



# PDS

## PERMANGANATE DOSING SYSTEM



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# PDS

## PERMANGANATE DOSING SYSTEM

**PDS (Permanganate Dosing System)** is a **compact, fully automatic system** designed for the preparation and continuous dosing of **Sodium Permanganate (NaMnO<sub>4</sub>)** and **Potassium Permanganate (KMnO<sub>4</sub>)** solutions, starting from **liquid solutions**, in drinking water or for industrial applications.

It is intended for applications where **reliability, dosing accuracy, and operational continuity** are required. The system allows **flow-proportional control** and automatic management of the oxidizing agent via a touchscreen panel.

The system can be integrated with **PermaTest**, a solution for continuous residual analysis, ensuring complete control of the oxidation process.

## APPLICATION FIELDS



DRINK WATER TREAT. PLANTS



ENVIRONMENTAL REMEDIATION



IRON AND MANGANESE OXIDATION



INDUSTRIAL



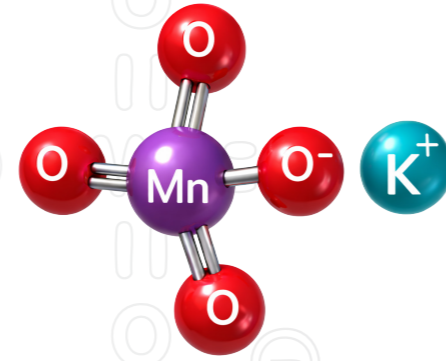
GROUND-WATER

## MAIN FEATURES

- Permanganate dosing setpoint in mg/L
- Automatic flow-proportional dosing
- Automatic calibration of dosing pumps
- Manual mode with preset flow rate
- Flow-proportional control via 4-20 mA signal
- PID control with integrated flow meter
- PID control of dosing pumps
- Flow monitoring and process alarms

## AVAILABLE CONFIGURATIONS

### POTASSIUM PERMANGANATE



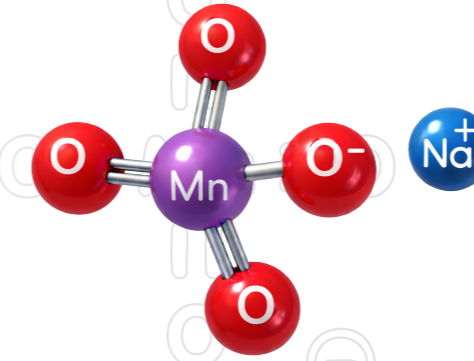
#### WHERE

- ✓ Removal of iron and manganese
- ✓ Oxidation of hydrogen sulfide (H<sub>2</sub>S)
- ✓ Odor control and organic compound oxidation
- ✓ Pre-oxidation in drinking water treatment

#### WHY

- ✓ High chemical stability of the solution
- ✓ Lower aggressiveness toward certain materials
- ✓ Good long-term storage stability
- ✓ Lower maximum concentration in solution

### SODIUM PERMANGANATE



#### WHERE

- ✓ Industrial water treatment
- ✓ Environmental remediation and contaminated soil treatment
- ✓ Oxidation of complex organic compounds
- ✓ Systems with continuous and controlled dosing

#### WHY

- ✓ Much higher solubility
- ✓ Higher operating concentrations
- ✓ Greater fluidity and ease of pumping
- ✓ Higher oxidizing reactivity
- ✓ Particularly suitable for continuous systems

## TECHNICAL SPECIFICATIONS

Power supply	230 Vac ±10% - 50/60 Hz
Power consumption	Approx. 100 W
Protection rating	IP65 / NEMA 4
HMI display	7" touchscreen
Inputs	<ul style="list-style-type: none"> <li>• 4-20 mA analog signal (flow rate)</li> <li>• Remote Start/Stop</li> <li>• Level alarm</li> </ul>
Operating temperature	0 ÷ 40 °C

## SYSTEM COMPONENTS



Dosing pumps (solenoid, stepper, motor-driven)



Floor-mounted installation



HMI Touch Screen 7"



Integrated ultrasonic flow meter



Communication  
Ethernet  
Modbus  
TCP/IP



Reagent level sensor with automatic shutdown



Structure with IP65 protection rating

