

Pressure Regulator – Dynamic And Robust



ED05 Rail Electro Pneumatic Pressure Regulator

- Complies with all relevant railway standards
- Operating temperature range -40 °C to 70 °C
- High repeatability and small hysteresis
- Robust and durable design
- Integrated diagnostic function
- Various of pressure ranges available

Precision Control Of Air Pressure And Flow For Many Applications



Precision control of pressure and flow with dynamic regulation. This is of importance in the pneumatic control of rail functions. The AVENTICS ED05 Rail combines high accuracy digital control with robust true proportional valve technology.

The direct electromagnetic actuation of the poppet valve, enables a very precise true proportional control with high flow rate



With the direct control principle the force moving the valve seat is applied directly by a proportional solenoid. This minimizes inertia and hysteresis in mechanical transfer elements, achieving much higher dynamics with lowest control deviations. The utterly robust poppet valve technology does not require any special air quality. The large cross-section and a soft-sealing proportional valve seat make the valve durable and resistant to contamination. The ED05 Rail combines dynamics, precision, and excellent repeatability with extreme robustness. This means that the valve is ideally suitable for many rail vehicle applications.

- Control of the direct and blended brake
- Secondary suspension control for easy boarding
- Variable pressure control of pantographs

Railway-specific standards

EN 50155: Railway-specific requirements for electronic and mechanical components in rolling stock

EN45545 / NFPA130: Fire protection requirements

EN 50121-3-2: Electromagnetic compatibility

EN 60068: Resistance to cold and heat

EN 61373: Special requirements for shock and vibration



AVENTICS ED05 Rail – Designed for harsh operating conditions

The intelligent pneumatics are integrated in sturdy components made of die-cast aluminum and special steel.

	ED05 Rail
Pressure range	0... 11 bar
Setup	Direct control
Output signal	4...20 mA or 0...10 V
Nominal flow	1200 l/min
Control	4...20 mA or 0...10 VDC
Hysteresis	< 60 mbar
Repeatability	< 50 mbar
Protection class	IP65

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