



SIEMENS

Ingenuity for life

Damper actuators for rail vehicles

Certified, reliable, space-saving –
OpenAir™ speaks your language





The challenge: harsh environmental and operating conditions

Air conditioning units and air distribution systems in rail vehicle applications must ensure passenger comfort at all times. These systems are subject to special conditions: vibrations, extreme temperature fluctuations, special safety and fire protection regulations and confined spaces. To accomplish their task under these demanding conditions, they must have components that are precisely tailored to applications in rail vehicles. All components and materials must be certified in accordance with application-specific standards, must function reliably under harsh conditions and must be as compact as possible.

Relevant standards for the certification of damper actuators:

- EN 50155 – Electronic equipment used on rolling stock
- EN 45545 – Fire protection on railway vehicles (interior applications)
- EN 61373 – Shock and vibration, railway applications

Overview of actuators for rail vehicles

Actuators for rail vehicles		Control signal	Operating voltage	Standard model	Feedback potentiometer	2 integrated auxiliary switches	Rotary direction switch
	GDD series 5 Nm 30 s running time	Modulating DC 0/2...10 V	DC 24 V	GDD161.1E/RW	–	–	Yes
		2-position 3-position		GDD141.1E/RW	GDD142.1E/RW	GDD146.1E/RW	
	GDA series 5 Nm 90 s running time	Modulating DC 0/2...10 V	DC 24 V	GDA161.1E/RW	–	–	Yes
		2-position 3-position		GDA141.1E/RW	GDA142.1E/RW	GDA146.1E/RW	
	GLD series 8 Nm 30 s running time	Modulating DC 0/2...10 V	DC 24 V	GLD161.1E/RW	–	–	Yes
		2-position 3-position		GLD141.1E/RW	GLD142.1E/RW	GLD146.1E/RW	
	GLA series 10 Nm 90 s running time	Modulating DC 0/2...10 V	DC 24 V	GLA161.1E/RW	–	–	Yes
		2-position 3-position		GLA141.1E/RW	GLA142.1E/RW	GLA146.1E/RW	

The solution: OpenAir damper actuators

With OpenAir, we offer you technically perfected damper actuators that can be used the world over and meet all the requisite standards (EN 45545, EN 50155, EN 61373) for use in rail vehicles – certified and documented, of course. These rugged devices with a tested service life of up to 100,000 full cycles and 5,000,000 partial cycles are available with 5 and 10(8) Nm of torque and running times of 30 and 90 seconds. You benefit from load-independent running times thanks to robust, brushless DC (BLDC) motors and an extremely low sound power level of <28 dB(A).

Easy and safe in any area

The halogen-free printed circuit boards completely covered with a protective coating and the extremely wide temperature operating range (from –40 to +70° C; short-term +85° C) ensure maximum reliability and flexibility. The housings are also extremely compact because the two auxiliary switches for indicating damper position are integrated. Installation is with a single screw and the direction of rotation to be instantly adapted thanks to a rotary direction switch. To make your work easier, the actuators come preassembled with the plug of your choice and you also choose the length of the railway-specific, halogen-free connecting cables.

Highlights

- Compliance with all standards: certified according to EN 45545, EN 50155, EN 61373
- High availability even under the harshest conditions
- Extremely compact devices



Where's the datasheet?

A question that never needs asking again. With the Scan to HIT app, you can simply scan in the data matrix code on the actuators and immediately obtain access to all important product information such as datasheets and installation instructions. The app is available free of charge for iOS and Android in the corresponding stores.

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