



Specification of the physical und logical Interfaces

Physical Interfaces for data gathering:

- Digital Inputs (above optical coupler)
- Analog Inputs
- I2C
- SPI
- RS-232 (if needed with optical coupler)
- RS-422 (if needed with optical coupler)
- RS-485 (if needed with optical coupler)
- M-BUS level converter
- S0 (Impuls- Reading Meter)
- Profibus DP Master
- CAN Open
- USB V 1.1 Host + Device
- Key
- IP
- PoE (Power over Ethernet)
- UPS

Outputs:

- Digital Outputs (above optical coupler or relay)

Miscellaneous:

- CF- Card Slot

Physical Interfaces for data transfer:

- DSL
- GPRS / EDGE / UMTS (integrated)
- WiMAX
- Radio Link
- LAN / WAN / WLAN



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Available Implementations:

Digital Inputs

- Door contact
- Vibration switch
- Stop position switch
- Summary alarms

Analog Inputs

- Solarimeter
- Temperature
- Voltage
- Current (over current transformer)
- Filling level
- Pressure
- Discharge Rate
- Wind power

I2C

- Temperature sensor

SPI

- Pressure

RS-232

- Modbus (ASCII, RTU)
- Weatherstation
- Vestas Windparks
- Start/Stop function for Vestas Windkraftanlagen
- Alarm- and Yield- Interface for renewable energy systems
- Interface for hydropower stations
- GPS- Signal for service vehicles

RS 422 / RS- 485

- SMA Inverter
- KACO- Inverter (if needed)
- Kostal- Inverter (if needed)
- Power-One Inverter (if needed)
- Solutronic- Inverter (if needed)
- Modbus (ASCII, RTU)



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S0 (Impuls- counter)

- Converter S0 --> M-Bus protocol

M-Bus

- Electricity, heat- water and gas- meters
- calibrated electricity meters at power inputs
- alle meters with M-Bus Interface

Profibus DP Master

- Enercon Windparks
- Frequency transformer
- Siemens S7

IP

- Router for IP- based systems
- IP- Cameras with integrated motion detectors
- Alarm- and Yield- Interface for renewable energy systems
- Modbus (IP)
- Siemens MPI- Converter

UPS

- Monitoring of power inputs
- Monitoring of power failures

Digital Outputs:

- Reset / impact of foreign control systems
- Open door from central office
- Switch/trigger of anything function, also via Bi-stable Relay

Possible extensions

As manufacturer and developer of the systems we can adapt and optimize our systems to your application.