

Volumetric dispensing systems

DELO-DIV Series

High-precision adhesive dispensing
for electronic components.



Volume dispensers

for high-tech applications in the automotive sector.

In high-tech automotive applications, such as advanced driver assistance systems (ADAS) and electric motors, **accurate** and **consistent dispensing** of adhesives, potting compounds, and other multifunctional plastics is essential for **optimal performance** and **safety**. The DELO-DIV VD (DIV = dispensing valve, VD = volumetric dispenser) system is designed to meet these requirements.

Using an endless-piston mechanism, this system achieves a **dispensing accuracy of $\pm 99\%$** , regardless of the material viscosity. As a result, both pasty and filled materials can be applied gently and precisely in small amounts or in large production volumes, **without dripping or bubble formation**.



Visit our website.

go.delo.de/en-del-div

— Adhesive





99 %




dispensing accuracy

Dispensing valves

With minimum **dispensing volumes ranging from 4 µl to 2 µl**, **DELO-DIV VD450** and **DELO-DIV VD330** are suitable for miniaturized applications, including active alignment in the ADAS sector.

DELO-DIV VD600 is designed to handle larger **volume flows ranging from 1.4 to 16.0 ml / min**, which can be used for potting applications in electric motors. The dispensing system is also capable of accurately dispensing small quantities as low as 15 µl.

Product features

	DELO-DIV VD330	DELO-DIV VD450	DELO-DIV VD600
			
Dimension	Ø 33 mm × 225 mm	Ø 33 mm × 228 mm	Ø 40 mm × 274 mm
Media viscosity	Aqueous to pasty	Aqueous to pasty	Aqueous to pasty
Volume flow	0.2 – 3.3 ml / min	0.5 – 6.0 ml / min	1.4 – 16.0 ml / min
Minimal dispensing volume	0.002 ml	0.004 ml	0.015 ml
Dispensing precision	± 99 %	± 99 %	± 99 %
Media input	G 1/8" DIN / ISO 228	G 1/8" DIN / ISO 228	G 1/4" DIN / ISO 228
Media outlet	Luer-lock (patented)	Luer-lock (patented)	Luer-lock (patented)
Repetition accuracy	> 99 %	> 99 %	> 99 %
Weight	300 g	300 g	650 g

Control

The DELO-DIV series can be controlled via the DELO-DIV pilot 1T (T = touch-controlled), which is designed for **manual workstations in laboratory** settings and for pre-series or small batch production.

The DELO-DIV pilot 1i (i = integrated) is a **PLC-compatible**, compact control system intended for **large-scale quantities** and can be integrated into fully automated systems.

Product features

	DELO-DIV pilot 1T	DELO-DIV pilot 1i
		
Dimensions (width x depth x height)	230 mm × 175 mm × 85 mm	142 mm × 85 mm × 50 mm
Supply voltage	110 – 230 V AC, 50 / 60 Hz	24 V DC
Operating mode	Start-stop / quantity	Start-stop
Display	7"-TFT with capacitive touch	–
Port	Digital-I/O, analog inputs, RS232, USB, (Ethernet)	Digital-I/O, analog inputs
Weight	2,900 g	260 g

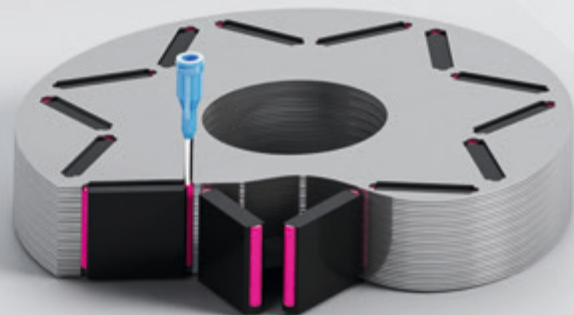
Applications

Highest precision for ADAS

Reliable detection of traffic signs and pedestrians is crucial for the safety and performance of modern ADAS applications. To meet the requirements for **precision** and **reproducibility**, the DELO-DIV VD series is used for assembly of optical and electronic components in vehicle camera modules, resulting in high image quality.

Large-scale production of drive motors

Our volume dispensers offer **precise results for miniaturized and large-volume applications**, such as the bonding of buried magnets in electric motors. DELO-DIV VD provides accuracy at high volume flows, which is important for large-scale production to maintain consistent quality and efficiency.



— Adhesive

Endless-piston principle

The endless piston design feeds adhesives forward, minimizing the impact of temperature-related viscosity fluctuations. This allows for smooth application of highly viscous, pasty, or filled materials in small quantities. The integrated retraction function helps prevent bubble formation and unwanted dripping.

DELO-ACTIVIS

Activation on the flow

Dispensing and curing in one step

With activation on the flow and DELO-ACTIVIS, DELO has developed a technology that for the first time combines the dispensing and preactivation of adhesives with UV light in one step.

The curing process begins as soon as the adhesive is irradiated with UV light. This process allows **complex geometries**, such as shadow zones with undercuts, to be bonded or sealed quickly.

As a **timesaving, cost- and energy-efficient technology**, activation on the flow can be an alternative to heat curing, dual curing (light fixation and heat curing) or two-component curing.

Dispensing without a curing oven leads to **faster production processes, lowers production costs** and significantly **reduces carbon emissions**.



Your benefits at a glance

>50 %

cost savings by
DELO-ACTIVIS compared
to heat curing.

>98 %

reduced carbon emissions
without heat curing.

100 %

design freedom
for all geometries.

DELO Industrial Adhesives

**China | Czechia | France | Germany HQ | Italy | Japan
Korea | Malaysia | Singapore | Thailand | USA**

The technical data is for informational purposes only. Specific values can be found in the user manual. It is the user's responsibility to test the suitability of the device for the intended purpose by considering all specific requirements. If you need support in using the devices, please feel free to contact your representative in our Sales Department.

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