

EL 500 EC K 01

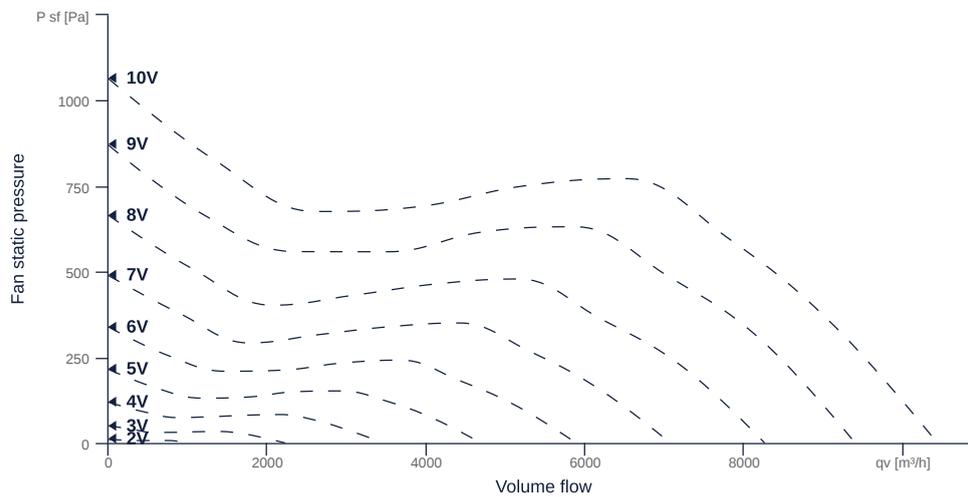
160059

- Innovative, high-efficiency diagonal fan
- Optimally tuned, CFD-optimized aerodynamics
- The benchmark for efficiency since 2007
- High efficiency EC motor, steplessly controllable
- Conveyed medium temperature up to 40 °C in continuous operation
- Housing made of aluminum



FAN CURVES

| Name | Value | Unit |
|-------------|-------|------|
| Volume flow | 0 | m³/h |
| Pressure | 0 | Pa |



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GENERAL DATA

| Name | Value | Unit | Formula symbol |
|---------------------------------------|-----------|------|---------------------|
| Labeling | CE, UKCA | | |
| Duct size | - | | WxHduct |
| Pipe connection size (DN) | DN500 | | DN |
| Rated voltage (entire device) | 400 | v | U _{rated} |
| Phases (entire device) | 3~ | | phase |
| Electrical protection (entire device) | 6 A | | fuse |
| Housing material | Aluminium | | matcasing |
| Impeller material | Aluminium | | matimpeller |
| IP-protection class (entire device) | IPX4 | | IPcompl |
| IP-Protection class (terminal box) | IP55 | | IPebox |
| Weight | 24.8 | kg | m |
| Fan type | Diagonal | | Fan _{type} |
| Category / Installation situation | B | | cat |

MAXIMAL DATA

| Name | Value | | Unit | Formula symbol |
|---------------------------------|-------|-------|------|-----------------------|
| | 50 Hz | 60 Hz | | |
| Max. power consumption (device) | 2085 | 2085 | w | P _{ed, max} |
| Max. operating current (device) | 3.18 | 3.18 | A | I _{ed, max} |
| Max. speed | 2100 | 2100 | rpm | n _{max} |
| Max. stat. efficiency | 64.2 | 64.2 | p | η _{es} |
| Max. fan efficiency | 69.3 | 69.3 | p | η _e |
| Max. flowrate | 10430 | 10430 | CmH | Q _{v, max} |
| Max. stat pressure | 1060 | 1060 | Pa | p _{sf, max} |
| Max. medium temperature | 40 | 40 | °C | T _{m, max} |
| Max. environment temperature | 40 | 40 | °C | T _{amb, max} |
| Min. environment temperature | -20 | -20 | °C | T _{amb, min} |



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MOTOR DATA

| Name | Value | | Unit | Formula symbol |
|--------------------------|----------|---------------------|------|-------------------------|
| | 50 Hz | 60 Hz | | |
| Rated frequency (device) | | 50 | | f |
| Motor type | | EC | | phase |
| Control type | | stepless-controlled | | ctrltype |
| Installation type | | IRM (In) | | install |
| Rotation direction | | right | | rotation |
| Isolation class | | ISO F | | ISOclass |
| Motor-protection | | TEC | | protectmotor |
| Protection class | | IP55 | | IPmotor |
| Is pole-changeable | | No | | polexch |
| Type of power supply | | AC 3~ | | pwrsupmotor |
| Rated voltage | 400 | | v | U _{rated, f1} |
| Rated current | 4.28 | | A | I _{rated, f1} |
| Nominal power | 2200 | | w | P _a |
| Speed | 3000 | | rpm | n _{f1} |
| Efficiency | 86.4 | | p | η _{m, f1} |
| Min. temperature | -20 | | °C | T _{motor, min} |
| Cos Phi | 0.900000 | 0.000000 | | cos φ |
| UL-Certification motor | | None | | ULcert |

ERP DATA (LOT11)

| Name | Value | Unit | Formula symbol |
|---|-------|------|---------------------------|
| Speed at the energy efficiency optimum | 2095 | rpm | n _{opt} |
| Efficiency level | 73.8 | p | N |
| Efficiency category | total | | cat _{efficiency} |
| Input power of the motor at the energy efficiency optimum | 2.2 | kw | P _{e, opt} |
| Overall efficiency | 80.7 | p | η _{ges} |
| Measurement category | B | | meas cat |
| Fan pressure at energy efficiency optimum | 783 | Pa | p _{f, opt} |
| Flowrate at energy efficiency optimum | 7011 | CmH | Q _{v, opt} |

SMOKE EXTRACT DATA

| Name | Value | Unit | Formula symbol |
|-----------------------|-------|------|----------------|
| Fire resistance class | None | | Fclass |

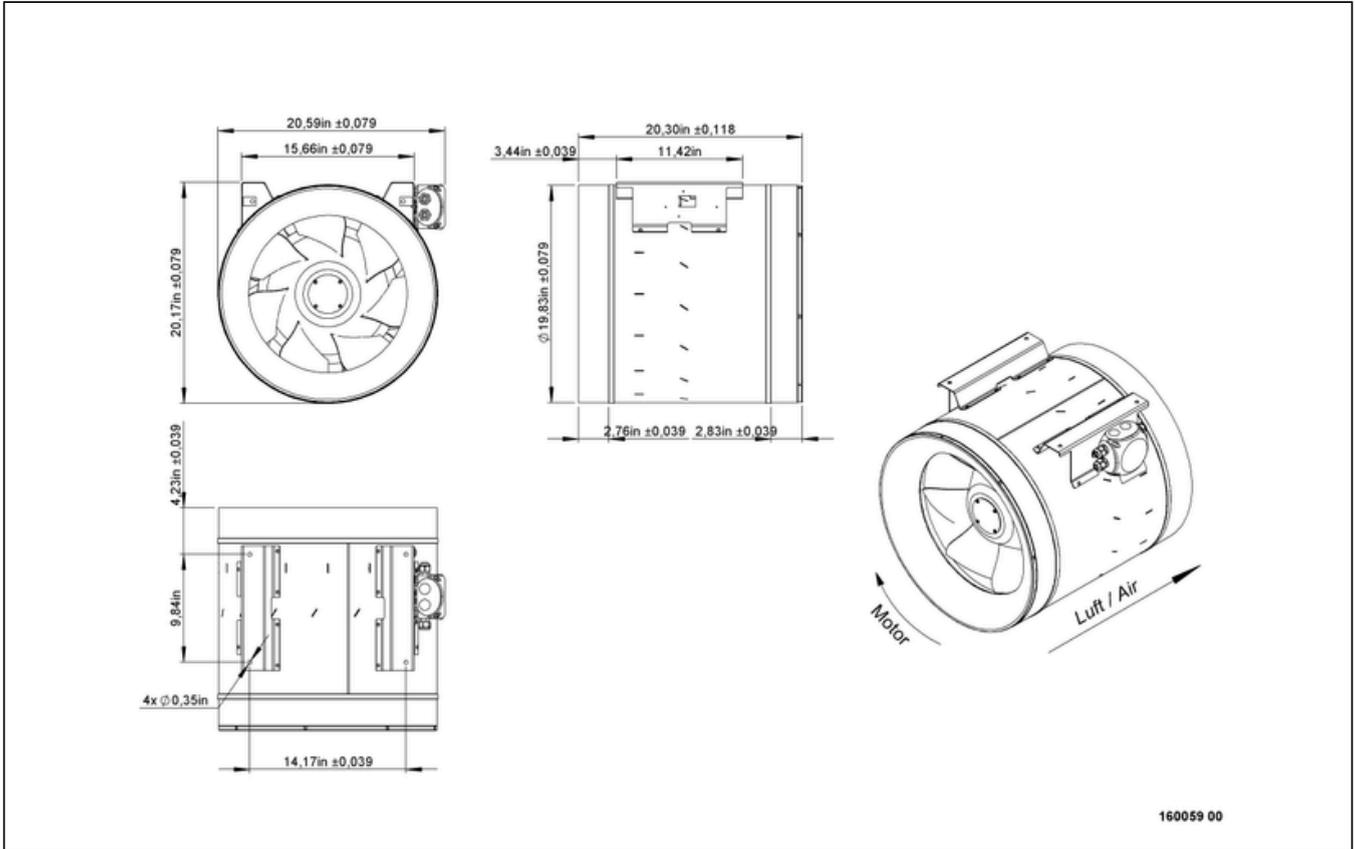


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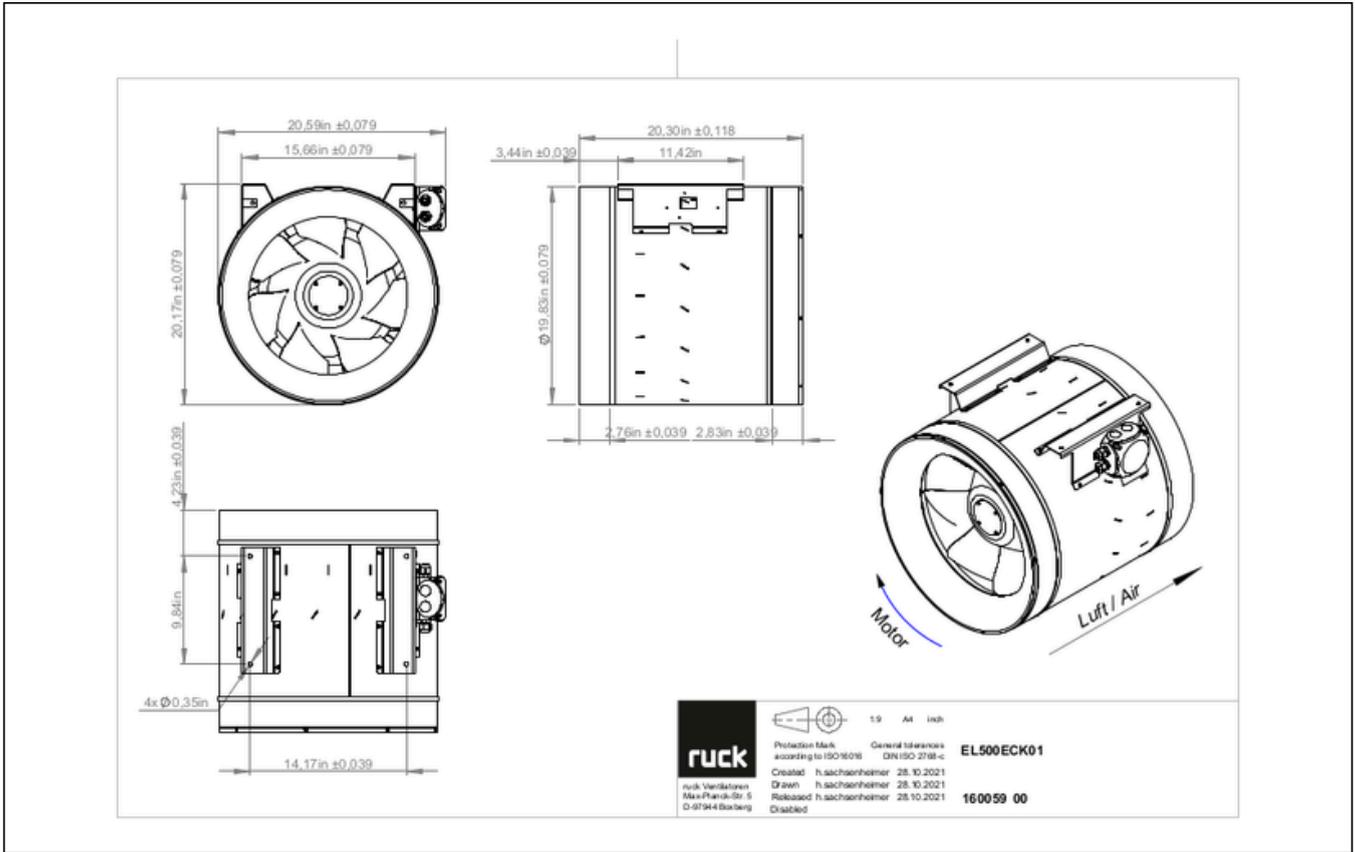
CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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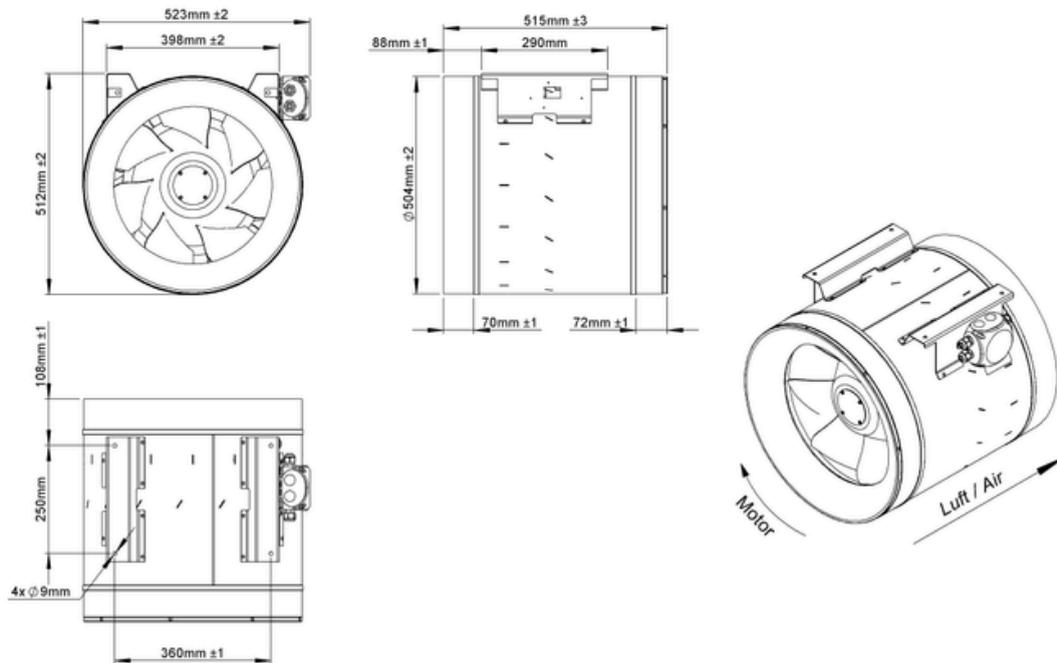
Protection Mark according to ISO 9006
 ruck Ventilatoren
 Max-Planck-Str. 5
 D-97944 Boxberg

1:9 All inch
 General tolerances
 DIN ISO 2768-c
 EL500ECK01
 Created: h.sachsenheimer 28.10.2021
 Drawn: h.sachsenheimer 28.10.2021
 Released: h.sachsenheimer 28.10.2021
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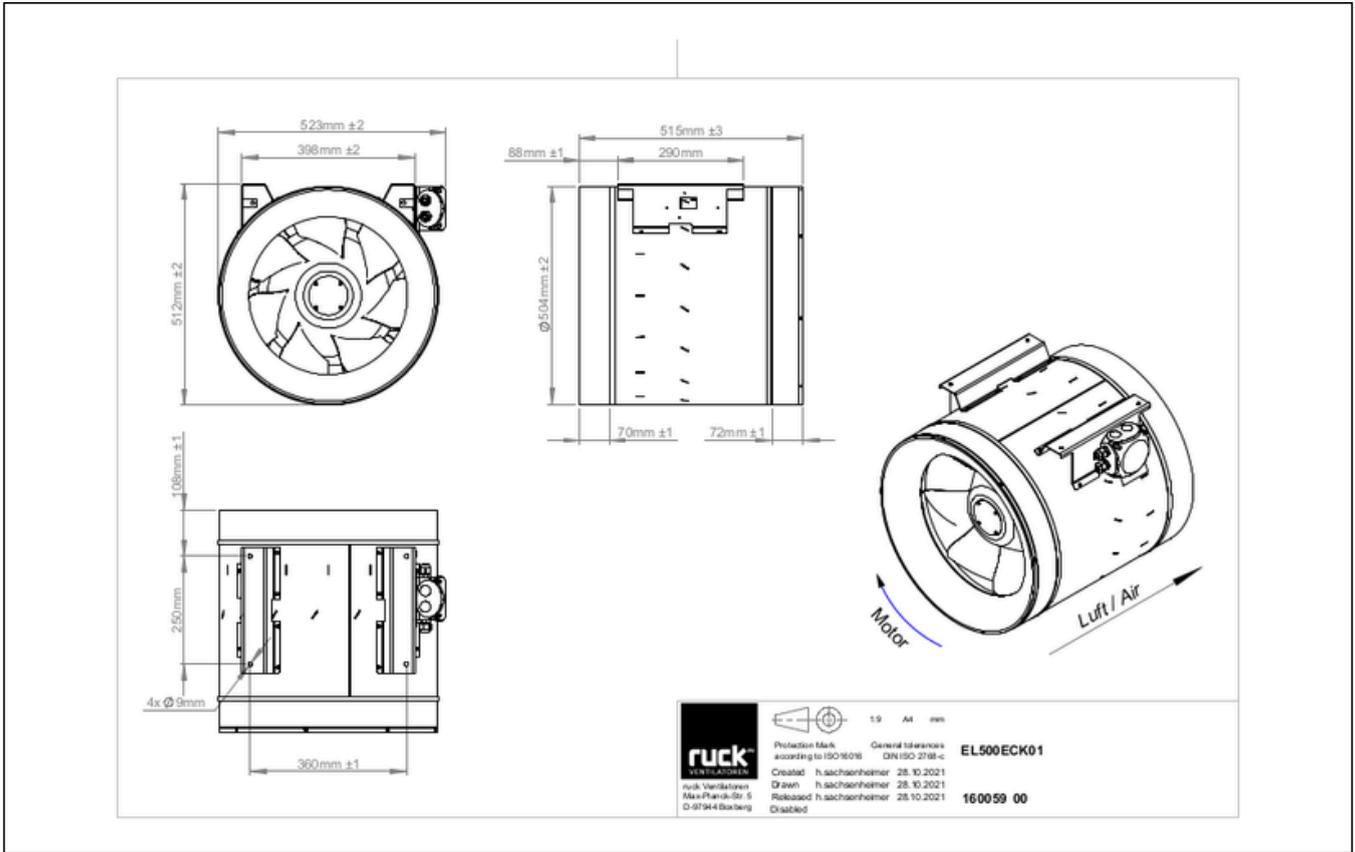


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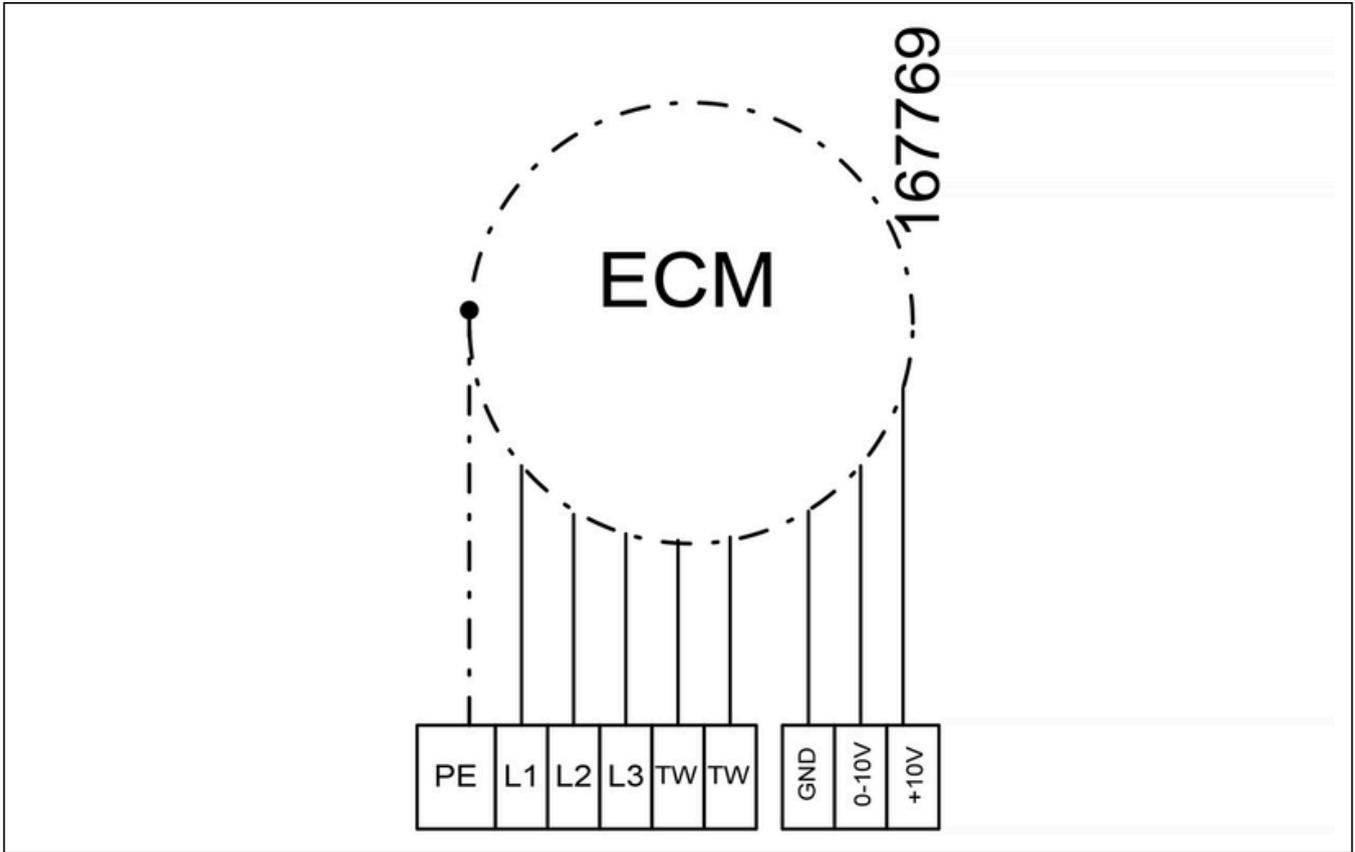
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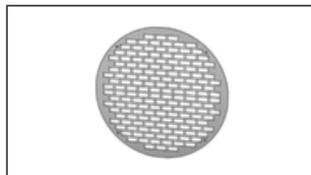
MECHANICAL ACCESSORIES

VM 500 | 118094



- Fast clamps for sound decoupling and sealing
- Galvanized steel sheet, 5 mm Neopren gasket
- 1 Pack = 2 pieces

SG 500 02 | 119191



- Inlet protection grille for Etaline
- Galvanized steel sheet

SDS 500 | 172912



- Rigid tube silencer
- Galvanized steel sheet
- Sound insulation packing 50 mm (mineral wool)



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ELECTRICAL ACCESSORIES

GS 03 | 107633



- Device switch
- $U_{max} = 400\text{ V}$, $I_{max} = 25\text{ A}$
- Switching capacity $400\text{ V } 3\text{-} = 7,5\text{ kW}$
- Protection class IP 55

MTP 20 | 128146



- Potentiometer $10\text{ k}\Omega$
- Switching contact $1\text{A}/250\text{V AC}$ - $2,5\text{A}/12\text{V DC}$
- Max. ambient temperature $50\text{ }^\circ\text{C}$
- VDE

MTP 30 | 143289



- Stepped potentiometer $10\text{ k}\Omega$
- Step 1 + 2 settable $10\% - 100\% \text{ Vdc}$
- Step 3 $100\% \text{ Vdc}$
- Supply voltage $+10\text{ Vdc}$

MTP 40 | 147359



- Potentiometer $10\text{ k}\Omega$
- Connection in terminal box
- Max. ambient temperature $50\text{ }^\circ\text{C}$
- PU: 20 pieces

CON P1000 | 115259



- Constant pressure control
- Actual value display possible via optional control unit
- Output $0\text{-}10\text{ V DC}$ + FC enable + setpoint reached
- Pressure setting by means of decade switch

MTP 50 | 168752



- Potentiometer with multifunction output
- $230\text{ VAC } \pm 10\% / 50\text{-}60\text{ Hz}$
- Selectable output: $1\text{-}10\text{ VDC}$ / $2\text{-}20\text{ mA}$ / $10\text{-}100\% \text{ PWM}$
- Min. and max. output value adjustable

UniControl 01 | 175813



- Universal fan controller
- Output signal $2 \times 0\text{-}10\text{V}$
- Main supply $100\text{V} - 240\text{V } 50/60\text{Hz}$



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