



Industry 4.0 Solutions:
D³ - Dust Deposit Detector
for photovoltaic systems





D³ - Dust Deposit Detector Monitoring of photovoltaic systems

The dust and energy sensor solution D³ - Dust Deposit Detector is an Industry 4.0-certified product for collecting data from solar systems for monitoring, analysis and prediction of the most important key performance indicators. The goal is to record the relevant data for performance monitoring, using a system consisting of a communication EdgeGateway, a MEP®SmartDevice with the MEP®DataRecorder and the dust and energy sensor, D³ - Dust Deposit Detector, in order to recognize early any energy loss due to dust, rain, snow or the failure of individual PV elements. The system enables therefore both reactive and predictive error detection in photovoltaic systems. The monitoring allows early recognition of errors, using dust detection and analysis functions with additional integrated sensors and inverter data, thus improving the yield. The D³ - Dust Deposit Detector sensor is used as a sensor for yield improvement in PV systems. Many manufacturers offer a service, for a fee, to make status information available to the user. Our strategy is to create a system that allows the end user to gather and report errors in the system simply and reliably on his own.

