Operating instructions DVC-P / Bedienungsanleitung Druckregler DVC-P

with integrated pressure sensor - Art-No.: 30588 / mit eingebautem Drucksensor - Art-Nr.: 30588

GB Operating instructions DVC-P 2 - 13

DE Bedienungsanleitung Druckregler DVC-P 14 - 25

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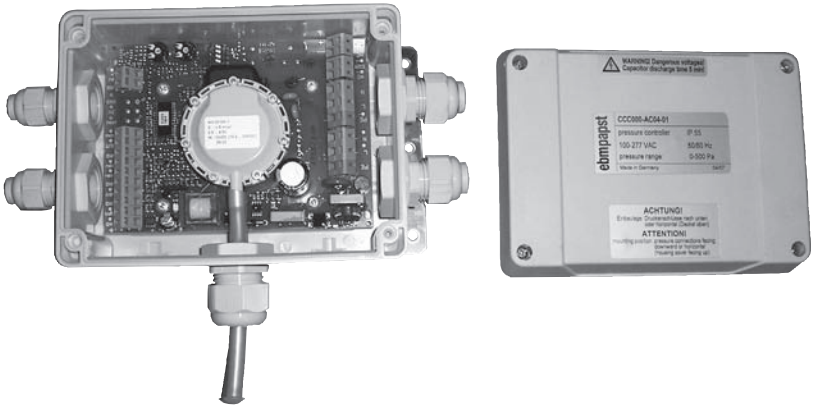
Terminals and Pin

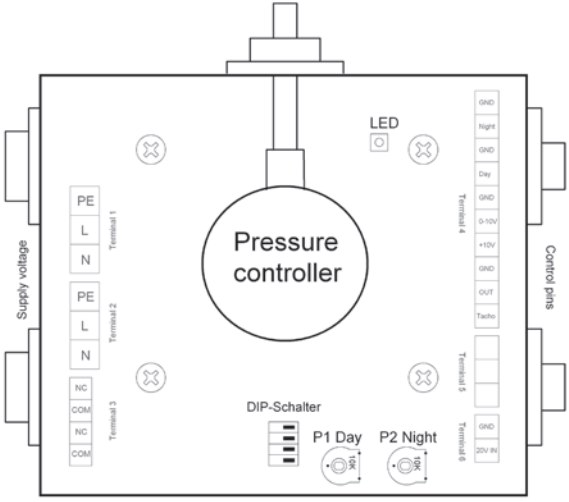
Technical data



Rated voltage	100-277 V AC
Line frequency	50/60 Hz
Max. input power P1	3 W
Control range	50-500 Pa
Maximum pressure	200 mBar
Medium	air, neutral gases
Interference emission	EN50081-1
Interference immunity	EN61000-6-4
Leakage current	< 3,5 mA
Protection class	IP55

Mounting and electrical connection may only be done by authorized and trained personnel and in accordance with valid regulations.
All general rules regarding safety of work have to be respected.

Terminals and Pin



	Pin	Function
Terminal 1	PE	PE connector
	L	Mains 50/60 Hz, Phase
	N	Mains 50/60 Hz, neutral connecto
Terminal 2	PE	PE connector
	L	Mains 50/60 Hz, Phase
	N	Mains 50/60 Hz, neutral connector

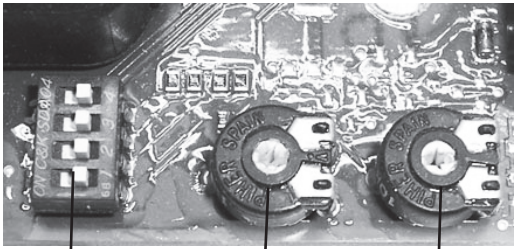
Terminal 1 and 2 are internal linked to loop the line supply to the fan.

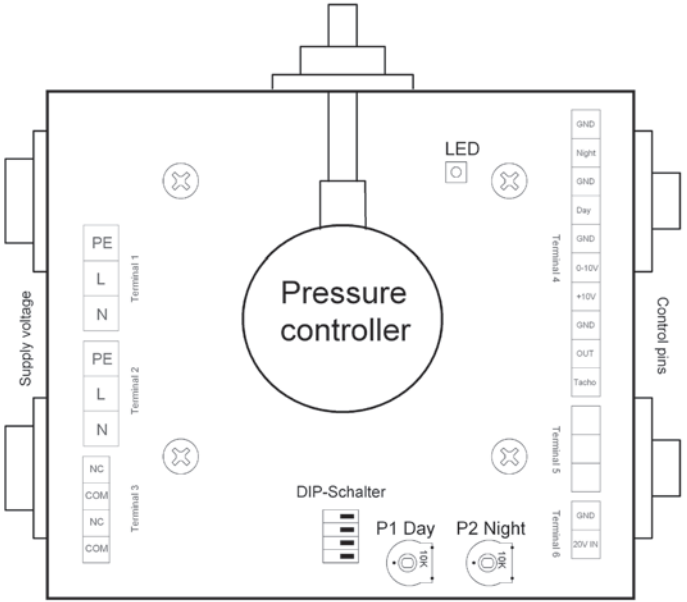
***Terminal 3**	NC	Alarm relay „NC“
	COM	Alarm relay „COM“
	NC	Alarm relay „NC“
	COM	Alarm relay „COM“

* Internal linked to loop signal from fan to system control.

Terminal 4	GND	Selector input to activate the pre-set setpoints „DAY“ and „NIGHT“. The inputs are low-active.
	NIGHT	
	GND	
	DAY	
	GND	External potentiometer
	0-10V	External potentiometer
	+10V	External potentiometer
		Supply 10V (-10%), 10 mA
	GND	GND
	OUT	0-10V output for open-loop control of fan
	Tacho	Tacho output from fan
Terminal 5		not connected
Terminal 6	GND	GND
	20V IN	DC Voltage (optional)
		with reverse polarity protection

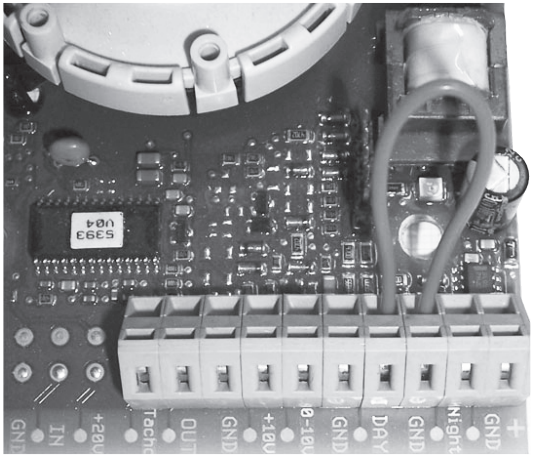
Terminals and Pin

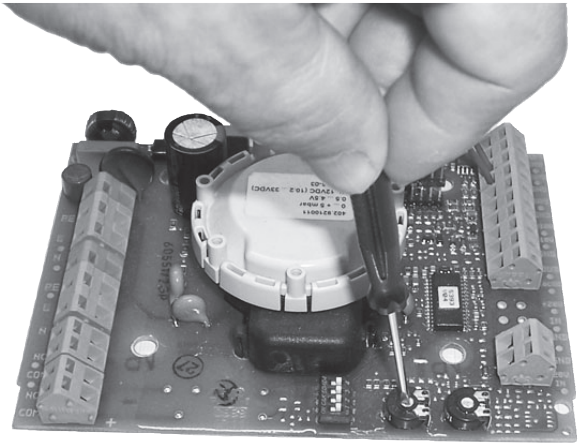




DIP-switch	This setting is recommended for pressure control with constant- as well as with variable air flow. Adjustment only factory-made. **No local adjustment necessary!**
P1 DAY	Setpoint adjustment Connected over terminal 4 „DAY“
P2 NIGHT	Setpoint adjustment Connected over terminal 4 „NIGHT“
LED	Advice state of readiness

Setpoint adjustment

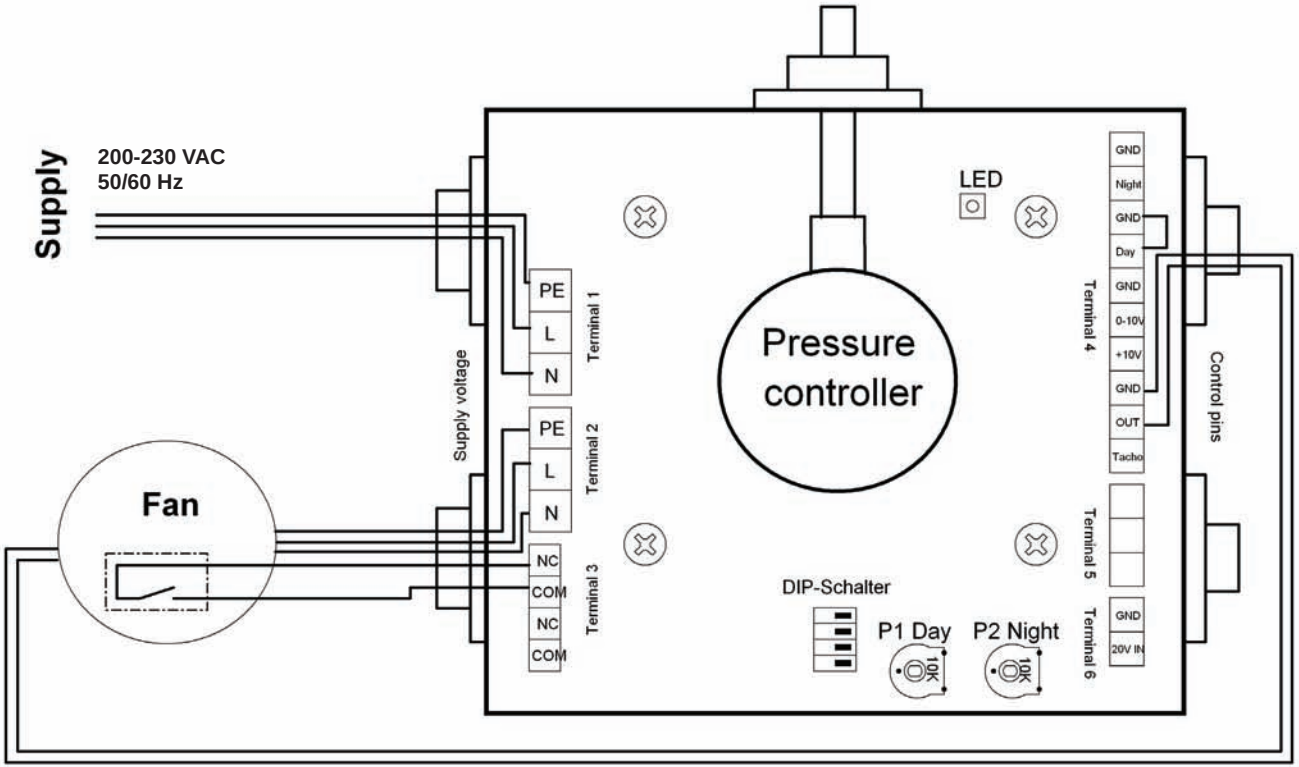




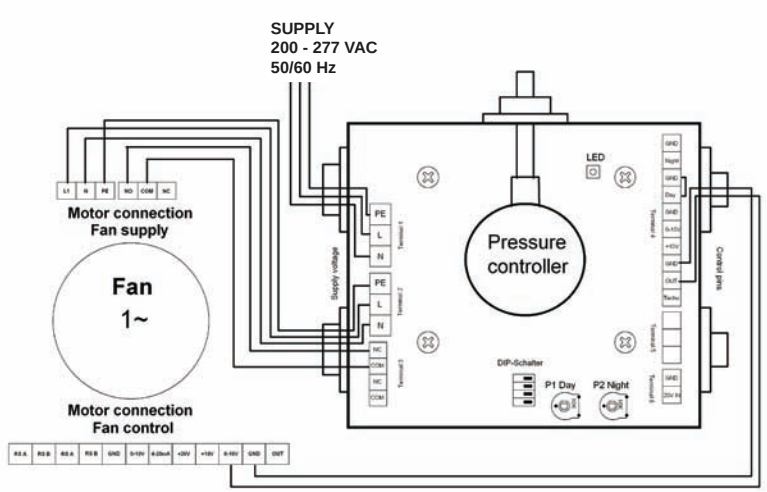
Factory-made there is a bridge on terminal 4 between „DAY“ and „GND“.
Therefore potentiometer P1 „DAY“ is activated and there is the setpoint adjustable.

To guarantee protection class IP55 it is necessary to close the housing correctly!

Factory-made Wiring 1~ / Size 225 P - 400 P



Factory-made Wiring 1~ / Size 450 PK



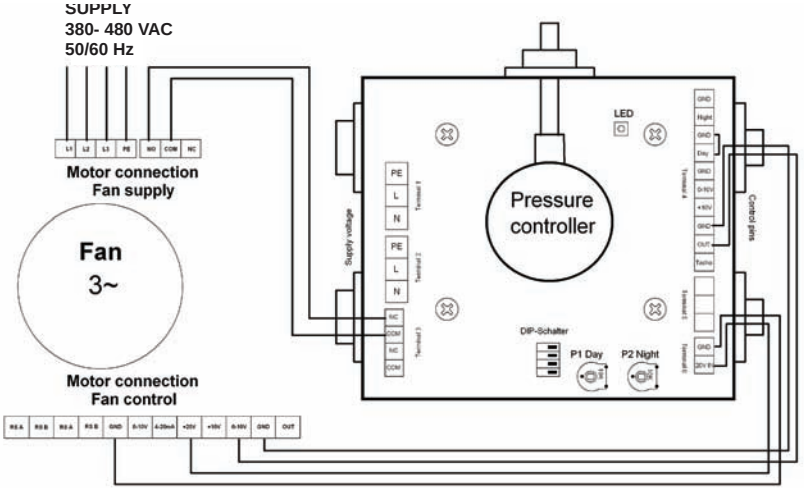
Terminal motor control side

Pin	Function
RS A	RS485 interface for ebmBus
RS B	RS485 interface for ebmBus
GND	GND
0-10V	Control-/actual value point
4-20mA	Control-/actual value point
+20V	Supply for ext. sensor DC (+/- 20%)@50 mA
+10V	Supply ext. potentiometer DC (+10%)@10 mA
0-10V	Control-/actual value point
GND	GND
OUT	Master output 0-10V max. 3 mA

Terminal motor supply side

Pin	Function
NC	Alarm relay, break for failure
COM	Alarm relay, Common (2A, 250VAC, AC1)
NO	Alarm relay, make for failure
L1	Mains 50/60 Hz, Phase
N	Mains 50/60 Hz, neutral connector
PE	PE connector

Factory-made Wiring 3~ / Size 450 P - 630 P



Terminal motor control side

Pin	Function
RS A	RS485 interface for ebmBus
RS B	RS485 interface for ebmBus
GND	GND
0-10V	Control / actual value input
4-20mA	Control / actual value input
+20V	Supply for ext. sensor DC (+/- 20%)@50 mA
+10V	Supply ext. potentiometer DC (+10%)@10 mA
0-10V	Control / actual value input
GND	GND
OUT	Master output 0-10V max. 3 mA

Terminal motor supply side

Pin	Function
NC	Alarm relay, break for failure
COM	Alarm relay, Common (2A, 250VAC, AC1)
NO	Alarm relay, make for failure
L1	Mains L1
L2	Mains L2
L3	Mains L3
PE	PE connector

Connection of the Pressure Sensor Pipes

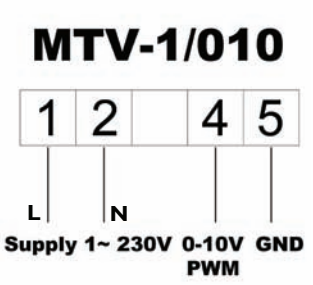
<<Grey: + (higher pressure level) atmosphere

<<Blue: - (lower pressure level) duct

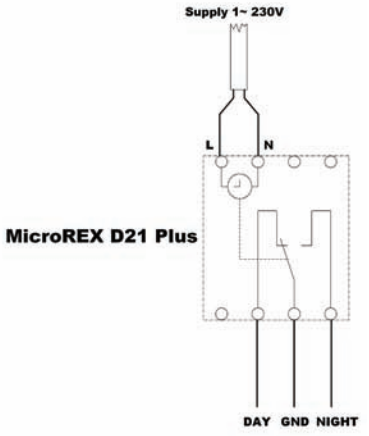
The factory-made plug must be removed!

Connection Accessory optional

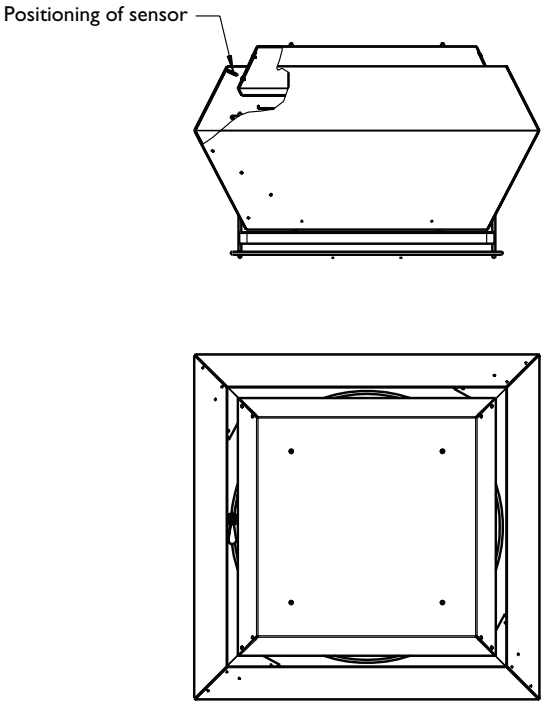
Connection of external potentiometer for setpoint adjustment



Connection of external clock timer via DAY- und NIGHT-contact



Air flow calculation

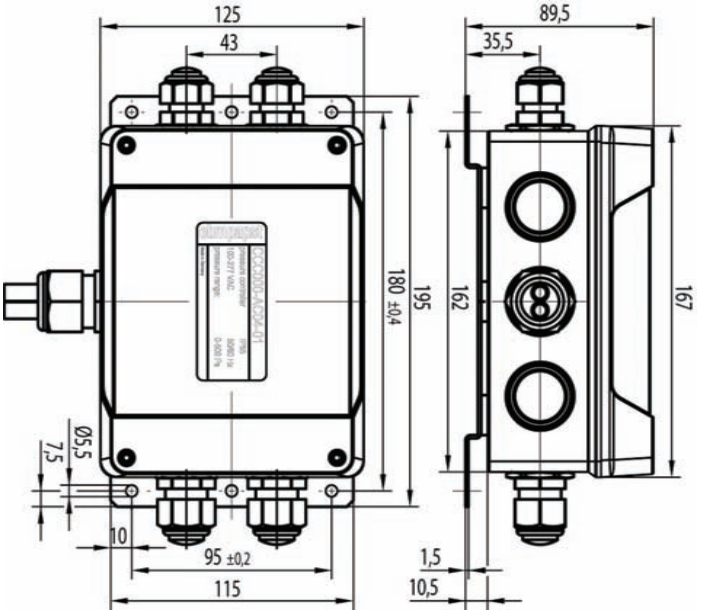


Size	Open diameter
190/225	0,034812 m²
310	0,042768 m²
355	0,139150 m²
400	0,099478 m²
450/500	0,139105 m²
560/630	0,285299 m²

Example:

3 m/s x 0,285299 m² = 0,856 m³/s

Dimensions



In order to make sure the pressure control unit operates proberly, only two mounting positions are recommended:

1.) Horizontal installation with mounting angle facing down

2.) Vertical installation with pressure terminals facing down

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