

EM DUO 150L EC 01

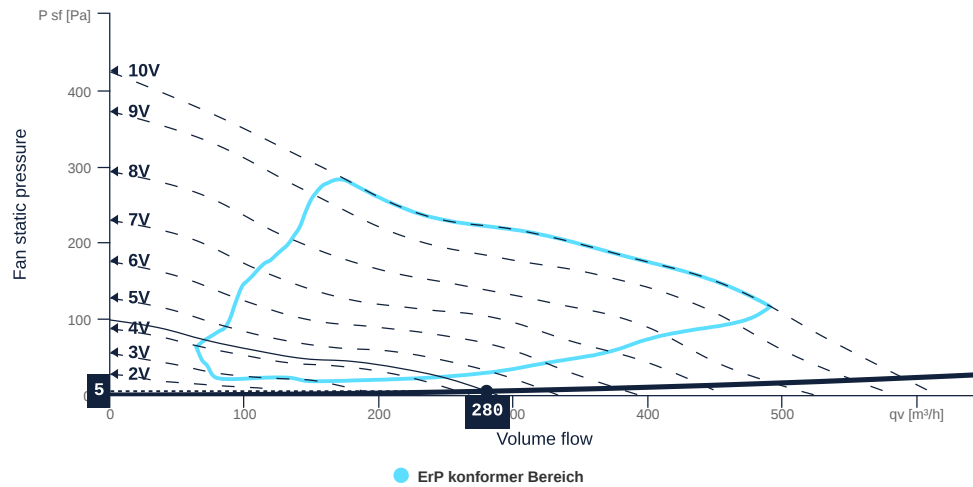
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- Efficient diagonal fan, redundant operation
- Optimally tuned and CFD-optimized aerodynamics
- Soundproof housing made of galvanized sheet steel
- High efficiency EC motor, steplessly controllable
- Built-in ETAMASTER with highest efficiency
- Conveyed medium temperature up to 40 °C in continuous operation



FAN CURVES

Name	Value	Unit
Volume flow	280	m³/h
Pressure	5	Pa



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TECHNICAL SPECIFICATIONS

Name	Value	Unit	Formula symbol
Volume flow	280	m³/h	QV _{calc}
Pressure	5	Pa	psf _{calc}
Fan pressure	16	Pa	pf
Fan static pressure	5	Pa	psf
Current consumption Motor	0	A	I _e
Electrical power consumption	11	W	P _{ek}
Control voltage	4	V	U _{ctrl}
Rotation speed	1814	1/min	N
Total static efficiency	3	%	etaFaPeK
Total efficiency	11	%	etatPeK
SFP (entire device)	146	W/(m³/s)	sfp _{device}
Sound power level inlet	48	dB(A)	LwA5
Sound power level outlet	48	dB(A)	LwA6
Sound power level housing radiation	41	dB(A)	LwA2

SOUND DATA

Sound power	mid-frequency tape										Unit	Formula symbol
	Σ	63	125	250	500	1000	2000	4000	8000	16000		
suction	49	26	40	44	41	41	40	36	28	16	dB(A)	LwA5
blowout	49	34	40	43	41	43	38	38	28	17	dB(A)	LwA6
Casing break out	41	31	34	39	32	24	14	6	5	5	dB(A)	LwA2

SOUND PRESSURE LEVEL CALCULATOR

Name	Value	Unit
Enveloping surface	Halphsphere	
Distance	3	m

Sound pressure	NR	mid-frequency tape										Unit	Formula symbol
		Σ	63	125	250	500	1000	2000	4000	8000	16000		
suction	24	31	8	22	26	24	23	22	19	10	0	dB(A)	LwA5
blowout	25	31	17	23	25	24	25	21	20	11	0	dB(A)	LwA6
Casing break out	19	24	13	17	22	15	6	0	0	0	0	dB(A)	LwA2



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GENERAL DATA

Name	Value	Unit	Formula symbol
Labeling	CE		
Duct size	-		WxH _{duct}
Pipe connection size (DN)	DN150		DN
Rated voltage (entire device)	230	V	U _{rated}
Phases (entire device)	1~		phase
Electrical protection (entire device)	6 A		fuse
Housing material	Galvanized steel		mat _{casing}
Impeller material	Plastic		mat _{impeller}
Weight	32	kg	m
Nominal air flow rate, nominal point m ³ /h	352.8	m ³ /h	q _{v,nom}
Nominal external pressure, static	196.4	Pa	p _{s,nom}
Fan type	Diagonal		Fan _{type}
Category / Installation situation	A		cat

ERP DATA (LOT 6)

Name	Value	Unit	Formula symbol
Nominal air flow rate, nominal point m ³ /s	0.1	m ³ /s	q _{v,nom}
Actual electrical input power, nominal point	0.06	kW	P _{e,nom}
Face velocity, nominal point	5.6	m/s	v _{nom}
Nominal external pressure, static	196.4	Pa	p _{s,nom}
supply air fan static efficiency, nominal point	55.9	%	η _{es,SUP}
Highest external air leakage rate	1.04	%	
Enclosure sound level, nominal point	56	dB(A)	L _{WA2}
Rating	Product is compliant 2018		

MAXIMAL DATA

Name	Value		Unit	Formula symbol
	50 Hz	60 Hz		
Max. power consumption (device)	69	69	W	P _{ed,max}
Max. operating current (device)	0.6	0.6	A	I _{ed,max}
Max. speed	3840	3840	1/min	n _{max}
Max. stat. efficiency	32.1	32.1	%	η _{es}
Max. fan efficiency	35.5	35.5	%	η _e
Max. flowrate	615	615	m ³ /h	q _{v,max}
Max. stat pressure	420	420	Pa	p _{st,max}
Max. medium temperature	40	40	°C	T _{m,max}
Max. environment temperature	40	40	°C	T _{amb,max}
Min. environment temperature	-30	-30	°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		ORM (Out)		install
Rotation direction		right		rotation
Isolation class		ISO F		ISOclass
Motor-protection		TEC		protectmotor
Protection class		IP54		IPmotor
Is pole-changeable		No		polexch
Type of power supply		AC 1~		pwrsupmotor
Rated voltage	230		V	U _{rated, f1}
Rated current	0.56		A	I _{rated, f1}
Shaft power	70		W	P _{out, f1}
Speed	3655		1/min	n _{f1}
Min. temperature	-30		°C	T _{motor, min}
UL-Certification motor		None		ULcert

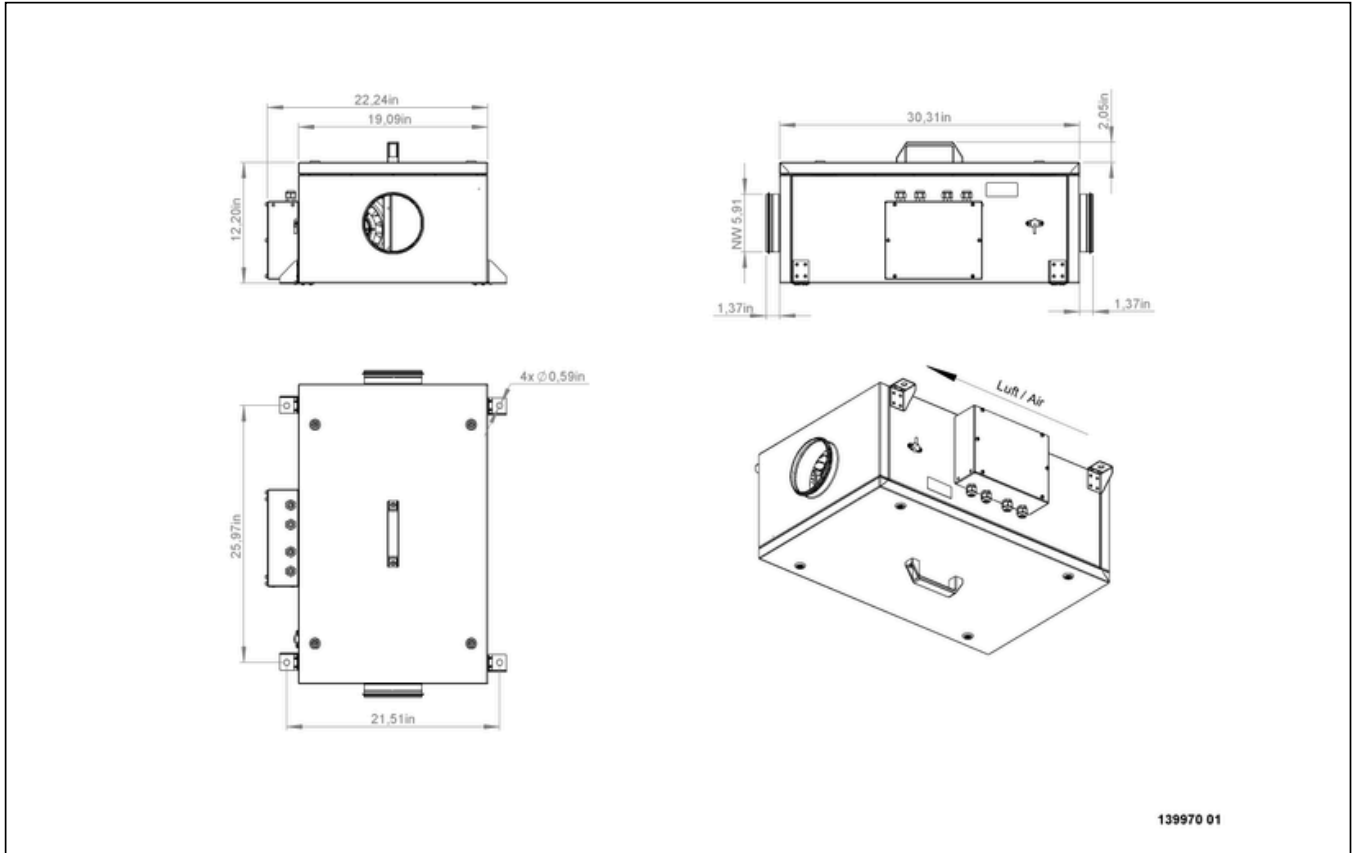


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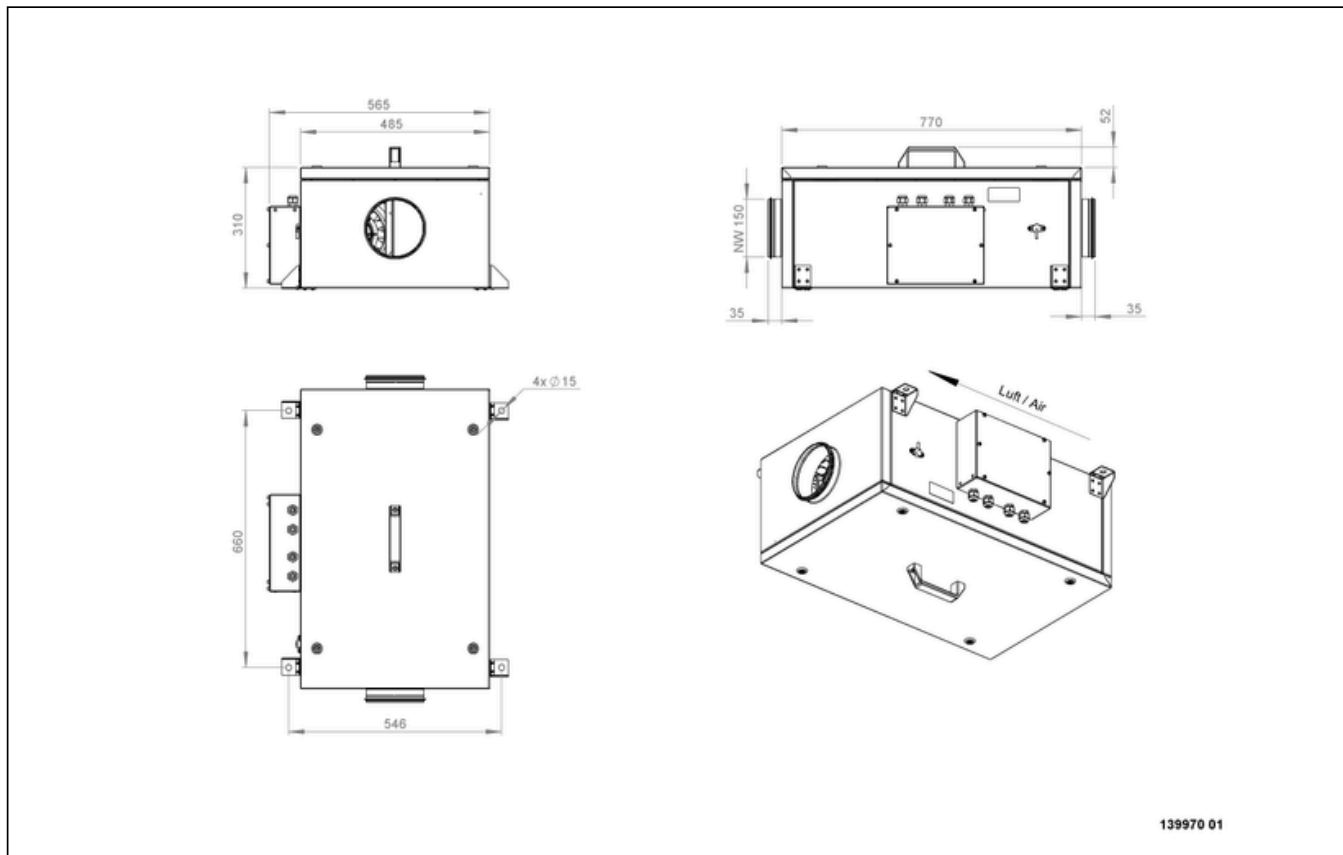
CIRCUIT DIAGRAMS / DIMENSIONAL DRAWINGS



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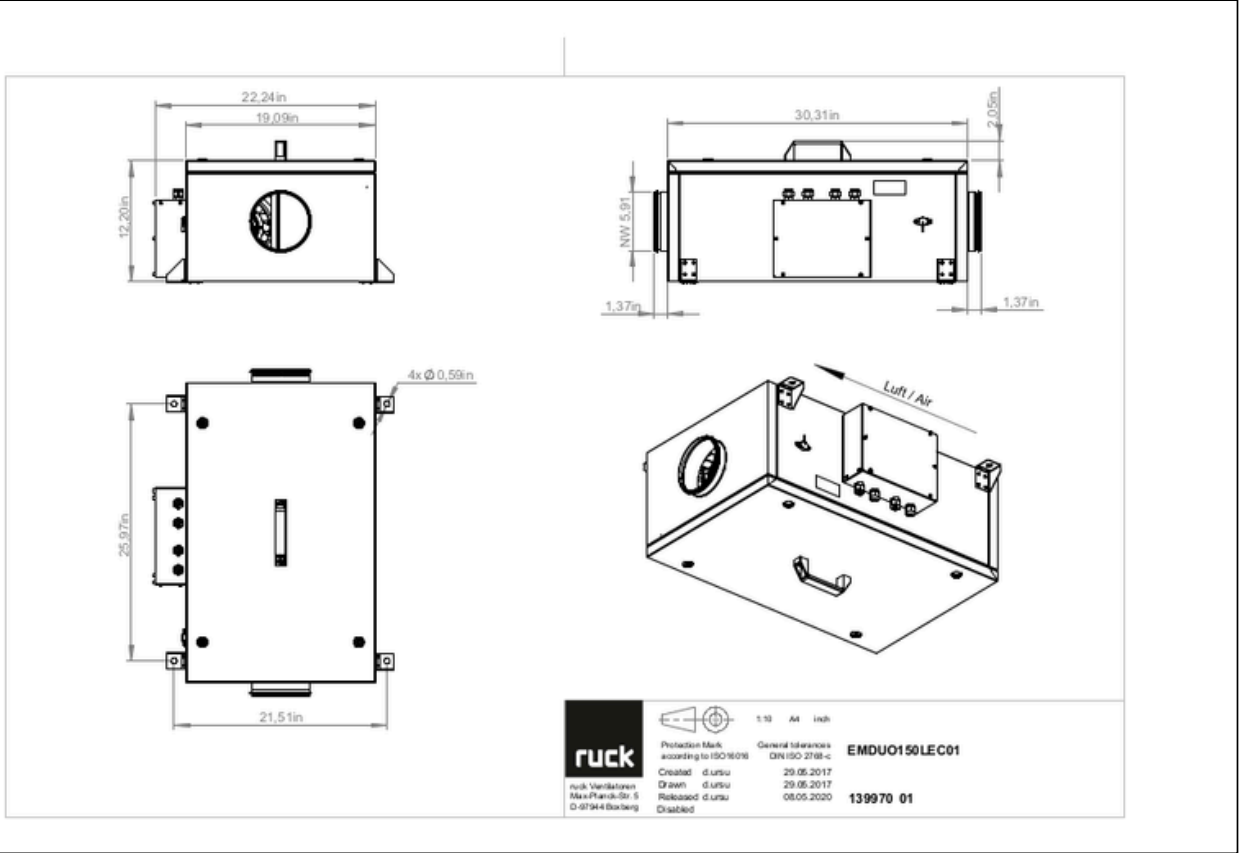
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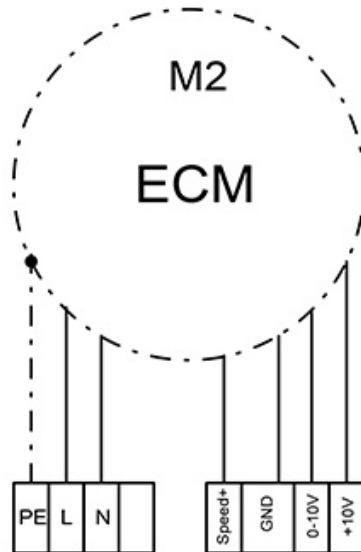
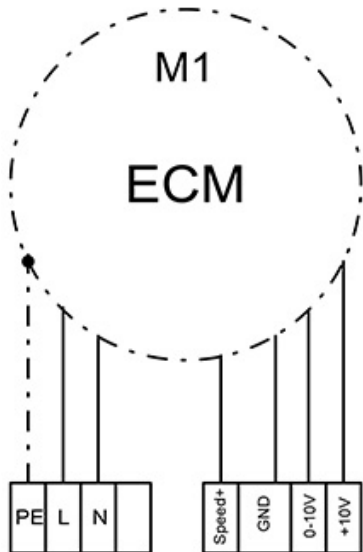
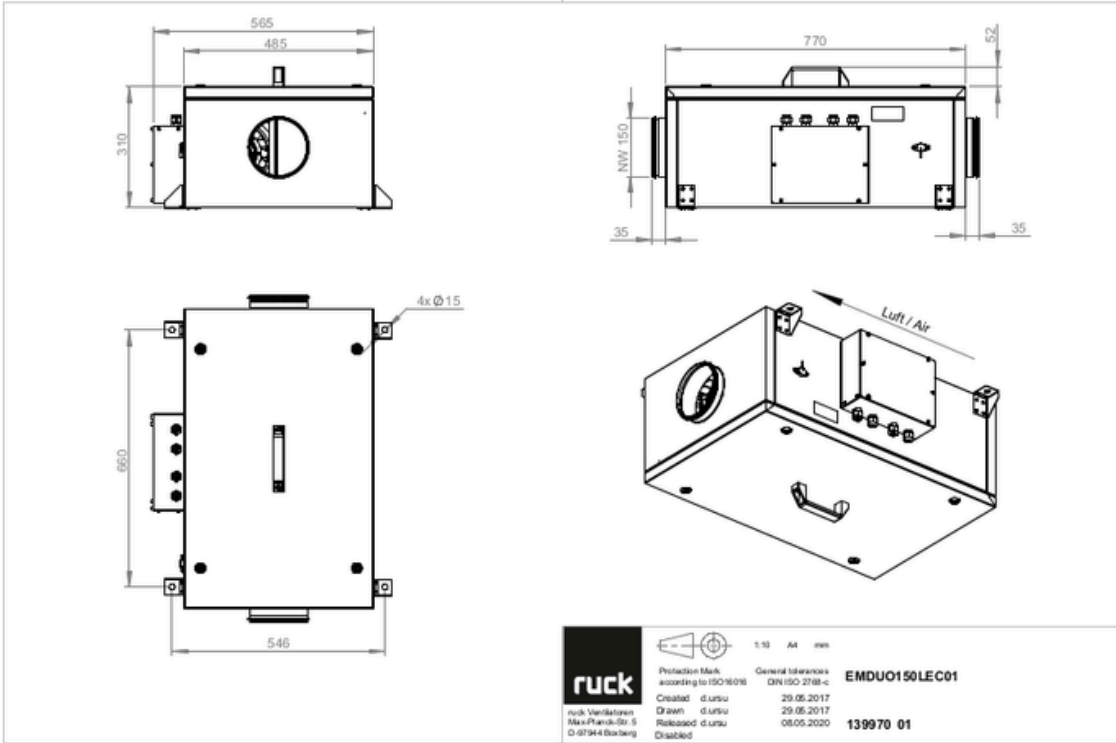
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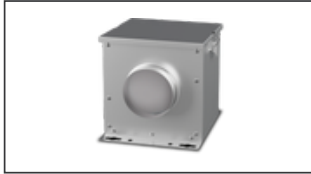
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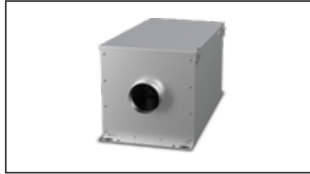
MECHANICAL ACCESSORIES

FV 150 | 112680



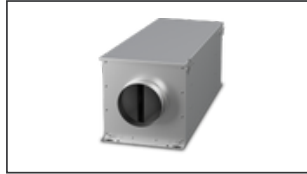
- Air filter box with mat filter ISO Coarse 45 % (G3)
- Toggle-type fastener

FT 150 | 112842



- Air filter box for pocket filter
- Toggle-type fastener
- Galvanized steel sheet housing
- Without filter

FTW 150 | 112851



- Air filter box with pocket filter M5
- Integrated warm water heating coil
- Galvanized steel sheet housing
- Toggle-type fastener

RSK 150 | 102660



- Back draught shutter for tube fitting
- Galvanized steel sheet housing
- Aluminum flaps

RSK 150D | 113484



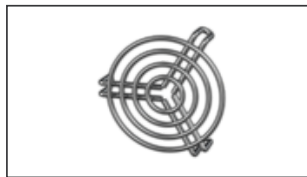
- Back draught shutter for tube fitting
- Galvanized steel sheet housing
- Aluminum flaps
- Integrated gasket

VM 150 | 102648



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

SG 150 01 | 169590



- Protection grille for tube connection
- Galvanized wire

SDS 150 | 169604



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

SDF 150 | 169641



- Flexible tube silencer
- Galvanized steel sheet
- Sound insulation packing 50 mm



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ELECTRICAL ACCESSORIES

GS 03 | 107633



- Device switch
- $U_{max} = 400\text{ V}$, $I_{max} = 25\text{ A}$
- Switching capacity $400\text{ V } 3\sim = 7,5\text{ kW}$
- 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 $0-10\text{ V DC}$ + FC enable + setpoint reached
- Pressure setting by means of decade switch

MTP 50 | 168752



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



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