



# Technical Datasheet

## Duct Pressure Controller iCM500-DP



SCHAKO Group

## 1 Technical Data

<b>General</b>	
Operating temperature	+15 °C to +40 °C
Storage temperature	-20 °C to +65 °C
Recovery time	5 to 10 s
Humidity	≤ 80 % (relative, non-condensing)
Overvoltage category	II
Degree of contamination	2
Protection Class	Class II
Environment	dry indoor areas
Altitude	≤ 2000 m above sea level
<b>Housing</b>	
Ingress Protection Rating	IP 20
Material	Galvanized sheet steel, coated on one side
Color	similar RAL 9002
Dimensions (L × W × D)	177 × 103 × 58 mm
Weight	ca. 500 g
<b>Low-voltage power supply input X1</b>	
Input voltage range	24 V AC ± 10 %
Frequency range	47 to 63 Hz (AC)
Input voltage range	22,8 to 26,4 V DC
Rated current	1,25 A
Rated power	30 W
Connection type	Socket for hollow plug 5,5 × 2,5 mm
Fusing (internal)	Short circuit, overload, overvoltage
<b>Hat rail power supply unit (optional)</b>	
Type	Mean Well HDR-30-24
Input voltage range	85 to 264 V AC
Frequency range	47 to 63 Hz (AC)
Rated current	1,5 A
Connection type	Screw terminals
Wire cross-section (rigid/flexible)	0,08 to 1,5 mm <sup>2</sup>
Fusing (internal)	Short circuit, overload, overvoltage
<b>Plug-in Power Supply Unit (optional)</b>	
Input voltage range	80 to 264 V AC
Frequency range	47 to 63 Hz (AC)
Efficiency	88,5 %
AC current	1 A / 115 V AC

	0,6 A / 230 V AC
Output voltage	23,52 to 24,48 V DC
Rated current	1,25 A
Rated power	30 W
<b>Peribus X2</b>	
Quantity	1
Output power (max.)	1,2 W
<b>Relay Outputs X4</b>	
Quantity	2
Contact type	Changeover contact (SPDT)
Switching voltage (max.)	24 V AC / DC
Continuous current (max.)	3 A, external protection required
Wire cross-section (rigid/flexible)	0,08 to 1,5 mm <sup>2</sup>
<b>Digital Inputs X4</b>	
Quantity	2
Input voltage	24 V AC / DC
Input current (max.)	≤ 10 mA
Switching threshold (active)	1,2 V to 28 V DC
Switching threshold (inactive)	0 V to 1,2 V DC
Auxiliary voltage (internal)	24 V DC for external switching contact
Fusing (internal)	Short circuit, overload, overvoltage
Wire cross-section (rigid/flexible)	0,08 to 1,5 mm <sup>2</sup>
<b>Differential Pressure Sensor</b>	
Quantity	1
Pressure range	0 to 300 Pa -150 to +150 Pa 10 to 1000 Pa
Response time	< 10 ms
Sensor burst pressure	0,3 bar
<b>Analog Output X6</b>	
Quantity	1
Output voltage	0 V to 10 V DC ± 1%, freely programmable
Resolution	10 bit
Load resistance	$R_L \geq 500 \Omega$
Fusing (internal)	Short circuit, overload, overvoltage
Wire cross-section (rigid/flexible)	0,08 to 1,5 mm <sup>2</sup>
<b>High-speed Modulating Damper Actuator X7</b>	
Quantity	1
Nennspannung	24 V AC / DC
Torque	4 Nm, optionally 8 Nm

Running time	2.5 s at 4 Nm, 4 s at 8 Nm for 90° rotation
Control signal	Analog, 0(2) to 10 V DC
Feedback	Analog, 0(2) to 10 V DC
Resolution	< 0,5°
<b>RS-485 Interface X8</b>	
Quantity	1
Data rate (max.)	115 kBaud
Protocols	Modbus RTU
Cable	e.g. JY(St)Y 2 × 2 × 0.8 shielded

Table 1: Technical Data

## 2 Terminal Diagram iCM500-DP

<p><b>X1</b></p>	<p>Power supply 24 V DC / 1 A / 24 W</p>	
<p><b>X2</b></p>	<p>Communication interface for SCHNEIDER devices</p>	
<p><b>X3</b></p>	<p>Communication interface for airflow sensor AFS100</p>	
<p><b>X4</b></p>	<p>DIN1 ON DIN2</p> <p>Wiring by external potential-free contact (relay) - Default</p> <p>DIN1 OFF DIN2</p> <p>Wiring by external Voltage 24 V AC / DC</p> <p>Terminal configuration: 1: Relais 1, NO 2: Relais 1, NC 3: Relais 1, COM 4: Relais 2, NO 5: Relais 2, NC 6: Relais 2, COM 7: DIN 1, DIN - 8: DIN 1, DIN + 9: DIN 2, DIN - 10: DIN 2, DIN +</p>	
<p><b>X5</b></p>	<p>Connection with switched phase for the fume cupboard light</p> <p>Terminal configuration: 1: L 2: L'</p>	
<p><b>X6</b></p>	<p>Analogue output for actual value or frequency inverter</p> <p>Terminal configuration: 1: 0 V to 10 V DC 2: GND</p>	
<p><b>X7</b></p>	<p>Connection for actuator</p> <p>Terminal configuration: 1: PGND 2: +24 V DC / 0.5 A 3: Y-Signal 2 V to 10 V DC 4: SGND 5: U-Signal 2 V to 10 V DC</p>	
<p><b>X8</b></p>	<p>RS485 without termination resistor „Standard“</p> <p>RS485 with a 120 Ω termination resistor without bias voltage</p> <p>RS485 with a termination resistor and bias voltage</p>	
<p><b>X9</b></p>	<p>SPS100</p> <p>Terminal configuration: 1: + 10 V DC / 10 mA 2: Signal 3: GND</p>	
<p><b>Commissioning Instruction:</b></p> <ul style="list-style-type: none"> <li>- The assembly and wiring may only be carried out by trained technician.</li> <li>- In the case of assembly, wiring and commissioning, the recognized rules of technology, in particular the safety and accident prevention regulations must be observed.</li> <li>- Observe assembly and operating instructions.</li> </ul>		<p>① Airflow sensor ② Damper with actuator ③ Sash position sensor ④ iCM500</p>
<p><b>FUME CUPBOARD CONTROLLER</b> with integrated monitor acc. to DIN EN 14175</p> <p>Terminal diagram, complete      <b>iCM500</b></p> <p><b>SCHNEIDER</b>      Rev.: 1.6      Date: 2025-05-21</p>		



The information and data contained in this documentation have been compiled to the best of our knowledge and in accordance with the current state of the art (subject to technical changes). The currently valid version applies. The proven properties of SCHNEIDER products are based on the use of the products recommended in this documentation. Diverging situations and individual cases are not taken into account, so that we cannot assume any warranty and liability.

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Do you have any questions? We look forward to your message:

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