



More  
warranty  
for you!



## DAMPER ACTUATORS

# OpenAir speaks your language

Long-life, sturdy damper actuators for HVAC applications,  
air volume control as well as fire and smoke protection dampers  
[siemens.com/openair](https://www.siemens.com/openair)

**SIEMENS**

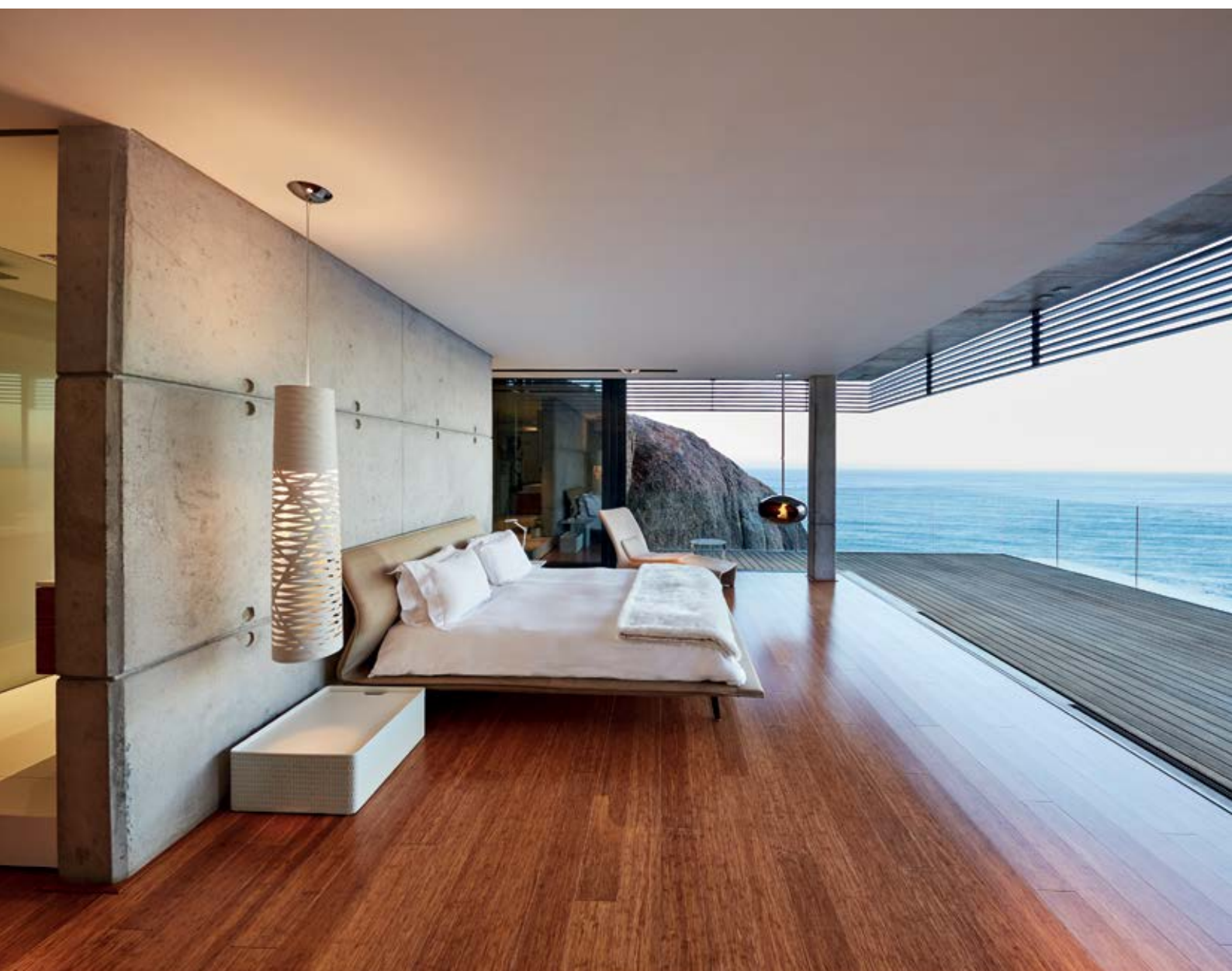
# Damper actuators

## tailored to suit your requirements

OpenAir™ is a comprehensive portfolio of damper actuators tailored to suit your requirements. You'll benefit from a wide selection of positioning forces, control signals, communications standards and add-on options.

### **And more advantages:**

The proven damper actuators are easy to install and extremely durable in operation, during transportation and on the construction site. Low-consumption motors, fast and precise control, and long life cycles ensure noticeable cost and energy efficiency. Siemens is also an experienced, reliable partner who supports you with a wide range of training services, practical tools and powerful support.



# When efficiency meets maximum benefit



## OpenAir: A range that meets all your needs

Energy-efficient, simple, flexible and reliable: Your benefits are at the heart of the entire damper actuator range, from smooth installation and rapid commissioning to operation that is both efficient and convenient. You save both time and costs by having a standardized wiring plan, for example, and a self-centering shaft adapter.

## You'll be won over by the many convenient features

Once it's up and running, OpenAir proves to be a winner, in a satisfyingly understated way. Brushless motors and gearboxes that have already been run in guarantee especially quiet yet high-performance operation. The fast and accurate response to building automation commands also helps ensure a stable and even more comfortable indoor climate.



**5-year warranty on valves  
and actuators, damper  
actuators, and sensors.**

## Quality, experience and total support for practical application

OpenAir is known for its exceptionally long product life cycle. With it, you build on over 40 years of experience in damper actuators and millions of products in use. You can also rely on comprehensive, practical support – for example, through many smart tools, direct support, and a worldwide sales and service network.

## Understanding the language of buildings

Building Information Modeling (BIM) enables a significant productivity increase in the construction industry. BIM is a digitally supported process that changes the way we plan, build and operate buildings. Siemens provides a powerful, easy-to-use CAD browser that delivers BIM-compliant data that directly integrates into your BIM process, while also supporting more traditional CAD design workflows. Benefit from an easy transition to the future of construction with well over 4,000 products across all our global portfolio offerings:  
[siemens.com/bim](https://www.siemens.com/bim)

## Highlights

- The right damper actuator for every application
- Rapid installation, maximum reliability, long service life
- Low-consumption motors, maximum precision, comfort you can feel



# Air damper actuators: Save time and costs with OpenAir

## Powerful actuators for HVAC applications

Are installation difficulties your biggest challenge? Or unusual locations? And are costs still a major determining factor for you? Stay on the safe side with the OpenAir air damper actuators – always right for your application.

Air damper actuators for HVAC applications are available in torque ranges from 2 to 35 Nm and with lifting forces from 125 to 250 N. Even in challenging locations where space is tight, for example, in false floors, ease of mounting is guaranteed – and so is maximum safety.



Powerful OpenAir damper actuators for HVAC applications – from 2 to 35 Nm and from 125 to 250 N.

## Highlights

- Always the right option for your application
- Cost-saving, precise and reliable
- Easy to install and highly efficient

## Easy to install, easy to integrate

With the self-centering shaft adapter, you will not only minimize your installation outlay, but also eliminate mounting errors entirely. The actuators with Modbus RTU offer you even more advantages. They reduce wiring costs and can be easily integrated into existing systems.

With the Climatix™ controller range from Siemens, controllers and actuators are addressed automatically during commissioning. High energy efficiency and ease of maintenance let you achieve even more cost savings.

Networked OpenAir VAV controllers guarantee inter-operability thanks to the standardized and open communications protocols. As a result, the VAV controllers can be installed in any system, even those made by different manufacturers.



| Actuators for HVAC applications                                                                                                                                                 | Control signal               | Operating voltage | Standard model | Dimensions, round damper shaft (mm) | Dimensions, square damper shaft (mm) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------|----------------|-------------------------------------|--------------------------------------|
| <b>Air damper actuators with spring return</b>                                                                                                                                  |                              |                   |                |                                     |                                      |
|  <b>GMA-series</b><br>7 Nm for approx. 1.5 m² damper area<br>90 s running time, 15 s SR time | Modbus RTU                   | AC/DC 24 V        | GMA161.1E/MO   | 6.4...20.5                          | 6.4...13                             |
|  <b>GCA-series</b><br>18 Nm for approx. 3 m² damper area<br>90 s running time, 15 s SR time  | Modbus RTU                   | AC/DC 24 V        | GMA161.1E/MO   | 8...25.6                            | 6...18                               |
| <b>Air damper actuators without spring return</b>                                                                                                                               |                              |                   |                |                                     |                                      |
|  <b>GDB-series</b><br>5 Nm for approx. 0.8 m² damper area<br>150 s running time              | Modbus RTU                   | AC 24 V           | GDB111.1E/MO   | 8...16                              | 6...12.8                             |
|                                                                                                                                                                                 | KNX S-/LTE-Mode, KNX PL-Link | AC 24 V           | GDB111.1E/KN   | 8...16                              |                                      |
|  <b>GLB-series</b><br>10 Nm for approx. 1.5 m² damper area<br>150 s running time             | Modbus RTU                   | AC 24 V           | GLB111.1E/MO   | 8...16                              | 6...12.8                             |
|                                                                                                                                                                                 | KNX S-/LTE-Mode, KNX PL-Link | AC 24 V           | GLB111.1E/KN   | 8...16                              |                                      |
|  <b>GEB-series</b><br>20 Nm for approx. 4 m² damper area<br>150 s running time               | Modbus RTU                   | AC 24 V           | GEB161.1E/MO   | 8...20.5                            | 8...14.5                             |
|  <b>GIB-series</b><br>35 Nm for approx. 6 m² damper area<br>150 s running time               | Modbus RTU                   | AC 24 V           | GIB161.1E/MO   | 8...25.6                            | 6...18                               |

| Actuators for HVAC applications                                                     | Control signal                                                                                          | Operating voltage | Standard model | Feedback potentiometer | Adjustable offset/span | Adjustable offset/span with two auxiliary switches | Feedback (1 kOhm) with two auxiliary switches | Two auxiliary switches | Dimensions, round damper shaft (mm) | Dimensions, square damper shaft (mm) |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-------------------|----------------|------------------------|------------------------|----------------------------------------------------|-----------------------------------------------|------------------------|-------------------------------------|--------------------------------------|
| Air damper actuators with spring return                                             |                                                                                                         |                   |                |                        |                        |                                                    |                                               |                        |                                     |                                      |
|    | <b>GQD-series</b><br>2 Nm for approx.<br>0.3 m² damper area<br>30 s running time<br>15 s SR time        | 2-position        | AC/DC 24 V     | GQD121.1A              | –                      | –                                                  | –                                             | GQD126.1A              | 8...15                              | 6...11                               |
|                                                                                     | 3-position                                                                                              | AC 230 V          | GQD321.1A      | –                      | –                      | –                                                  | GQD326.1A                                     |                        |                                     |                                      |
|                                                                                     |                                                                                                         | AC/DC 24 V        | GQD131.1A      | –                      | –                      | –                                                  | –                                             |                        |                                     |                                      |
|                                                                                     | Modulating, DC 0...10 V                                                                                 | AC/DC 24 V        | GQD161.1A      | –                      | –                      | –                                                  | GQD166.1A                                     |                        |                                     |                                      |
|    | <b>GPC-series</b><br>4 Nm for approx.<br>0.6 m² damper area<br>60 s running time<br>15 s SR time        | 2-position        | AC/DC 24 V     | GPC121.1A              | –                      | –                                                  | –                                             | GPC126.1A              | 8...15                              | 6...11                               |
|                                                                                     | 3-position                                                                                              | AC 230 V          | GPC321.1A      | –                      | –                      | –                                                  | GPC326.1A                                     |                        |                                     |                                      |
|                                                                                     |                                                                                                         | AC/DC 24 V        | GPC131.1A      | –                      | –                      | –                                                  | GPC136.1A                                     |                        |                                     |                                      |
|                                                                                     | Modulating, DC 0...10 V                                                                                 | AC/DC 24 V        | GPC161.1A      | –                      | –                      | –                                                  | GPC166.1A                                     |                        |                                     |                                      |
|                                                                                     | Modulating, DC 0...10 V                                                                                 | AC 230 V          | GPC361.1A      | –                      | –                      | –                                                  | –                                             |                        |                                     |                                      |
|    | <b>GNP-series</b><br>6 Nm for approx.<br>1 m² damper area<br>2 s running time<br>el. fail-safe function | 2-position        | AC/DC 24 V     | GNP191.1E              | –                      | –                                                  | –                                             | GNP196.1E              | 6.4...20.5                          | 6.4...13                             |
|                                                                                     | 3-position                                                                                              | AC/DC 24 V        | GNP191.1E      | –                      | –                      | –                                                  | GNP196.1E                                     |                        |                                     |                                      |
|    | <b>GMA-series</b><br>7 Nm for approx.<br>1.5 m² damper area<br>90 s running time<br>15 s SR time        | 2-position        | AC/DC 24 V     | GMA121.1E              | –                      | –                                                  | –                                             | GMA126.1E              | 6.4...20.5                          | 6.4...13                             |
|                                                                                     | 3-position                                                                                              | AC 230 V          | GMA321.1E      | –                      | –                      | –                                                  | GMA326.1E                                     |                        |                                     |                                      |
|                                                                                     |                                                                                                         | AC/DC 24 V        | GMA131.1E      | –                      | –                      | –                                                  | GMA136.1E                                     |                        |                                     |                                      |
|                                                                                     | Modulating, DC 0...10 V                                                                                 | AC/DC 24 V        | GMA161.1E      | –                      | GMA163.1E              | GMA164.1E                                          | –                                             | GMA166.1E              |                                     |                                      |
|    | <b>GCA-series</b><br>18 Nm für ca. 3 m² damper area<br>90 s running time<br>15 s SR time                | 2-position        | AC/DC 24 V     | GCA121.1E              | –                      | –                                                  | –                                             | GCA126.1E              | 8...25.6                            | 6...18                               |
|                                                                                     | 3-position                                                                                              | AC 230 V          | GCA321.1E      | –                      | –                      | –                                                  | GCA326.1E                                     |                        |                                     |                                      |
|                                                                                     |                                                                                                         | AC/DC 24 V        | GCA131.1E      | –                      | –                      | –                                                  | GCA135.1E                                     | –                      |                                     |                                      |
|                                                                                     | Modulating, DC 0...10 V                                                                                 | AC/DC 24 V        | GCA161.1E      | –                      | GCA163.1E              | GCA164.1E                                          | –                                             | GCA166.1E              |                                     |                                      |
| Air damper actuators without spring return                                          |                                                                                                         |                   |                | 5 kOhm                 |                        |                                                    |                                               |                        |                                     |                                      |
|   | <b>GSD-series</b><br>2 Nm for approx.<br>0.3 m² damper area<br>30 s running time                        | 2-position        | AC/DC 24 V     | GSD141.1A              | –                      | –                                                  | –                                             | GSD146.1A              | 8...15                              | 6...11                               |
|                                                                                     | 3-position                                                                                              | AC 230 V          | GSD341.1A      | –                      | –                      | –                                                  | GSD346.1A                                     |                        |                                     |                                      |
|                                                                                     | Modulating, DC 0...10 V                                                                                 | AC/DC 24 V        | GSD161.1A      | –                      | –                      | –                                                  | GSD166.1A                                     |                        |                                     |                                      |
|                                                                                     | Modulating, DC 0...10 V                                                                                 | AC 230 V          | GSD361.1A      | –                      | –                      | –                                                  | –                                             |                        |                                     |                                      |
|  | <b>GDB-series</b><br>5 Nm for approx.<br>0.8 m² damper area<br>150 s running time                       | 2-position        | AC/DC 24 V     | GDB141.1E              | GDB142.1E              | –                                                  | –                                             | GDB146.1E              | 8...16                              | 6...12.8                             |
|                                                                                     | 3-position                                                                                              | AC 230 V          | GDB341.1E      | –                      | –                      | –                                                  | GDB346.1E                                     |                        |                                     |                                      |
|                                                                                     |                                                                                                         | AC/DC 24 V        | GDB161.1E      | –                      | GDB163.1E              | GDB164.1E                                          | –                                             | GDB166.1E              |                                     |                                      |
|                                                                                     | Modulating, DC 0...10 V                                                                                 | AC 230 V          | GDB361.1E      | –                      | –                      | –                                                  | –                                             |                        |                                     |                                      |
|  | <b>GLB-series</b><br>10 Nm for approx.<br>1.5 m² damper area<br>150 s running time                      | 2-position        | AC/DC 24 V     | GLB141.1E              | GLB142.1E              | –                                                  | –                                             | GLB146.1E              | 8...16                              | 6...12.8                             |
|                                                                                     | 3-position                                                                                              | AC 230 V          | GLB341.1E      | –                      | –                      | –                                                  | GLB346.1E                                     |                        |                                     |                                      |
|                                                                                     |                                                                                                         | AC/DC 24 V        | GLB161.1E      | –                      | GLB163.1E              | GLB164.1E                                          | –                                             | GLB166.1E              |                                     |                                      |
|                                                                                     | Modulating, DC 0...10 V                                                                                 | AC 230 V          | GLB361.1E      | –                      | –                      | –                                                  | –                                             |                        |                                     |                                      |
|  | <b>GAP-series</b><br>6 Nm for approx.<br>1 m² damper area<br>2 s running time                           | 2-position        | AC/DC 24 V     | GAP191.1E              | –                      | –                                                  | –                                             | GAP196.1E              | 6.4...20.5                          | 6.4...13                             |
|                                                                                     | 3-position                                                                                              | AC/DC 24 V        | GAP191.1E      | –                      | –                      | –                                                  | GAP196.1E                                     |                        |                                     |                                      |
|  | <b>GEB-series</b><br>20 Nm for approx.<br>4 m² damper area<br>150 s running time                        | 2-position        | AC/DC 24 V     | GEB141.1E              | GEB142.1E              | –                                                  | –                                             | GEB146.1E              | 8...20.5                            | 8...14.5                             |
|                                                                                     | 3-position                                                                                              | AC 230 V          | GEB341.1E      | –                      | –                      | –                                                  | GEB346.1E                                     |                        |                                     |                                      |
|                                                                                     |                                                                                                         | AC/DC 24 V        | GEB161.1E      | –                      | GEB163.1E              | GEB164.1E                                          | –                                             | GEB166.1E              |                                     |                                      |
|                                                                                     | Modulating, DC 0...10 V                                                                                 | AC 230 V          | GEB361.1E      | –                      | –                      | –                                                  | –                                             |                        |                                     |                                      |
|  | <b>GBB-series</b><br>25 Nm for approx.<br>4 m² damper area<br>150 s running time                        | 2-position        | AC/DC 24 V     | GBB141.1E              | –                      | –                                                  | –                                             | GBB145.1E              | 8...25.6                            | 6...18                               |
|                                                                                     | 3-position                                                                                              | AC 230 V          | GBB331.1E      | –                      | –                      | –                                                  | GBB335.1E                                     | GBB146.1E              |                                     |                                      |
|                                                                                     |                                                                                                         | AC/DC 24 V        | GBB161.1E      | –                      | GGB163.1E              | GBB164.1E                                          | –                                             | GBB166.1E              |                                     |                                      |
|                                                                                     | Modulating, DC 0...10 V                                                                                 | AC/DC 24 V        | GBB161.1E      | –                      | GGB163.1E              | GBB164.1E                                          | –                                             | GBB166.1E              |                                     |                                      |
|  | <b>GIB-series</b><br>35 Nm for approx.<br>6 m² damper area<br>150 s running time                        | 2-position        | AC/DC 24 V     | GIB141.1E              | –                      | –                                                  | –                                             | GIB145.1E              | 8...25.6                            | 6...18                               |
|                                                                                     | 3-position                                                                                              | AC 230 V          | GIB341.1E      | –                      | –                      | –                                                  | GIB345.1E                                     | GIB146.1E              |                                     |                                      |
|                                                                                     | Modulating, DC 0...10 V                                                                                 | AC/DC 24 V        | GIB161.1E      | –                      | GIB163.1E              | GIB164.1E                                          | –                                             | GIB166.1E              |                                     |                                      |
|  | <b>GDB-series</b><br>125 N for approx.<br>0.8 m² damper area<br>150 s running time                      | 3-position        | AC 24 V        | GDB131.2E              | –                      | –                                                  | –                                             | GDB136.2E              | –                                   | –                                    |
|                                                                                     |                                                                                                         | AC 230 V          | GDB331.2E      | –                      | –                      | –                                                  | GDB336.2E                                     |                        |                                     |                                      |
|  | <b>GLB-series</b><br>250 N for approx.<br>1.5 m² damper area<br>150 s running time                      | 3-position        | AC 24 V        | GLB131.2E              | –                      | –                                                  | –                                             | GLB136.2E              | –                                   | –                                    |
|                                                                                     |                                                                                                         | AC 230 V          | GLB331.2E      | –                      | –                      | –                                                  | GLB336.2E                                     |                        |                                     |                                      |
|                                                                                     | Modulating, DC 0...10 V                                                                                 | AC 24 V           | GLB161.2E      | –                      | GLB163.2E              | –                                                  | –                                             | –                      |                                     |                                      |



| Actuators for HVAC applications                                                     |                                                                                | Control signal                          | Operating voltage | Standard model | Two auxiliary switches | Dimensions round damper shaft (mm) | Dimensions square damper shaft (mm) |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------------|-------------------|----------------|------------------------|------------------------------------|-------------------------------------|
| Actuators (30/90 s) for fast HVAC applications without spring return                |                                                                                |                                         |                   |                |                        |                                    |                                     |
|    | <b>GDD-series</b><br>5 Nm for approx. 0.8 m² damper area<br>30 s running time  | 2-position                              | AC/DC 24 V        | GDD141.1E      | GDD146.1E              | 8...16                             | 6...12.8                            |
|                                                                                     |                                                                                | 3-position<br>Modulating<br>DC 0...10 V | AC/DC 24 V        | GDD161.1E      | –                      |                                    |                                     |
|   | <b>GLD-series</b><br>8 Nm for approx. 1.5 m² damper area<br>30 s running time  | 2-position                              | AC/DC 24 V        | GLD141.1E      | GLD146.1E              | 8...16                             | 6...12.8                            |
|                                                                                     |                                                                                | 3-position<br>Modulating<br>DC 0...10 V | AC/DC 24 V        | GLD161.1E      | –                      |                                    |                                     |
|  | <b>GDA-series</b><br>5 Nm for approx. 0.8 m² damper area<br>90 s running time  | 2-position                              | AC/DC 24 V        | GDA141.1E      | GDA146.1E              | 8...16                             | 6...12.8                            |
|                                                                                     |                                                                                | 3-position<br>Modulating<br>DC 0...10 V | AC/DC 24 V        | GDA161.1E      | –                      |                                    |                                     |
|  | <b>GLA-series</b><br>10 Nm for approx. 1.5 m² damper area<br>90 s running time | 2-position                              | AC/DC 24 V        | GLA141.1E      | GLA146.1E              | 8...16                             | 6...12.8                            |
|                                                                                     |                                                                                | 3-position<br>Modulating<br>DC 0...10 V | AC/DC 24 V        | GLA161.1E      | –                      |                                    |                                     |



# VAV controllers: OpenAir offers more possibilities, more convenience

## Superior actuators

### for air volume control

Reduced outlay, increased comfort:

That neatly summarizes the solid benefits the OpenAir VAV controllers offer. It's all made possible thanks to maximum precision, excellent stability and winning flexibility – including the ability to respond rapidly to changed requirements.

## Practical installation, varied application

Fast and simple adjustment to VAV boxes makes complicated and time-consuming installation a thing of the past. And because all common communications standards are accommodated and the VAV modular controller turns every 3-position actuator into a VAV actuator, you get to enjoy a much greater range of application than ever before.

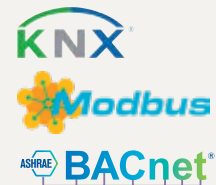
## Highlights

- Offers all common communications standards
- Fast, simple adjustment to VAV boxes
- Precise and stable differential pressure measurement

| Actuators for air volume control<br>300 Pa application range*                                                                                                                              | Control signal               | Operating voltage | Standard model | Dimensions round damper shaft (mm) | Dimensions square damper shaft (mm) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------|----------------|------------------------------------|-------------------------------------|
|  <b>GDB 300 Pa VAV compact controller</b><br>5 Nm for approx. 0.8 m² damper area<br>150 s running time    | 3-position                   | AC 24 V           | GDB181.1E/3    | 8...16                             | 6...12.8                            |
|                                                                                                                                                                                            | Modulating, DC 0/2...10 V    | AC 24 V           |                |                                    |                                     |
|                                                                                                                                                                                            | KNX S-/LTE-Mode, KNX PL-Link | AC 24 V           | GDB181.1E/KN   |                                    |                                     |
|                                                                                                                                                                                            | Modbus RTU                   | AC 24 V           | GDB181.1E/MO   |                                    |                                     |
|                                                                                                                                                                                            | BACnet MS/TP                 | AC 24 V           | GDB181.1E/BA   |                                    |                                     |
|  <b>GLB 300 Pa VAV compact controller</b><br>10 Nm for approx. 1.5 m² damper area<br>150 s running time | 3-position                   | AC 24 V           | GLB181.1E/3    | 8...16                             | 6...12.8                            |
|                                                                                                                                                                                            | Modulating, DC 0/2...10 V    | AC 24 V           |                |                                    |                                     |
|                                                                                                                                                                                            | KNX S-/LTE-Mode, KNX PL-Link | AC 24 V           | GLB181.1E/KN   |                                    |                                     |
|                                                                                                                                                                                            | Modbus RTU                   | AC 24 V           | GLB181.1E/MO   |                                    |                                     |
|                                                                                                                                                                                            | BACnet MS/TP                 | AC 24 V           | GLB181.1E/BA   |                                    |                                     |
|  <b>ASV 300 Pa VAV modular controller</b>                                                               | 3-position                   | AC 24 V           | ASV181.1E/3    | –                                  | –                                   |
|                                                                                                                                                                                            | Modulating, DC 0/2...10 V    | AC 24 V           |                |                                    |                                     |

\* Also available as a multipack of 18 pcs (GDB.181..KN and GLB.181..KN, GDB.181..BA, other types on request)

**Networked actuators for air volume control** guarantee interoperability thanks to the standardized and open communications protocols. As a result, the VAV controllers can be installed in any system, even those made by different manufacturers.



| VAV controllers                                                                                                                                                                                                           | Control signal                        | Operating voltage | Standard model   | Dimensions round damper shaft (mm) | Dimensions square damper shaft (mm) | In/Outputs             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------|------------------|------------------------------------|-------------------------------------|------------------------|
|  <b>DXR1..D..</b><br>Compact, configurable room automation station with 5 Nm actuator for HVAC applications                            | BACnet/IP                             | AC 24 V           | DXR1.E09PDZ-112  | 8...16                             | 6...12.8                            | 2 UI, 4 DO, 1 AO       |
|                                                                                                                                                                                                                           | BACnet/IP                             |                   | DXR1.E09PDZ-113  |                                    |                                     |                        |
|                                                                                                                                                                                                                           | BACnet MS/TP                          |                   | DXR1.M09PDZ-112  |                                    |                                     |                        |
|                                                                                                                                                                                                                           | BACnet MS/TP                          |                   | DXR1.M09PDZ-113  |                                    |                                     |                        |
|  <b>DXR1..L..</b><br>Compact, configurable room automation station with 10 Nm actuator for HVAC applications                           | BACnet/IP                             | AC 24 V           | DXR1.E02PLZ-112  | 8...16                             | 6...12.8                            | –                      |
|                                                                                                                                                                                                                           | BACnet/IP, KNX PL-Link                |                   | DXR1.E10PL-112   |                                    |                                     | 2 UI, 1 DI, 4 DO, 1 AO |
|                                                                                                                                                                                                                           | BACnet/IP, KNX PL-Link                |                   | DXR1.E10PL-113   |                                    |                                     |                        |
|                                                                                                                                                                                                                           | BACnet/IP                             |                   | DXR1.E09PLZ-112  |                                    |                                     | 2 UI, 4 DO, 1 AO       |
|                                                                                                                                                                                                                           | BACnet/MS/TP                          |                   | DXR1.M09PLZ-112  |                                    |                                     |                        |
|  <b>DXR2..L..</b><br>Compact, configurable room automation station with 10 Nm actuator for HVAC applications with lighting and shading | BACnet/IP, KNX S-Mode                 | AC 24 V           | DXR2.E10PL-102B  | 8...16                             | 6...12.8                            | 2 UI, 1 DI, 4 DO, 1 AO |
|                                                                                                                                                                                                                           | KNX PL-Link                           |                   | DXR2.E10PLX-102B |                                    |                                     |                        |
|                                                                                                                                                                                                                           | BACnet/IP, KNX S-Mode                 |                   | DXR2.M10PL-102B  |                                    |                                     |                        |
|                                                                                                                                                                                                                           | KNX PL-Link                           |                   | DXR2.M10PLX-102B |                                    |                                     |                        |
|                                                                                                                                                                                                                           | BACnet MS/TP, KNX S-Mode, KNX PL-Link |                   | DXR2.M10PLX-102B |                                    |                                     |                        |



| Type                                                                                                      | Housing color | Matching        | Room temperature measurement | Digital display for temperature and room occupancy | Temperature setpoint adjustment | Room occupancy adjustment |
|-----------------------------------------------------------------------------------------------------------|---------------|-----------------|------------------------------|----------------------------------------------------|---------------------------------|---------------------------|
| Room sensor and room control unit for DXR1 room automation stations                                       |               |                 |                              |                                                    |                                 |                           |
|  <b>QMA1.N30H</b>       | White         | DXR1.M09PDZ-112 | ●                            |                                                    |                                 |                           |
|                                                                                                           |               | DXR1.M09PDZ-113 |                              |                                                    |                                 |                           |
|                                                                                                           |               | DXR1.M09PLZ-112 |                              |                                                    |                                 |                           |
|                                                                                                           |               | DXR1.E09PDZ-112 |                              |                                                    |                                 |                           |
|                                                                                                           |               | DXR1.E09PDZ-113 |                              |                                                    |                                 |                           |
|                                                                                                           |               | DXR1.E09PLZ-112 |                              |                                                    |                                 |                           |
|  <b>QMX1.M34H</b>      | White         | DXR1.M09PDZ-112 | ●                            | ●                                                  | ●                               | ●                         |
|                                                                                                           |               | DXR1.M09PDZ-113 |                              |                                                    |                                 |                           |
|                                                                                                           |               | DXR1.M09PLZ-112 |                              |                                                    |                                 |                           |
|                                                                                                           |               | DXR1.E09PDZ-112 |                              |                                                    |                                 |                           |
|                                                                                                           |               | DXR1.E09PDZ-113 |                              |                                                    |                                 |                           |
|                                                                                                           |               | DXR1.E09PLZ-112 |                              |                                                    |                                 |                           |
|  <b>QMX1.M34H-1BSC</b> | Black         | DXR1.M09PDZ-112 | ●                            | ●                                                  | ●                               | ●                         |
|                                                                                                           |               | DXR1.M09PDZ-113 |                              |                                                    |                                 |                           |
|                                                                                                           |               | DXR1.M09PLZ-112 |                              |                                                    |                                 |                           |
|                                                                                                           |               | DXR1.E09PDZ-112 |                              |                                                    |                                 |                           |
|                                                                                                           |               | DXR1.E09PDZ-113 |                              |                                                    |                                 |                           |
|                                                                                                           |               | DXR1.E09PLZ-112 |                              |                                                    |                                 |                           |



# Actuators for fire and smoke protection dampers: **Maximum safety with OpenAir**

## Reliable actuators for fire and smoke protection dampers

Safety when it matters: The OpenAir actuators function with reassuring reliability at a sensitive interface between humans and safety systems. After all, in an emergency it's extremely important to keep escape routes and emergency exits free from smoke as long as possible, even if there's a power outage or in special applications.

## Powerful and safe opening and closing

Three powerful torque levels ensure that the dampers open and close rapidly and reliably. Two integrated auxiliary switches provide maximum safety in reporting the damper position.

## Highlights

- Three powerful torque levels, thermal cutout at 72 °C or 95 °C
- Fast, easy and safe to install
- Robust housings for high endurance

| Actuators for fire and smoke protection dampers                                                                                                                                                     | Control signal               | Operating voltage      | Two auxiliary switches                                   | Two auxiliary switches and thermal cutout                  | Dimensions, square damper shaft (mm) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------|----------------------------------------------------------|------------------------------------------------------------|--------------------------------------|
|  <b>GRA-actuator</b><br>4 Nm for approx.<br>0.6 m <sup>2</sup> damper area<br>90 s running time<br>15 s SR time   | 2-position                   | AC/DC 24 V<br>AC 230 V | GRA126.1E/.. <sup>1)</sup><br>GRA326.1E/.. <sup>1)</sup> | GRA126.1E/T.. <sup>1)</sup><br>GRA326.1E/T.. <sup>1)</sup> | 10, 12                               |
|  <b>GNA-actuator</b><br>9/7 Nm for approx.<br>1 m <sup>2</sup> damper area<br>90 s running time<br>15 s SR time  | 2-position                   | AC/DC 24 V<br>AC 230 V | GNA126.1E/.. <sup>1)</sup><br>GNA326.1E/.. <sup>1)</sup> | GNA126.1E/T.. <sup>1)</sup><br>GNA326.1E/T.. <sup>1)</sup> | 10, 12                               |
|                                                                                                                                                                                                     | Modulating<br>DC 0/2... 10 V | AC/DC 24 V             |                                                          | GNA166.1E/T12                                              | 12                                   |
|  <b>GGA-actuator</b><br>18 Nm for approx.<br>2.5 m <sup>2</sup> damper area<br>90 s running time<br>15 s SR time | 2-position                   | AC/DC 24 V<br>AC 230 V | GGA126.1E/.. <sup>1)</sup><br>GGA326.1E/.. <sup>1)</sup> | GGA126.1E/T.. <sup>1)</sup><br>GGA326.1E/T.. <sup>1)</sup> | 10, 12                               |

<sup>1)</sup> .. = use dimensions for square damper shaft (mm)



# Air damper actuators for rail vehicles: OpenAir fits everywhere

## Highlights

- All standards are met
- New extended voltage range (110 V/24 V)
- More safety due to Actuators with spring return function
- Compact design due to integrated auxiliary switches

## Certified and customized to individual requirements

With OpenAir, we offer high-tech air damper actuators that comply with all necessary standards (EN 50155, EN 45545, EN 61373) for use in rail vehicles. To make your work easier, we provide the actuators with premounted connectors of your choice and with the desired cable length.

## Safe everywhere

The circuit boards, which are completely covered with a protective coating, and the very broad temperature operating range (of  $-40$  to  $+85$  °C) ensure maximum reliability and flexibility. For safety-relevant applications, damper actuators with spring return function are now also available. These are required when air dampers have to be moved to an emergency position in the event of a power failure.

| Actuators for railway applications                                                  |                                                                | Control signal              | Operating voltage | Standard model | Feedback potentiometer | Two integrated auxiliary switches | Rotary direction switch |              |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------------|-------------------|----------------|------------------------|-----------------------------------|-------------------------|--------------|
| Air damper actuators with spring return                                             |                                                                |                             |                   |                |                        |                                   |                         |              |
|   | <b>GPC-series</b><br>4 Nm<br>60 s running time<br>15 s SR time | Modulating<br>DC 0/2...10 V | DC 24 V           | GPC161.1A/RW   | –                      | –                                 | No                      |              |
|                                                                                     |                                                                |                             | DC 110 V          | GPC261.1A/RW   |                        |                                   |                         |              |
|                                                                                     | 2-position                                                     | DC 24 V                     | GPC121.1A/RW      | –              | GPC126.1A/RW           | No                                |                         |              |
|                                                                                     |                                                                | DC 110 V                    | GPC221.1A/RW      |                | GPC226.1A/RW           |                                   |                         |              |
| Air damper actuators without spring return                                          |                                                                |                             |                   |                |                        |                                   |                         |              |
|  | <b>GDD-series</b><br>5 Nm<br>30 s running time                 | Modulating<br>DC 0/2...10 V | DC 24 V           | GDD161.1E/RW   | –                      | –                                 | Yes                     |              |
|                                                                                     |                                                                |                             | DC 110 V          | GDD261.1E/RW   |                        |                                   |                         |              |
|                                                                                     |                                                                | 2-position<br>3-position    | DC 24 V           | GDD141.1E/RW   | GDD142.1E/RW           | GDD146.1E/RW                      |                         |              |
|                                                                                     |                                                                |                             | DC 110 V          | GDD241.1E/RW   | GDD242.1E/RW           | GDD246.1E/RW                      |                         |              |
|  | <b>GDA-series</b><br>5 Nm<br>90 s running time                 | Modulating<br>DC 0/2...10 V | DC 24 V           | GDA161.1E/RW   | –                      | –                                 | Yes                     |              |
|                                                                                     |                                                                |                             | DC 24 V           | GDA141.1E/RW   |                        |                                   |                         | GDA142.1E/RW |
|                                                                                     |                                                                | 2-position<br>3-position    | DC 24 V           | GLD161.1E/RW   | –                      | –                                 |                         | Yes          |
|                                                                                     |                                                                |                             | DC 110 V          | GLD261.1E/RW   |                        |                                   |                         |              |
|  | <b>GLD-series</b><br>8 Nm<br>30 s running time                 | Modulating<br>DC 0/2...10 V | DC 24 V           | GLD161.1E/RW   | –                      | –                                 | Yes                     |              |
|                                                                                     |                                                                |                             | DC 110 V          | GLD261.1E/RW   |                        |                                   |                         |              |
|                                                                                     |                                                                | 2-position<br>3-position    | DC 24 V           | GLD141.1E/RW   | GLD142.1E/RW           | GLD146.1E/RW                      |                         |              |
|                                                                                     |                                                                |                             | DC 110 V          | GLD241.1E/RW   | GLD242.1E/RW           | GLD246.1E/RW                      |                         |              |
|  | <b>GLA-series</b><br>10 Nm<br>90 s running time                | Modulating<br>DC 0/2...10 V | DC 24 V           | GLA161.1E/RW   | –                      | –                                 | Yes                     |              |
|                                                                                     |                                                                |                             | DC 24 V           | GLA141.1E/RW   |                        |                                   |                         | GLA142.1E/RW |
|                                                                                     |                                                                | 2-position<br>3-position    | DC 24 V           | GLA161.1E/RW   | –                      | –                                 |                         | Yes          |
|                                                                                     |                                                                |                             | DC 24 V           | GLA141.1E/RW   |                        |                                   |                         |              |



Robust housings, high reliability, strong performance: The OpenAir actuator range is perfectly structured for ease of installation and efficient long-term operation.

# OpenAir – fulfills your wishes

## Configure actuators to meet your requirements

Do you have special requirements regarding the mechanical/electrical interface or do you need different packaging units for your customized damper actuator? A wide range of actuator-specific options can be selected via our customizing service.

Get in touch with your Siemens contact person. We will be happy to help you.

## Your configuration options

There's a choice of two labels and you can use your own company logo.

You can also choose the cable type and length to fit your requirements. A selection of connectors is also available.

---

### Highlights

- Actuators that are just right – made to suit your requirements
  - Your own logo can be included if required
  - Ordering is quick and easy
- 



# OpenAir – simple, robust and strong in everyday use

## Fast and easy mounting

Damper actuators have to sell themselves right from the start – in terms of availability and installation as well as long-term use. You'll love the OpenAir range as soon as you discover how easily it can be installed, thanks to its sturdy housing and a well-thought-out wiring concept, as well as its self-centering shaft adapter that can be fixed with just a single screw.

The basic, proven features like color and number coding for the cables and the wiring diagram on the labels also help avoid errors during the installation process.

## High quality ensures a long and reliable service life

The efficient OpenAir damper actuators will continue to prove their worth, because costs will always be one of the key issues in building automation into the future. The benefits of the high quality of this series are tangible, as you can see not only from their extremely long product life cycle but also from their economical low-consumption motors.

---

### Highlights

- The right damper actuator for every application
  - Easy and fast installation and commissioning
  - High quality and extremely long product life cycle
-

# Practical support

## BIM – Building Information Modeling

BIM made easy with Siemens: With a wide range of products for BIM-based planning, Siemens is making it easy for you to experience the future of construction. The easy-to-use CAD browser from Siemens delivers BIM-compliant data that directly integrates into your BIM process, while also supporting more traditional CAD design workflows.

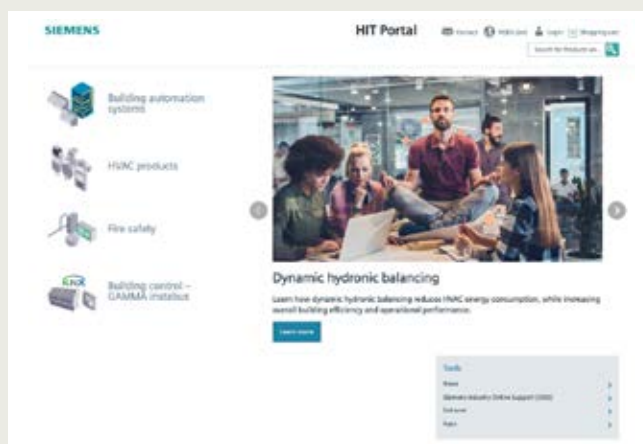
[siemens.com/bim](https://www.siemens.com/bim)



## HIT Portal

The HIT Portal spares you the time-consuming search for the right products when you're designing HVAC systems. The tool offers more than 400 preconfigured standard HVAC configurations, all classified by their potential energy savings in accordance with EN 15232. That means, you can select the application that best meets the desired efficiency class. Extensive specifications are available, including system diagrams, lists of materials and technical documentation for each device.

Try it out: [siemens.com/hit](https://www.siemens.com/hit)



## Training and support

Siemens supports you in every project step from the planning stage through the installation to the trouble-free operation. With Siemens standing by as your professional partner, you're well equipped to meet all your customers' challenges. In addition to practical tools and on-site support through the worldwide sales and service network, you also benefit from the knowledge of our experts. Whether you're looking for technical courses – for example, in hydronics – or product training, Siemens supports you every step of the way. Your contact at Siemens will be happy to help you sign up or you can go directly to My Learning Portal:

[siemens-learning.sabacloud.com](https://www.siemens-learning.sabacloud.com).





### **The Circle: 30 000 products from Siemens at Zurich Airport**

"The Circle" at Zurich Airport was opened on November 2020 and was the largest construction project in Switzerland for several years.

The new building park not only brings together companies from different industries, but is also a meeting and congress center with international appeal.

"The Circle" convinces with its sustainable construction, not least thanks to the building technology from Siemens, which is implemented in every room and actively contributes to the certified energy standard.

Siemens Switzerland installed more than 30,000 building and energy technology products for "The Circle" and was thus able to make an active contribution to sustainable construction with its holistic products and solutions. The components for heating, ventilation and air conditioning systems ensure a healthy, optimal and sustainable indoor climate throughout the complex. The installed field devices from Siemens support the entire building automation system. They are intelligent, fully automated and optimized for energy efficiency.

The modular design of Siemens HVAC components and building technology allows the system to be expanded or modified at any time, providing maximum flexibility and security for building operators, as well as for the future of today's buildings.

### **Create a healthy indoor climate**

We spend 90 percent of our lives indoors.

Nevertheless, the air quality inside buildings is often up to five times worse than the outdoor air quality.

A healthy indoor climate plays a major role in decreasing the risk of infection, reduces absenteeism, and increases productivity. Room air should never be too hot, too cold, or too dry. In this area, building automation makes a substantial contribution to the health and performance of building users.

Smart Infrastructure combines the real and digital worlds across energy systems, buildings and industries, enhancing the way people live and work and significantly improving efficiency and sustainability.

We work together with customers and partners to create an ecosystem that both intuitively responds to the needs of people and helps customers achieve their business goals.

It helps our customers to thrive, communities to progress and supports sustainable development to protect our planet for the next generation.

**[siemens.com/smart-infrastructure](https://www.siemens.com/smart-infrastructure)**

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