CM2W
CONNECT MACHINES TO WEB

MFP Series

Maintenance-Free Performance



Mini Multi-Washing Dosing System

With motor-driven PTFE membrane pumps

Product Overview

A compact, cost-efficient IoT dosing system for on-premise and small-scale laundries, managing up to **2 washer extractors** (max. 35 kg) and **8 chemicals**.

Equipped with **motor-driven PTFE membrane pumps**, it ensures high durability, low maintenance, and precise chemical control with **flow meter technology** for proof of delivery.
All operations are monitored and controlled in real time through a **cloud-based management software**, providing 24/7 access to performance data and consumption insights from any internet-connected device.

Key Benefits

- Real-time monitoring and control via the CM2W IoT platform
- Clear visualization, trends, and notifications
- Reliable cloud connectivity via 4G or Wi-Fi
- Integrated RF module for wireless sensor connection
- High dosing accuracy and proof of delivery
- Low-maintenance and reliable performance
- Easy operation with no special training required
- Remote calibration and programming

Technical Specifications

Hardware & Connectivity

	Parameter	Description
Physical specifications	**Dimensions**	• 50 (H) × 75 (W) × 16 (D) cm – configuration for up to 4 products • 50 (H) × 100 (W) × 16 (D) cm – configuration for 5 to 8 products
	Weight	15–20 kg (depending on configuration)
	Assembly	Fully assembled on a mounting panel (ready for installation)
	Power supply	100 W; 100-240 V, 50/60 Hz (integrated)
	Water supply	• Min: 1 bar / Max: 2 bars • 1/2” female connection
Connectivity	**Internet connectivity**	Via SIM card (mobile network) or Wi-Fi router connection
	RF connectivity	Via RF module (supports wireless sensors)
	Wireless infrastructure	Supports integration of wireless sensors (via RF module)
	Machine connectivity	Signal inputs
	RS485 serial port	1 port
Operational capacity	**Max. washer extractors**	2 washer extractors
	Max. products	8 products
	Max. load capacity	Up to 35 kg (single washer) or 50 kg total
	Max. extension boards	• 2 flow sensor extenders • 1 dry contact extender
	Pumps	Up to 8 motor-driven PTFE membrane pumps
	Water valve	1 water valve output for flushing and rinsing
	Signal inputs (galvanically isolated)	5 signal inputs per washer extractor (voltage ranges: [12–48] V, [48–230] V)
	Flow sensors	2 flow sensor inputs (expandable by up to 8 with flow sensor extenders)

System Components

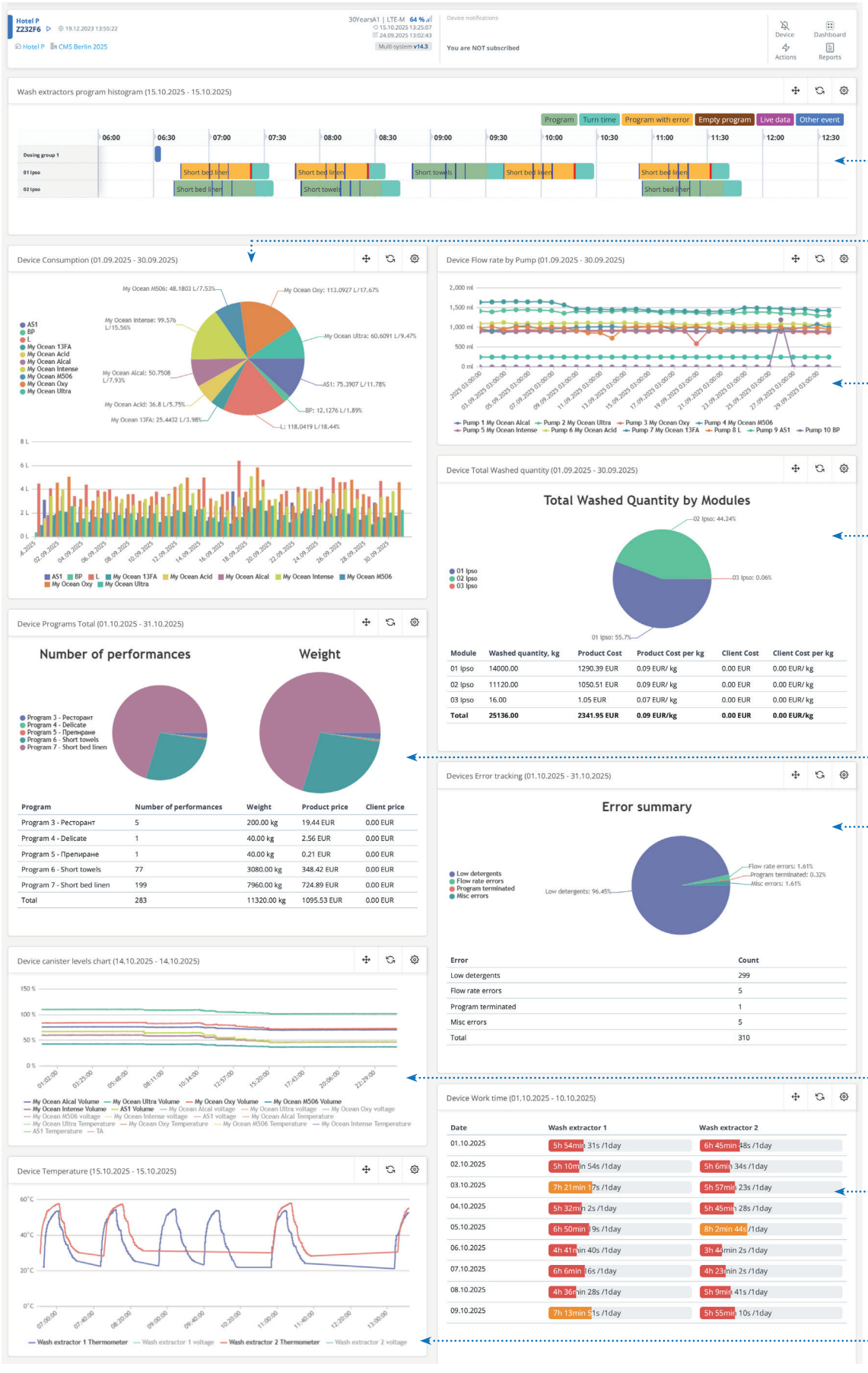
	Parameter	Description
Pumps	Type	Motor-driven PTFE membrane pumps
	Flow rate (max.)	0.3 l/min
	Pressure (max.)	1 bar (rel.)
	Suction height (max.)	5 m H_2O
	Valve material	FFKM
	Diaphragm material	PTFE
	Pump head material	PP
	Motor type	Brushless DC
	Permissible ambient temperature	5 to 40 °C
	Permissible liquid temperature	5 to 80 °C
Flow meters	Type	Standard turbine PVDF flow meter
	Measuring principle	Paddle wheel
	Flow range	0.07 – 5 L/min (H_2O, 20°C)
	Nozzle diameter	3.0 mm (integrated)
	Flow meter materials	PVDF / FKM
	Pulse rate	Approx. 2,500 pulses per liter (H_2O at 20°C)
	Acceptable viscosity (v)	0.2 – 20 mPas
	Operating pressure	-0.7 – 4 bar
	Burst pressure	>16 bar (at 22°C)
	Temperature range	-20°C to +100°C
	Accuracy (v = 1 mPas)	± 2% (at the same operating conditions)
Distribution valve	Type	1 electric valve
	Voltage	24V DC
	Material	PP
Water valve	Piloting valve voltage	24V DC
	Material	Stainless steel
	Closure disk	FKM
Fittings & connections	Fittings material	PVDF
	Connection to water supply	3/4” (Ø19 mm ID) connection
	Connection between pump and manifold	Ø 6 mm ID / Ø 12 mm ED hose connection
	Connection to dosing line tubing	3/8” (Ø10 mm ID) hose connection
Program selectors	Display	16-digit LED program selector (one per washer)
Alarm	Internal alarm (audible)	Buzzer noise
	External alarm (visual)	Signal lamp
	Voltage range	10–30 V DC

Intelligent Dosing & IoT Features

	Parameter	Description
Dosing & calibration	Dosing methods	• **Fixed flow rate dosing** – based on pump flow rate • **Flow sensor dosing** – based on real-time flow sensor measurements
	Weight-based dosing	• **Manual** – controlled via keyboard • **Automatic** – based on weight detection signal duration
	Temperature-based dosing	Supported (via wireless temperature sensors)
	Program start	• **Manual** – controlled via keyboard • **Semi-automatic** – selected from keyboard, triggered by first signal • **Automatic** – based on signal combinations and/or duration
	Calibration	Manual (keyboard) or fully remote calibration and priming
IoT platform features	Access	24/7 in real time
	Copy wizard	Duplicate settings and calibration data across multiple devices
	Offline programming	Device programming in offline environments
	Input signals log	Tracking of input signal logs registered by the system
	Reporting	• Live histogram of program execution • Product consumption • Cost tracking • Flow rate monitoring • Laundry load processed • Machine usage • Total washed quantity • Temperature monitoring
	Sensor-based monitoring	• Washer temperature monitoring (via wireless temperature sensors) • Heating rate monitoring (via wireless temperature sensors) • Product level monitoring (via wireless level sensors)
	Error notifications	Filtered alerts with customizable levels, assigned to designated personnel for rapid response



Monitoring via the CM2W IoT Platform



Module	Washed quantity, kg	Product Cost	Product Cost per kg	Client Cost	Client Cost per kg
01 Ipso	14000.00	1290.39 EUR	0.09 EUR/ kg	0.00 EUR	0.00 EUR/ kg
02 Ipso	11120.00	1050.51 EUR	0.09 EUR/ kg	0.00 EUR	0.00 EUR/ kg
03 Ipso	16.00	1.05 EUR	0.07 EUR/ kg	0.00 EUR	0.00 EUR/ kg
Total	**25136.00**	**2341.95 EUR**	**0.09 EUR/kg**	**0.00 EUR**	**0.00 EUR/kg**

Program	Number of performances	Weight	Product price	Client price
Program 3 - Ресторант	5	200.00 kg	19.44 EUR	0.00 EUR
Program 4 - Delicate	1	40.00 kg	2.56 EUR	0.00 EUR
Program 5 - Препиране	1	40.00 kg	0.21 EUR	0.00 EUR
Program 6 - Short towels	77	3080.00 kg	348.42 EUR	0.00 EUR
Program 7 - Short bed linen	199	7960.00 kg	724.89 EUR	0.00 EUR
Total	283	11320.00 kg	1095.53 EUR	0.00 EUR

Error	Count
Low detergents	299
Flow rate errors	5
Program terminated	1
Misc errors	5
Total	310

Date	Wash extractor 1	Wash extractor 2
01.10.2025	5h 54min 31s /1day	6h 45min 48s /1day
02.10.2025	5h 10min 54s /1day	5h 6min 34s /1day
03.10.2025	7h 21min 17s /1day	5h 57min 23s /1day
04.10.2025	5h 32min 2s /1day	5h 45min 28s /1day
05.10.2025	6h 50min 19s /1day	8h 2min 44s /1day
06.10.2025	4h 41min 40s /1day	3h 44min 2s /1day
07.10.2025	6h 6min 16s /1day	4h 23min 2s /1day
08.10.2025	4h 36min 28s /1day	5h 9min 41s /1day
09.10.2025	7h 13min 51s /1day	5h 55min 10s /1day

Suggested Kit Components

Component	Description	Product code
 Dry contact extender module	Expands the dry contact input capacity of the existing controller, allowing connection of up to 10 additional suction lances with level switches.	*MWLLA-PLUG10*
 Suction lance with wireless level switch	Provides dry-run protection for chemical canisters. Product variations: • **Small:** 80.7 cm (L) × Ø 40 mm (ED); 1 tube connection • **Medium:** 100.7 cm (L) × Ø 50 mm (ED); 3 tube connections • **Large:** 160.7 cm (L) × Ø 50 mm (ED); 3 tube connections	*Request product sheet*
 Flow meter extender module	Expands the number of flow meter inputs on the existing controller, enabling connection of up to 5 additional flow meters.	*EM5WD*
 Low flow PVDF flow mete	For adding an individual flow meter per product to ensure proof of delivery and enhanced dosing accuracy.	*Request product sheet*
 Suction lance with wireless level sensor	Provides continuous monitoring of chemical level and canister temperature. Product variations: • **Small:** 63.2 cm (L) × Ø 40 mm (ED); 1 tube connection • **Medium:** 83.2 cm (L) × Ø 50 mm (ED); 3 tube connections • **Large:** 143.2 cm (L) × Ø 50 mm (ED); 3 tube connections ** Requires RF communication module on the controller.*	*Request product sheet*
 Wireless temperature sensor	Provides real-time monitoring of washer temperature and heating rate. ** Requires RF communication module on the controller.*	*RFTPIREX (EU market)* *RFTPIRNA (US market)*