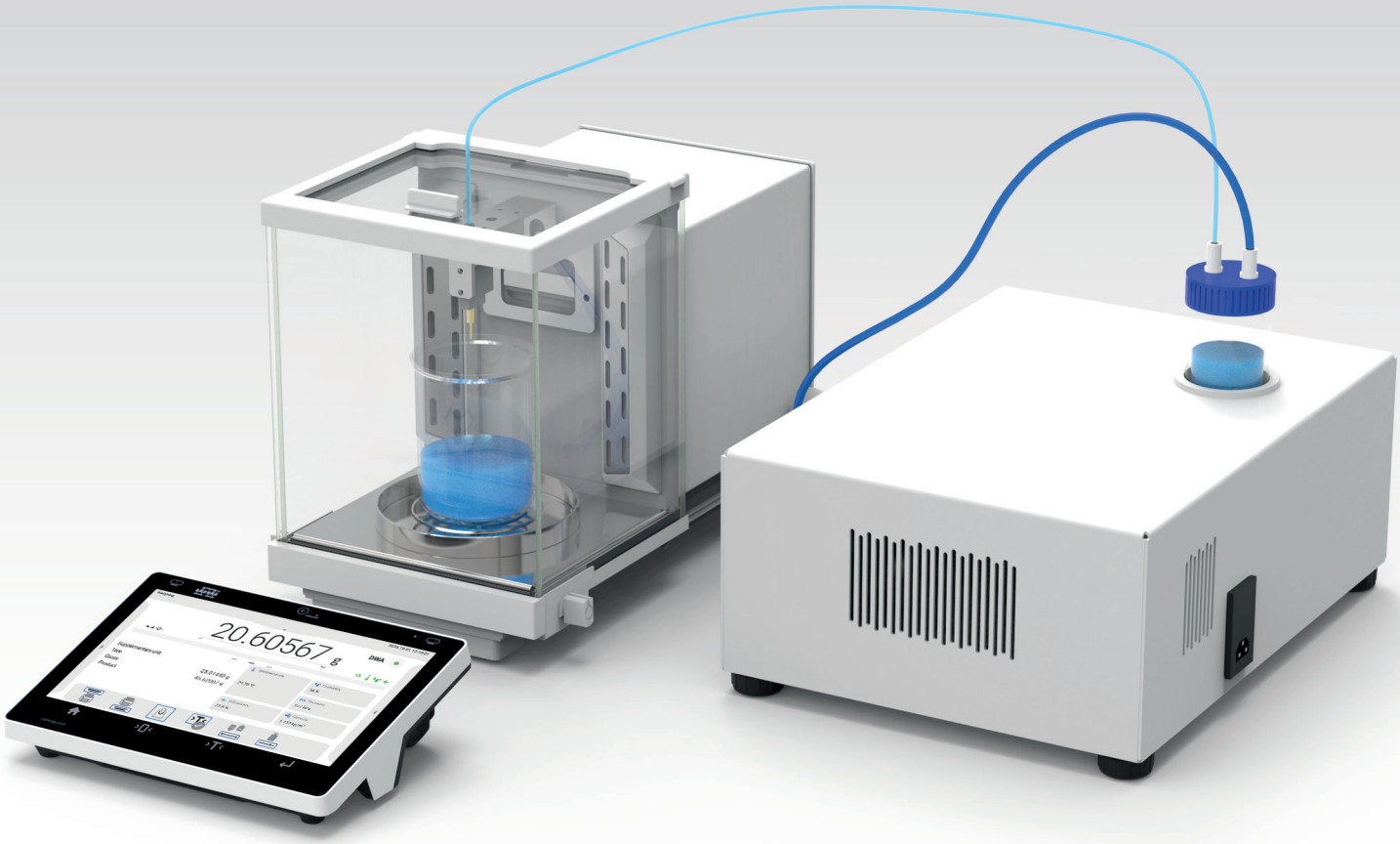
# LDS.1.5Y

## Liquid Dosing System

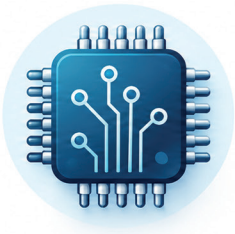





Laboratories



Pharmaceutical Industry



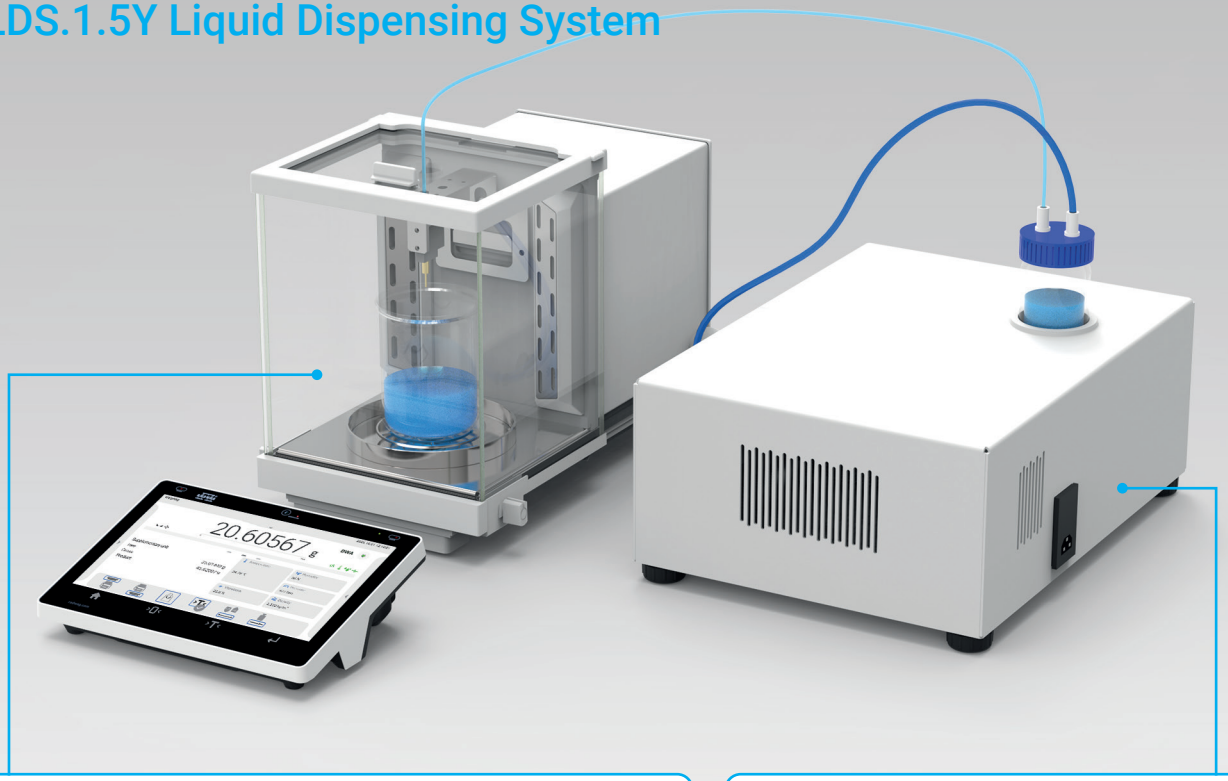
Electronics Industry



Chemical Industry

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# LDS.1.5Y Liquid Dispensing System



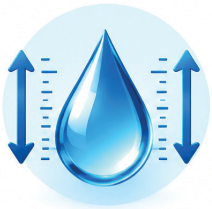

### 5Y Series Balance

The 5Y series balance, equipped with dedicated dispensing software, controls the dispensing process according to a user-defined algorithm.

Using continuous mass measurements and closed-loop feedback, it automatically adjusts dispensing to maintain the target amount within the specified tolerance, compensating for flow rate variations caused by pressure fluctuations or changing operating conditions.

### Dispensing Unit

The dispensing unit incorporates two pumps responsible for maintaining constant pressure within the system, together with control electronics and a liquid dispensing head. Maintaining stable pressure is essential to achieving the required dispensing accuracy and repeatability.



**Wide dosing range**
from 10 mg to 200 g.



**Automatic process control**
based on mass measurement using a closed-loop feedback system.



**Automatic dosing stop**
upon reaching the target value.



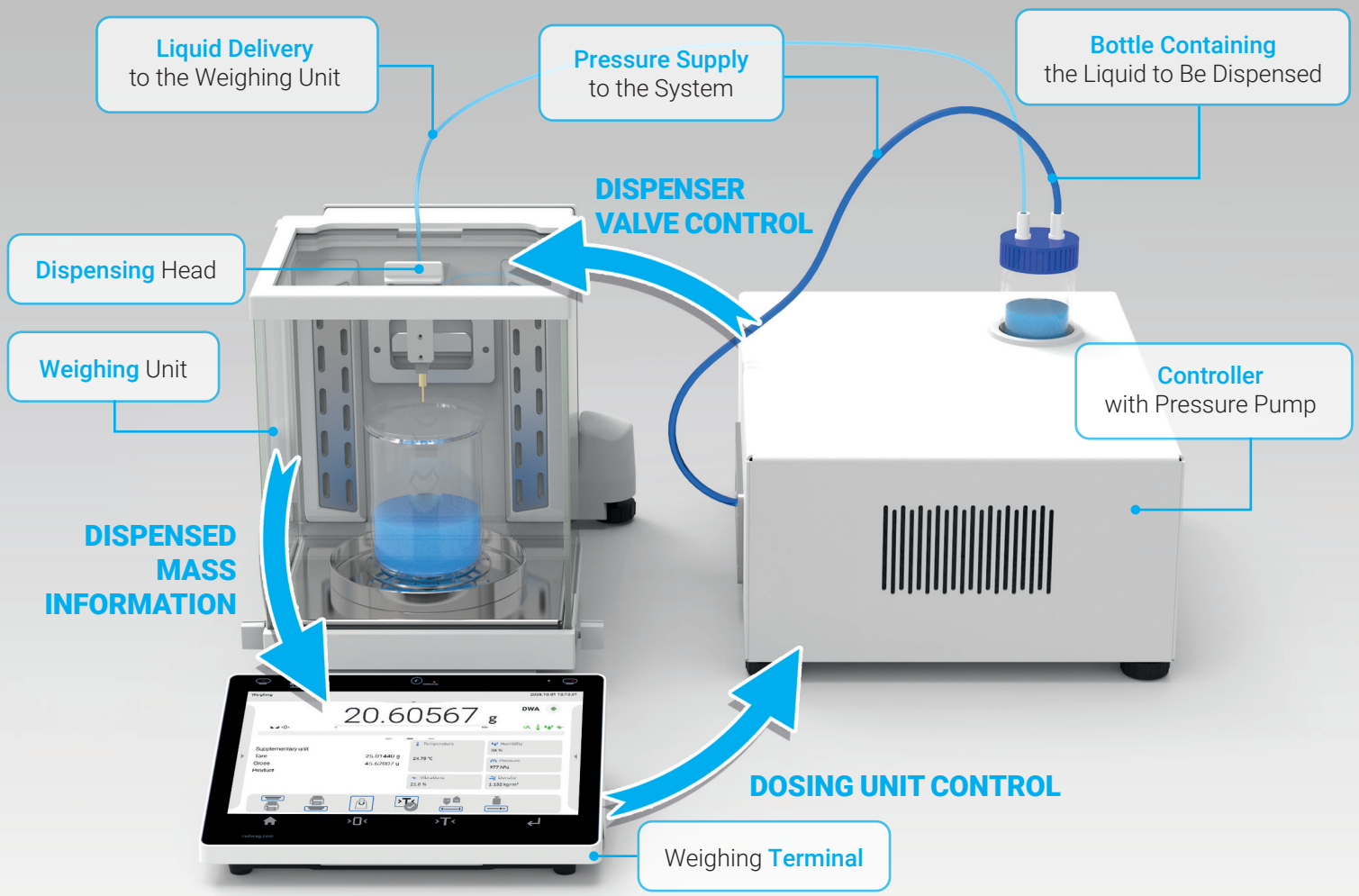
**Electronic dosing process**
control system ensuring high process repeatability.

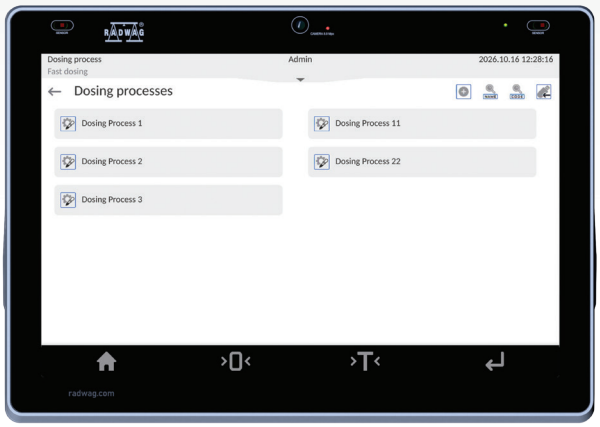


**System equipped with two pumps**
maintaining constant pressure to ensure the required dosing accuracy and repeatability.

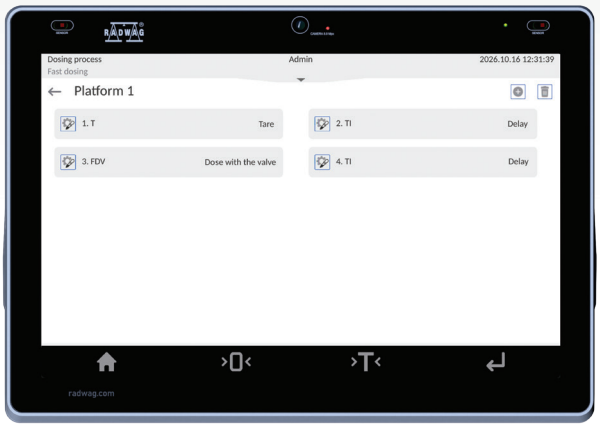


**Adjustable dosing head height**
to accommodate vessels of different sizes.

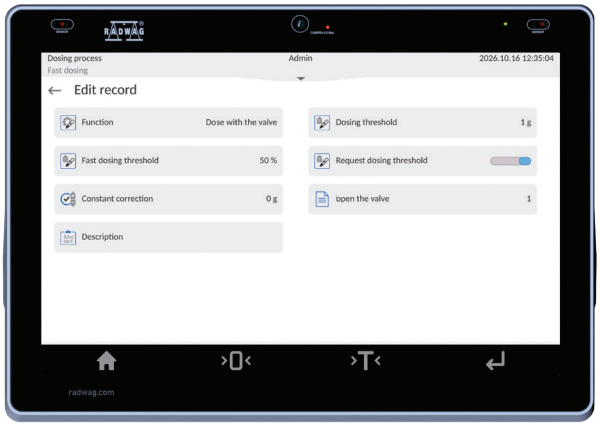



Dosing Process Database




Definition of the Dosing Algorithm




Setting Dosing Thresholds




Automatic Flow Rate Determination

## Technical Specifications of Liquid Dosing Systems

| Model | Maximum capacity [Max] | Readability [d] | Standard Repeatability [5% Max] | Stabilization time | Weighing pan dimensions |
|---|---|---|---|---|---|
| **LDS.1.52.5Y.A** | 52 g | 0.01 mg | 0.005 mg | 4 s | ø90 mm, ø85 mm (option) |
| **LDS.1.82/220.5Y.A** | 82/220 g | 0.01/0.1 mg | 0.005 mg | 4 s | ø90 mm, ø85 mm (option) |
| **LDS.1.110.5Y.A** | 110 g | 0.01 mg | 0.005 mg | 4 s | ø90 mm, ø85 mm (option) |
| **LDS.1.120/250.5Y.A** | 120/250 g | 0.01/0.1 mg | 0.005 mg | 3 s | ø90 mm, ø85 mm (option) |
| **LDS.1.210.5Y.A** | 210 g | 0.01 mg | 0.005 mg | 4 s | ø90 mm, ø85 mm (option) |
| **LDS.1.220.5Y.A** | 220 g | 0.1 mg | 0.05 mg | 1.3 s | ø100 mm |
| **LDS.1.310.5Y.A** | 310 g | 0.1 mg | 0.05 mg | 1.3 s | ø100 mm |
| **LDS.1.320.5Y.A** | 320 g | 0.05 mg | 0,02 mg | 1.3 s | ø90 mm, ø85 mm (option) |
| **LDS.1.520.5Y.A** | 520 g | 0.1 mg | 0.07 mg | 1.3 s | ø100 mm |

**Parameters Common to All Models**
**Adjustment:** Internal (automatic); **Display:** 10" colour touchscreen; **Communication Interfaces:** 2×USB-A, USB-C, HDMI, Ethernet, RS232, Wi-Fi®, Hotspot

## Technical Specifications of Dosing Units

| | |
|---|---|
| **Lowest concentration according automated USP minimum weight (typical value)** | 1 mg with 0.01 mg readability<br>8.2 mg with 0.1 mg readability |
| **Maximum Flow Rate (100 mBar)*** | 0.1160 g/s (7 g/min) |
| **Maximum Flow Rate (450 mBar)*** | 0.3450 g/s (21 g/min) |
| **Dispense speed (1 g) at 100 mbar*** | 12 s |
| **Dispense speed (1 g) at 450 mbar*** | 8 s |
| **Dispense speed (5 g)* at 100 mbar*** | 48 s |
| **Dispense speed (5 g)* at 450 mbar*** | 22 s |
| **Dispense speed (10 g)* at 100 mbar*** | 90 s |
| **Dispense speed (10 g)* at 450 mbar*** | 40 s |
| **Viscosity range** | Low-viscosity solvents (<20 cP), e.g. water, acetonitrile, methanol, ethanol, DMSO |
| **Liquid source bottle** | 100 ml, 250 ml, 1000 ml bottle with GL45 thread |

***Values for distilled water**
**Note: Increasing the pressure may adversely affect dosing accuracy.**

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or **visit** our website at **radwag.com**
to explore our **full product range**