

PARTIMEX



Figure: PARTIMEX-AP1*M* (evaluation unit) with
PARTIMEX-SRM (transducer)

- ▶ Robust and safe particle meter for general mining applications
- ▶ The particle meter is used to determine the particle and/or fine dust concentration.
- ▶ Features:
 - High working reliability, since no moving parts in the measuring channel
 - The optics are kept clean by filtered purge air; additional automated cleaning procedure
 - Remote diagnosis and remote maintenance from above surface possible
- ▶ Housing: Stainless steel
- ▶ Measuring range (level of intensity): 0 .. 100 (e.g. mixed dust: 10 corresponds to 16,6 mg/m³)
 - Detection of particles < 5 µm
- ▶ The remote evaluation unit (PARTIMEX-A*) is connected by a max. 30 m long cable (Machaczek, type 5) to the transducer (PARTIMEX-SRM).
The cable is not a part of the package and has to be ordered separately.
- ▶ Electrical connection:
 - Terminals and cable glands,
 - Machaczek connector type ME2A10,
 - Souriau connector series 845 size 2,
 - PROMOS connector type BN 4160 or
 - Hydrostar connector type SKK24
- ▶ Power supply: 10.0 VDC .. 13.0 VDC
- ▶ Output signal:
 - Optocoupler output with selectable functions: frequency 5 - 15 Hz, limit or switching output
 - Current output 4 - 20 mA (source or sink) or
 - Voltage output 0.4 - 2.0 V or 1 - 5 V
- ▶ There is an auxiliary potential-free input on the evaluation unit.
- ▶ Marking according to 94/9/EC:
I M1 EEx ia I (DMT 01 ATEX E 167)



Ordering information evaluation unit **PARTIMEX-A**

| | | |
|-----------|---|--|
| 10 | Electrical connection | |
| | H | Hydrostar connector type SKK24 |
| | K | Terminals and cable glands |
| | M | Machaczek connector type ME2A10 |
| | P1 | PROMOS connector type BN 4160 (analogue output) + terminals (power supply), circuits potential-separated |
| | P2 | PROMOS connector type BN 4160 (power supply + analogue output, not potential-separated) |
| | S | Souriau connector series 845, size 2 |
| 20 | Number of outputs | |
| | | Number of the outputs (1 .. 4) |
| 30 | Electrical connection transducer | |
| | M | Machaczek connector type ME2A10 |
| 40 | Output signal | |
| | F | Frequency 5 - 15 Hz, limit or switching output (optocoupler), selectable |
| | IQ | Current 4 - 20 mA (source) |
| | IS | Current 4 - 20 mA (sink) |
| | U05V | Voltage 1 - 5 V |
| | U02V | Voltage 0.4 - 2.0 V |

Complete order code:

PARTIMEX-A M

Order code transducer:

PARTIMEX-SRM

Note!

- The evaluation unit PARTIMEX-A**M according to the old order code complies with the unit PARTIMEX-A**MF according to the current order code.
- The connection cable (Machaczek type 5, max. 30 m) is not a part of the package and has to be ordered separately. The following lengths are available as standard: 2 m, 5 m, 8 m, 10 m, 20 m and 30 m

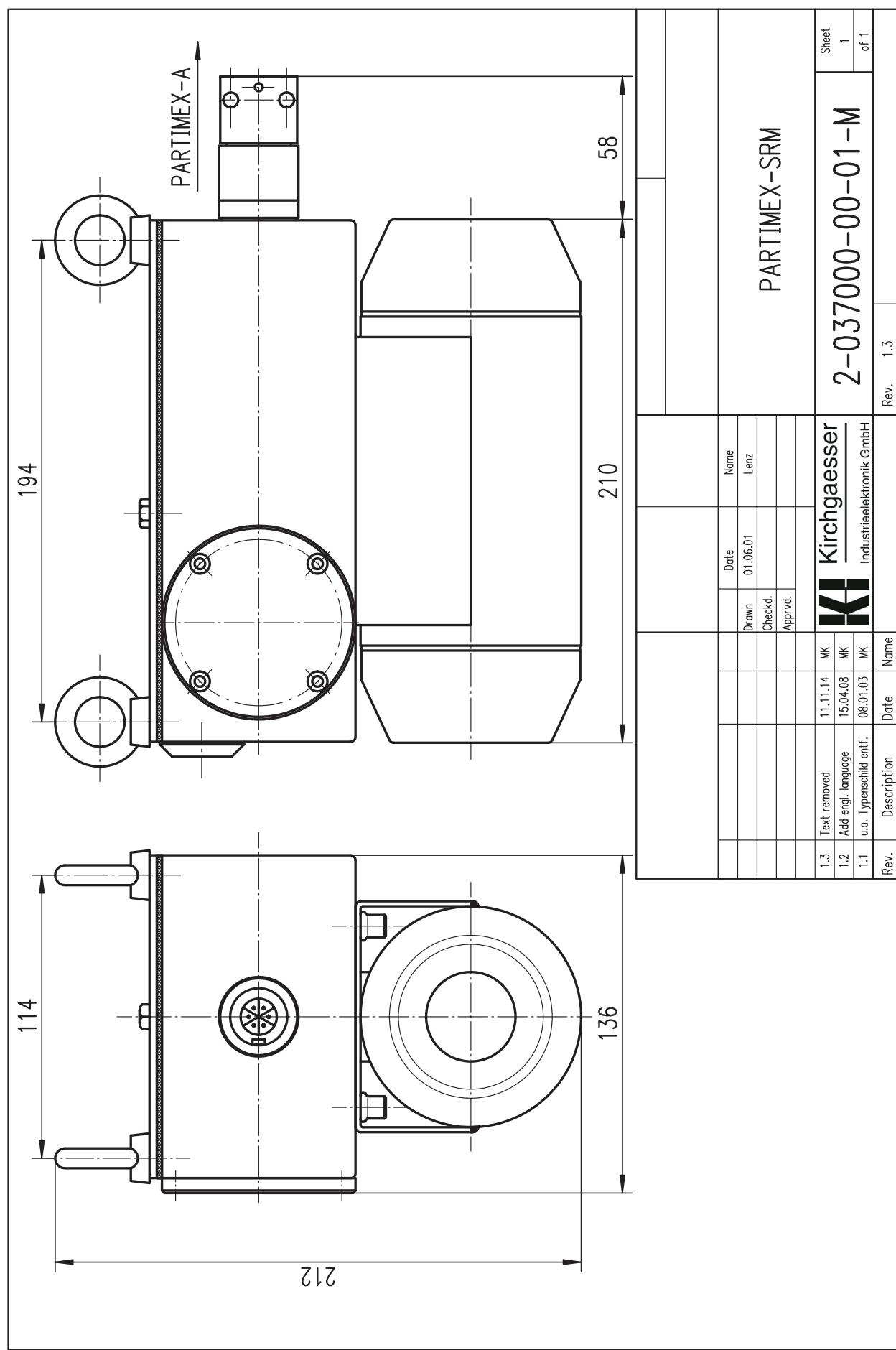
Technical data (general):

- Measuring principle: Measuring the scattered light
- Housing: Stainless steel 1.4301
- Weight: approx. 15 kg
- Protection according to EN 60529: IP 65
- Cable gland:
 - M25x1.5
 - Clamping range 8.5 - 15.0 mm
 - Tightening torque 2 Nm
- Type of protection according to EN 50014: EEx ia I (complies with Ex ia I according to EN 60079-0)
- Ambient temperature: $0^{\circ}\text{C} \leq \text{Ta} \leq +50^{\circ}\text{C}$

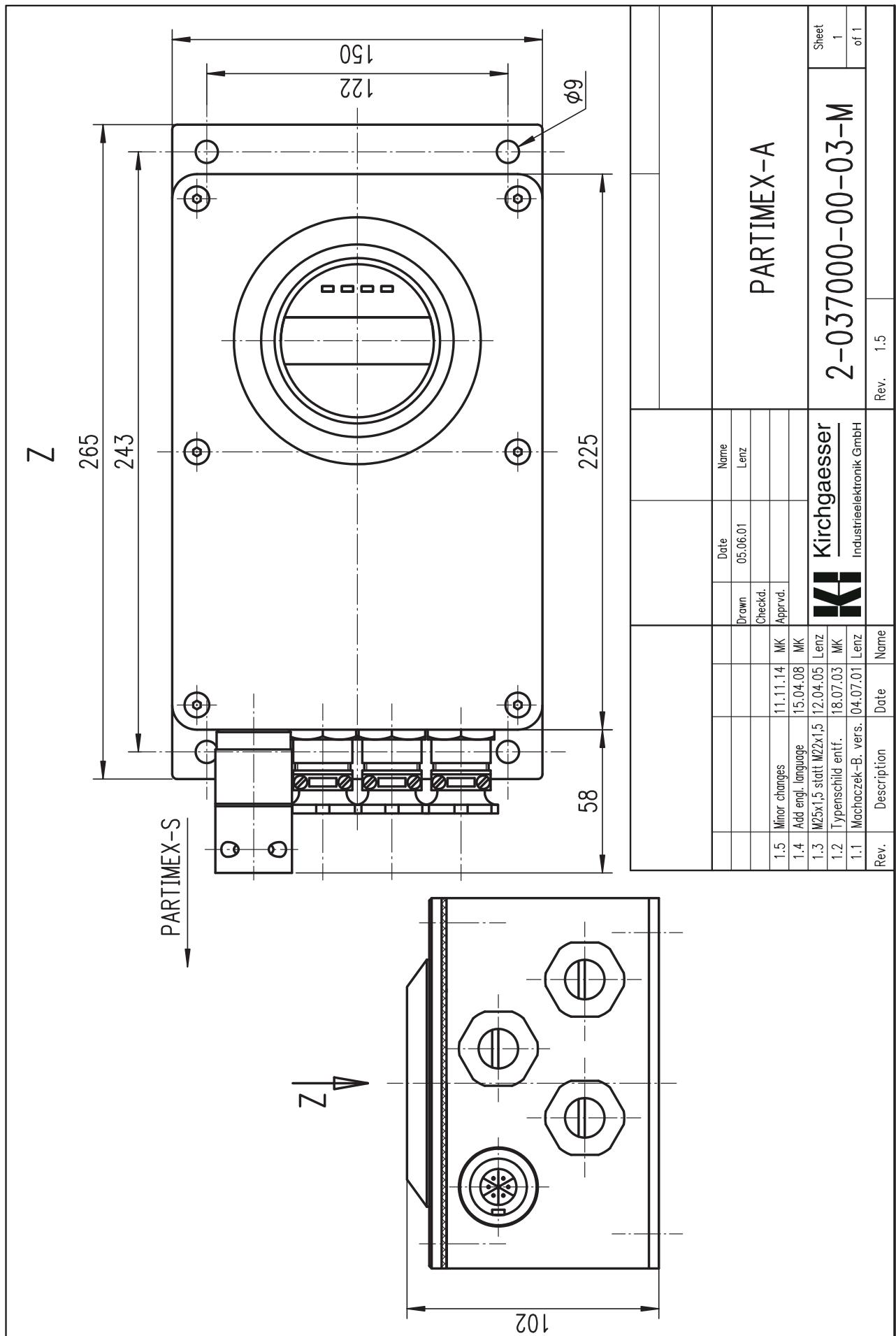
Technical data (electrical):

- Power supply: $10.0 \text{ VDC} \leq \text{Ui} \leq 13.0 \text{ VDC}$
- Current consumption: 0.2 A
- Optocoupler output
 - Output signal: 5 - 15 Hz, limit or switching output
 - Supply voltage: max. 30 VDC (except PARTIMEX-AP*) or max. 13.5 VDC (PARTIMEX-AP*)
 - Power consumption (except PARTIMEX-AP*): max. 50 mW
- Current output
 - Output signal: 4 - 20 mA (source or sink)
 - Supply voltage: $11.0 \text{ VDC} \leq \text{Uio} \leq 13.0 \text{ VDC}$
- Voltage output
 - Output signal: 0.4 - 2.0 V or 1 - 5 V
 - Supply voltage: $11.0 \text{ VDC} \leq \text{Uio} \leq 13.0 \text{ VDC}$
- Input: max. 13.0 VDC
- Internal capacitances, inductances: negligible

Dimension sheets:



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