

Three-Channel Display MA23

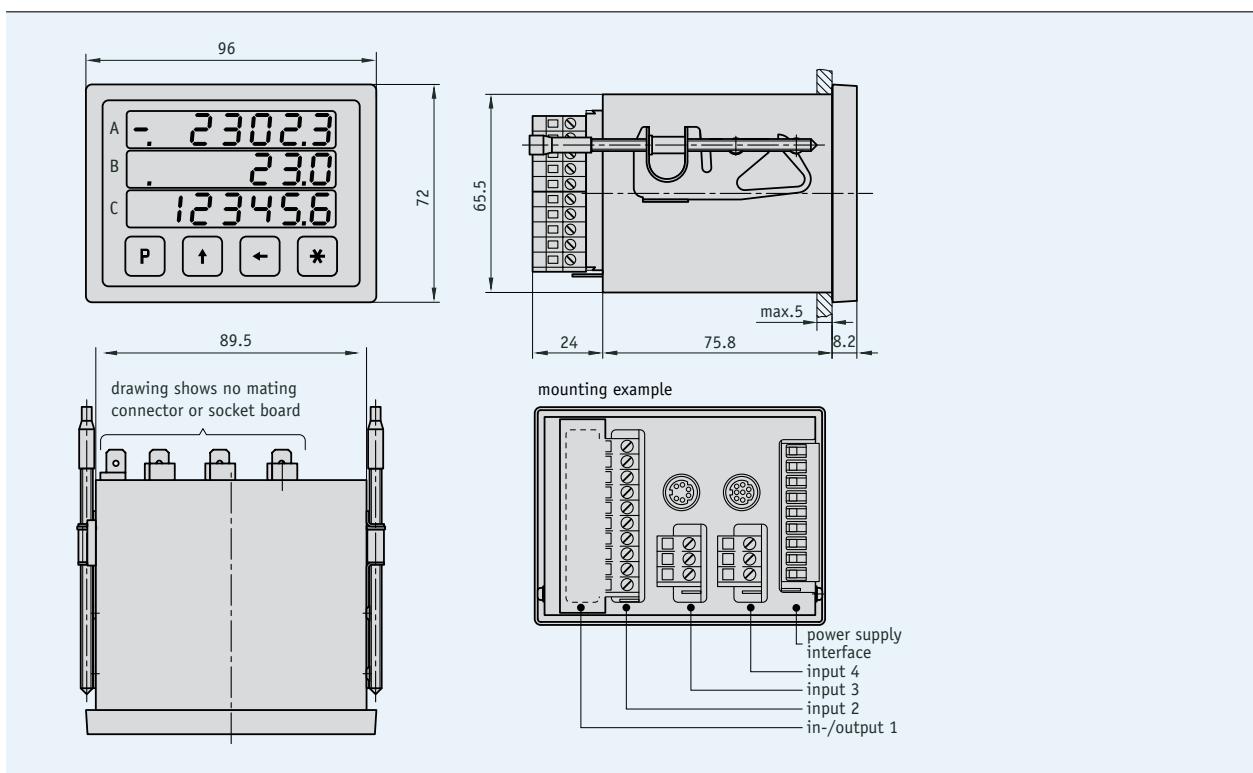
Incremental and absolute, length and angle measurement

Profile

- LED readout for display of 3 measured values (3 lines of 7 digits)
- 3 slots for input cards (rotary encoders, magnetic sensors, length and angle measurement)
- Easy-to-use, menu-guided user interface
- Various measurement systems can be combined, connection of up to three measurement systems possible
- Optional: RS232 or RS485 interface



6.1



Mechanical data

| Feature | Technical data | Additional information |
|-----------------------|---|--|
| Operating temperature | 0 ... +50 °C | |
| Storage temperature | -20 ... +85 °C | |
| Condensation | inadmissible | |
| Protection category | IP40 for whole device IP60 front with switchboard mounting | DIN 40050 |
| Connection | connector strip DIN mini-connector for magnetic sensors | |
| Keyboard | membrane keys with pressure point | |
| Housing | plastic | switchboard cutout 68 x 92 mm, DIN 43700 |
| Weight | approx. 0.35 kg | |

Electrical data

| Feature | Technical data | Additional information |
|-------------------------------|--|----------------------------------|
| Voltage supply | 24 V DC $\pm 20\%$ | |
| Current consumption | ~ 150 mA | with 24 V, without encoder |
| Display | 7-digit, 7-segment LED, red, 10 mm, 3-line | |
| Display range | -999 999 ... +999 999 | e.g., for upper and lower limits |
| Input card incremental | PP/OC, LD5, LD24 | |
| encoder input frequency | 25 kHz | |
| encoder supply | 5 V DC (200 mA), 24 V DC (200 mA) | |
| Input card absolute | SSI | |
| bit width | max. 25 bit | |
| encoder supply | 24 V DC (200 mA) | |
| Input card MLI | SIKO magnetic sensor, type MS500 | |
| Input card MLA | SIKO magnetic sensor, type MSA | |
| Signal inputs | 0 ... 10 V DC 0 ... 20 mA or 4 ... 20 mA 0 ... 10 k Ω | voltage current resistance |
| Encoder input frequency | 25 kHz | |
| Data and actual value memory | EEPROM min. 25 years | |
| Pulse analysis | quadruple | |
| Interference protection class | EN61000-6-2, EN6100-6-4 | |

6.1

Pin assignment

| Power pack + interface | RS232 | RS485 | PIN |
|-------------------------|-------------------------|-------------------------|-----|
| +24 V operating voltage | +24 V operating voltage | +24 V operating voltage | 1 |
| +24 V operating voltage | +24 V operating voltage | +24 V operating voltage | 2 |
| 0 V GND | 0 V GND | 0 V GND | 3 |
| 0 V GND | 0 V GND | 0 V GND | 4 |
| N.C. | TXD | DÜA | 5 |
| N.C. | RXD | DÜB | 6 |
| N.C. | GND interface | GND interface | 7 |
| N.C. | N.C. | N.C. | 8 |
| N.C. | N.C. | N.C. | 9 |

| PP, OC | LD5, LD | NPN | PNP | SSI | PIN |
|---------------------|---------------------|-------|-------|---------------------------|-----|
| + Ub encoder supply | + Ub encoder supply | IN 1 | IN 1 | + Ub encoder supply | 1 |
| A-signal | A-signal | IN 2 | IN 2 | Clock+ | 2 |
| | /A-signal | IN 3 | IN 3 | Clock- | 3 |
| B-signal | B-signal | IN 4 | IN 4 | Data+ | 4 |
| | /B-signal | GND | GND | Data- | 5 |
| Index signal | index signal | Out 1 | Out 1 | GND, screen encod. supply | 6 |
| | /index signal | Out 2 | Out 2 | +24 V | 7 |
| GND | GND | Out 3 | Out 3 | CAL | 8 |
| RFS | RFS | Out 4 | Out 4 | GND | 9 |
| +24 V | +24 V | GND | U in | SE | 10 |

Order

| Feature | Order data | Specifications | Additional information |
|--------------------|---|---|------------------------|
| Input 2 | X PP/OC LD/5 LD/24 SSI MLI MLA URI | A without push-pull/open collector 24 V DC RS422/5 V RS422/24 V Synchronous Serial Interface magnetic measurement system incremental magnetic measurement system absolute analog | |
| Input 3 | ... | B see Input 2 | |
| Input 4 | ... | C see Input 2 | |
| Interface/protocol | X S1/00 S3/00 S3/07 | D without RS232/standard RS485/standard RS485/SIKONETZ-4 | |

6.1

■ Order code

MA23 - **EG** - **A** - **X** - **B** - **C** - **D**

Scope of delivery: MA23, User information, Mating connectors

Additional information:

General information and areas of application

Page 4 cont.