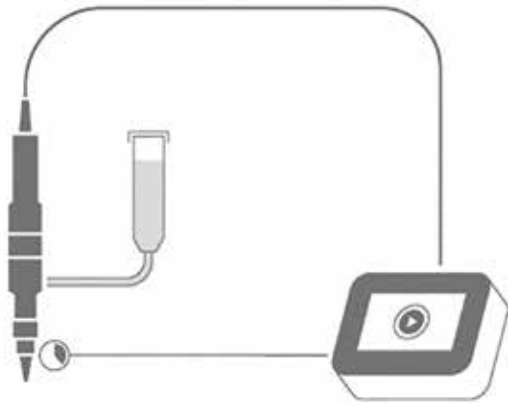
Description	eco-PEN300	eco-PEN330	eco-PEN450	eco-PEN600	eco-PEN700 <sup>3D</sup>
Art. No.	20505	21525	20092	20048	20723
Measurements	length 216 mm, Ø 33 mm	length 225 mm, Ø 33 mm	length 228 mm, Ø 33 mm	length 274 mm, Ø 40 mm	length 274 mm, Ø 40 mm
Weight	280 g	300 g	300 g	650 g	650 g
Operating pressure <sup>(5)</sup>	0 – 6 bar	0 – 6 bar	0 – 6 bar	0 – 6 bar	0 – 6 bar
Max. dispensing pressure <sup>(1)</sup>	20 bar	20 bar	20 bar	20 bar	10 bar
Viscosity	watery to pasty	watery to pasty	watery to pasty	watery to pasty	watery to pasty
Volume flow	0.12 – 1.48 ml/min	0.2 – 3.3 ml/min	0.5 – 6.0 ml/min	1.4 – 16.0 ml/min	5.3 – 60.0 ml/min
Min. dispensing quantity	0.001 ml	0.002 ml	0.004 ml	0.015 ml	0.060 ml
Dispensing accuracy <sup>(2)</sup>	± 1 %	± 1 %	± 1 %	± 1 %	± 1 %
Stator material	VisChem	VisChem (optional VisLas)	VisChem (optional VisLas)	VisChem (optional VisLas)	VisChem
Material inlet	G 1/8" DIN/ISO 228	G 1/8" DIN/ISO 228	G 1/8" DIN/ISO 228	G 1/4" DIN/ISO 228	G 1/4" DIN/ISO 228
Material outlet	Luer-Lock (patented)	Luer-Lock (patented)	Luer-Lock (patented)	Luer-Lock (patented)	Luer-Lock (patented)
Wetted parts	POM / stainless steel / VisChem / HD-PE	POM / stainless steel / VisChem / HD-PE (optional VisLas)	POM / stainless steel / VisChem / HD-PE (optional VisLas)	POM / stainless steel / VisChem / HD-PE (optional VisLas)	POM / stainless steel / VisChem / HD-PE
Operating conditions	10 – 40 °C	10 – 40 °C	10 – 40 °C	10 – 40 °C	10 – 40 °C
Repeat accuracy	> 99 %	> 99 %	> 99 %	> 99 %	> 99 %

(1) Max. dispensing pressure and self-sealing decrease with decreasing viscosity, increase with increasing viscosity. Consult the manufacturer.

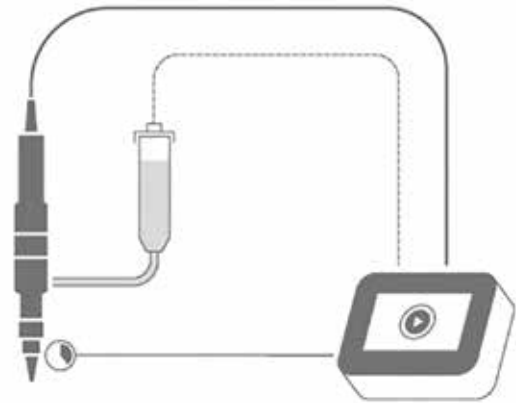
(2) Volumetric dispensing as absolute deviation related to one revolution of the dispenser. Depends on the viscosity of the dispensing material.

(5) Non-self-levelling-fluid

## SYSTEM PRESENTATION



Self-levelling liquid, low viscosity material

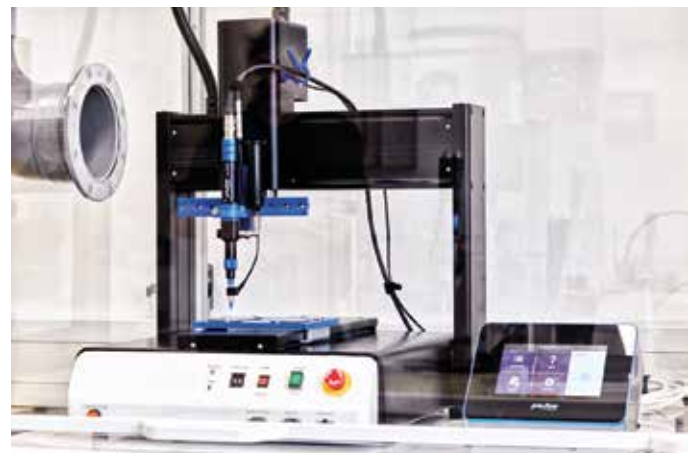


Non-self-levelling liquid, medium to high viscosity material, incl. pressure feed

## APPLICATION EXAMPLE

In the field of electronics, more and more devices and enclosures are being bonded instead of screwed or fastened. The eco-PEN series from preeflow® meets the demands of the market for miniaturization. The micro-dispensing units achieve the smallest dispensing results of up to 0.001 ml and can therefore be implemented into almost any dispensing application. Among the advantages that the customer benefits from, through the integration of the eco-PEN into their system, are precision, a repeat accuracy of  $\geq 99\%$ , a stable process and a clean dispensing application.

True to the motto "plug'n'dose", both the 1 component dispenser eco-PEN and the 2 component dispenser eco-DUO are ready to use after a simple stator installation and connection to the controller. The operation of the dispenser and the controller is intuitive. In addition to the ease of commissioning and the capability of applying a large number of different materials, there are other advantages: the viscosity-independent, purely volumetric dispensing in small and very small quantities.



# TECHNICAL FEATURES



Genuine volumetric dispensing



Dispensing regardless of viscosity



Dosing independent of input pressure



Pressure-tight without valve



Suck-back effect



Easy cleaning



Adjustable dispensing flow



Dispensing pressures from 0 to 20 bar

**MORE INFORMATION  
CAN BE FOUND AT**



[www.preeflow.com/en/  
products/1k-dispenser/](http://www.preeflow.com/en/products/1k-dispenser/)