

RUP: Differential-pressure controller/transducer

How energy efficiency is improved

Efficient control of the duct pressure for optimised system operation.

Areas of application

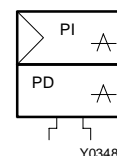
Measurement and/or control of differential pressures in positive-pressure or negative-pressure areas, e.g. in air ducts in combination with pneumatic control equipment (Centair) or with air-volume controllers in air-conditioning systems.

Features

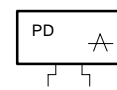
- Part of the Centair family of systems
- Conversion of pressure differentials into standard 0.2 to 1.0 bar signal by a pressure sensor
- PI controller
- Easy to use as PI controller is not in operation if the application is only as a transducer
- Ranges up to 500 and 4000 Pa
- Controller front panel is printed with circuit diagram for rapid identification of function
- Thermoplastic housing suitable for wall or top-hat rail mounting
- Compressed-air connections with Rp 1/8" female thread
- Complies with directive 97/23/EC Art. 3.3 on pressure equipment

Technical description

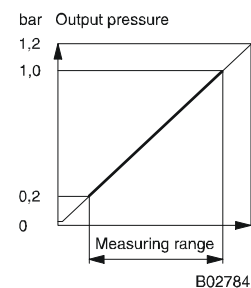
- Supply pressure 1.3 bar \pm 0.1
- Nozzle/ball system
- Linearity of output signal 2%
- Hysteresis of output signal 0.5%



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| Type | Measuring range Pa | Output pressure bar | Weight kg |
|-------------------------------------------------------------------|-----------------------|----------------------------------------|---------------------------|
| RUP 105 F001 | 0...500 | 0,2...1,0 | 0,15 |
| RUP 140 F001 | 0...4000 | 0,2...1,0 | 0,15 |
| Supply pressure | 1,3 \pm 0,1 bar | Linearity | 2% |
| Transducer via ext. restrictor \varnothing 0,2 mm ¹⁾ | | Hysteresis | 0,5% |
| Air capacity | 100 l _n /h | Max. pressure (low-press. connections) | 100 mbar |
| Air consumption | 50 l _n /h | Permissible ambient temp. | 0...55 °C |
| Transducer: air capacity, air consumption | 33 l _n /h | Wiring diagram | A08789 |
| P-band | 400% (fixed) | Dimension drawing | M297240 |
| Setpoint | 0...100% | Fitting instructions | MV 505658 |
| Integral action time | 0,5...3 s | | |
| Setpoint remote adjustment | 0,2...1,0 bar | | |

Accessories

0297354 000* Short R 1/8 connector for soft plastic tubing, internal \varnothing 4 mm.

0296936 000* Bracket for EN 60715, 35 \times 7,5 and 35 \times 15 rails

*) Dimension drawing or wiring diagram are available under the same number

1) In the RCP and RPP 20/RPJP 80 controllers, the restrictors (\varnothing 0,2 mm) are fitted at inputs 3 and 4.
See Section 60 on regulations concerning the quality of supply air, especially at low ambient temperatures.

When used as a duct-pressure controller

The pressure difference is converted by the pressure sensor into a standard signal (0,2...1,0 bar). This actual-value signal is compared to the setpoint X_s . The control deviation is compensated without permanent error by the PI controller. The setpoint X_s can be adjusted externally via connector 6, in which case the set value becomes the minimum limit.

When used as a transducer

The pressure difference is converted by the pressure sensor into a standard signal (0,2...1,0 bar). The output signal at connector 3 is proportional to the pressure difference. When the pressure is rising, the output pressure also rises.

По вопросам продаж и поддержки обращайтесь:

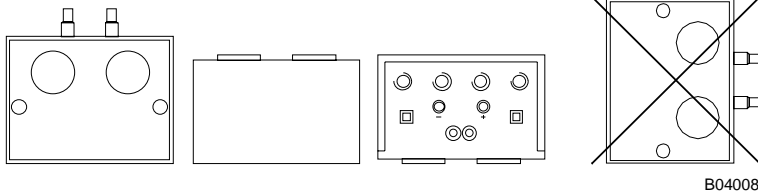
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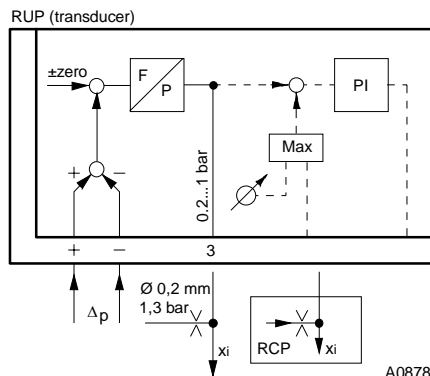
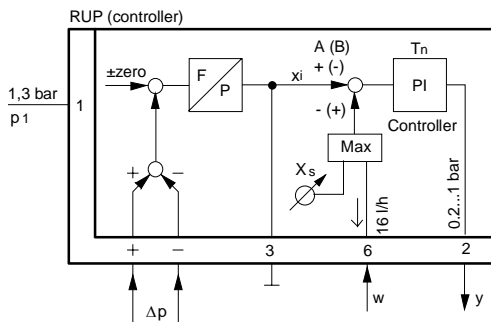
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Engineering and fitting instructions
Should not be fitted on its side.



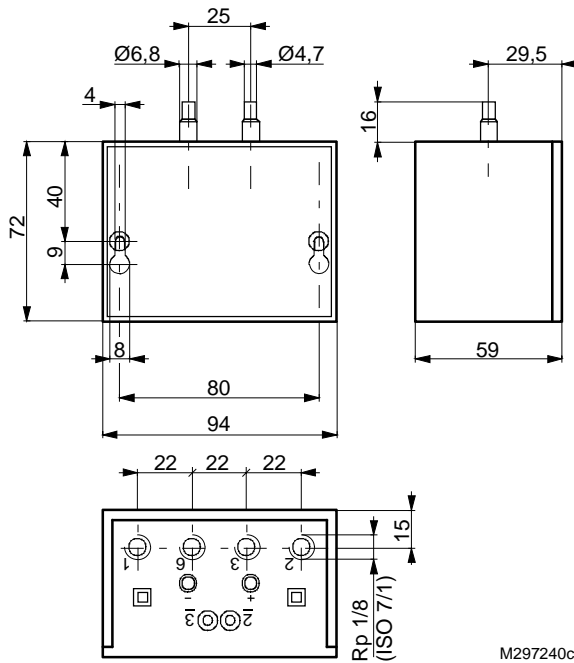
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Connection diagram



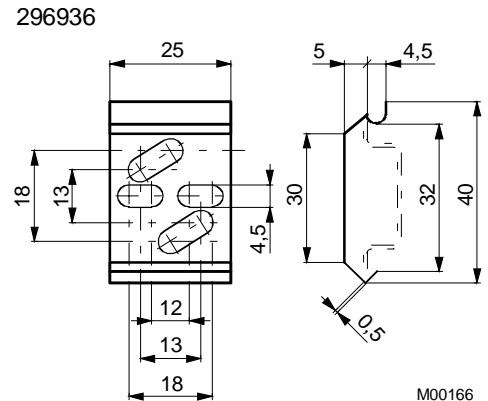
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Dimension drawing

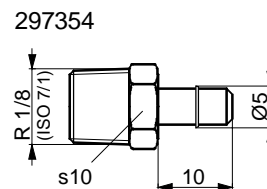


M297240c

Accessories



M00166



M00568

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