EMOS® SINGLE CELL TEMPERATURE EVALUATOR
MONITOR AND CONTROL INDIVIDUAL CELL TEMPERATURES

OVERVIEW

The **EMOS® Single Cell Temperature Evaluator**, as an extension of the **EMOS® SIL2 Safety System**, monitors the temperature of the individual electrolyzer cells. This data can be used to adjust the temperature or the flow rate of the brine passing through the electrolyzer.

Using a cell's heat balance, **EMOS® Single Cell Temperature Evaluator** calculates the temperature at the membrane "hot spot" in the electrolytic cell and converts this value into the virtual catholyte outlet temperatures.

The **EMOS® Single Cell Temperature Evaluator** calculation results are displayed as a property on the main **EMOS® View** screen for added convenience.

With the use of the **EMOS® Single Cell Temperature Evaluator** alarms can be set for individual cells; if desired, each membrane type can have its own defined alarm set-point which can aid in the utilization of membranes as directed by each manufacturer for extended lifetime and warranty validity.

FEATURES	BENEFITS
Alarms: if temperature is outside the defined range (either too hot or too cold)	Extended membrane lifetime
	Avoid invalidating membrane warranty
Information provided to minimize temperature difference between the coldest and hottest cells	Increased current efficiency
	Lower power consumption

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SYSTEM REQUIREMENTS

EMOS® Server	
Operating System	Microsoft Windows Server 2022
CPU	Intel® Xeon® processor
RAM	16 GB
Network Ports	(4) 100/1000
Hard Drive	2x1TB RAID1 SSD (Solid State Drive) recommended

Additional Requirements	
Network	OPC Link with DCS: • Flow Catholyte Inlet • Flow Brine Inlet • Temperature Catholyte Inlet • Temperature Catholyte Outlet • Temperature Brine Inlet

RELATED PRODUCTS

Part Number	Description
SWSTD	EMOS® Safety Software Package

ORDERING INFORMATION

Part Number	Description
SWTEM	EMOS® Single Cell Temperature Evaluator

ADDITIONAL INFORMATION

EMOS® Single Cell Temperature Evaluator is part of R2's Electrolyzer Maintenance, Optimization and Safety System. Contact us for more information.