SIEMENS

4655

Rotary actuators for ball valves

GSD..41.9A

for ball valves VAI60.. / VBI60..,

AC 24 V / DC 24 V / AC 230 V

- **Electromotoric rotary actuators without spring return**
- **For On-Off control (2 wire SPDT)**
- **Pre-wired with 0.9 m long connection cable**

Use

- For open/close ball valves 2-port and changeover ball valves 3-port, internally threaded connections DN15 to DN25.
- Suitable for use with 2-position controllers.

Functions

Control	*On-Off **
Rotary direction	Clockwise or counter-clockwise, depending on the mounting position of the rotary actuator on the ball valve
Gear train disengagement slider	The rotary actuator can be manually adjusted by pressing the gear train disengagement slider

* 2 wires SPDT (Single Pole Double Throw)

Type summary

Type	*GSD141.9A*	*GSD341.9A*
Operating voltage	AC 24 V / DC 24 V	AC 230 V
Control	On-Off (2 wire)	

Equipment combinations

The rotary actuators are suitable for operating the following Siemens open/close ball valves (2-port) and changeover ball valves (3-port):

Type	k_{vs} [m^3/h]	*Rp*	*DN*	*PN*	*GSD..41.9E*		*Data Sheet*
					Δp_{max}	Δp_s	
VAI60.15-15	15	Rp ½“	15	PN40	350	1400	N4213
VAI60.20-22	22	Rp 1”	20				
VAI60.25-22	22	Rp 1”	25				
VBI60.15-5L	5	Rp ½“	15	PN40	350	–	N4213
VBI60.20-9L	9	Rp 1”	20				
VBI60.25-9L	9	Rp 1”	25				
VBI60.15-12T	12	Rp ½“	15	PN40	350	–	N4213
VBI60.20-16T	16	Rp 1”	20				
VBI60.25-16T	16	Rp 1”	25				

Notes

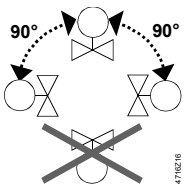
Mounting

Additional information on rotary actuators is available in document N4603.

Both ball valve and rotary actuator can easily be assembled at the mounting location. Neither special tools nor adjustments are required.

The rotary actuator is supplied with Mounting Instructions M4655 (74 319 0884 0). The ball valve VAI60.. / VBI60.. is supplied with mounting instructions M4213 (74 319 0883 0).

Orientation



Cables must be easily accessible.

Commissioning

When commissioning the system, check both wiring and rotary actuator functions.

Manual adjustment

The rotary actuator can be manually adjusted into any position between 0° and 90° by pushing the gear train disengagement slider.

If a control signal from the controller is present, this will take priority in determining the position after the slider is released.

⚠ For manual adjustment: Power off!

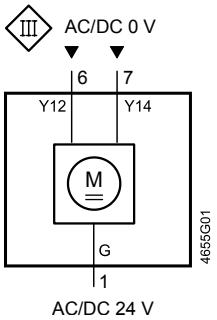
Technical data

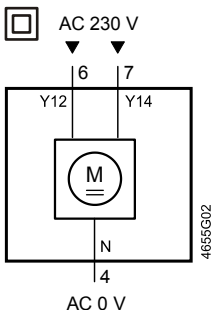
⚠ Supply voltage AC 24 V / DC 24 V (SELV / PELV)	Operating voltage	AC 24 V ± 20 %; 50 / 60 Hz DC 24 V ± 15 %
	Power consumption	
	Actuator running	2 VA / 1.5 W
	Holding	1 VA / 0.5 W
⚠ Supply voltage AC 230 V	Operating voltage	AC 230 V ± 15 %
	Frequency	50 / 60 Hz
	Fuse for power cable (fast)	2 A
	Power consumption	
	Actuator running	12 VA / 2 W
	Holding	12 VA / 2 W
Functional data	Nominal torque	2 Nm
	Nominal rotary angle / max. rotary angle	90° / 95 ± 2°
	Runtime for 90° rotary angle (motor operation)	30 s
Connection cable	Cross-section	0.75 mm^2
	Standard length	0.9 m
Degree of protection	As per EN 60529 (see M4655)	IP40
Protection class	Insulation class	EN 60730
	AC 24 V / DC 24 V	III
	AC 230 V	II
Environmental conditions	Operation / Transport	IEC 60721-3-3 / IEC 60721-3-2
	Temperature	-32...+55 °C / -32…+70 °C
	Humidity (non-condensing)	< 95 % r.h. / < 95 % r.h.
Standards and directives	Product standards	
	Automatic electrical controls for household and similar use	EN 60730-2-14 (Mode of operation, Type 1)
	Electromagnetic compatibility (EMC)	
	Immunity	IEC 61000-6-2
	Emissions	IEC 61000-6-3
	CE conformity	
	EMC directive	2004/108/EC
	Low voltage directive	2006/95/EC
	C-Tick conformity	
	Emissions	AS/NZS 61000-6-3
Weight	Without packaging:	
	GSD141.9A	0.63 kg
	GSD341.9A	0.64 kg

Internal diagrams

GSD..41.9A

GSD141.9A	*GSD341.9A*
On-Off control	

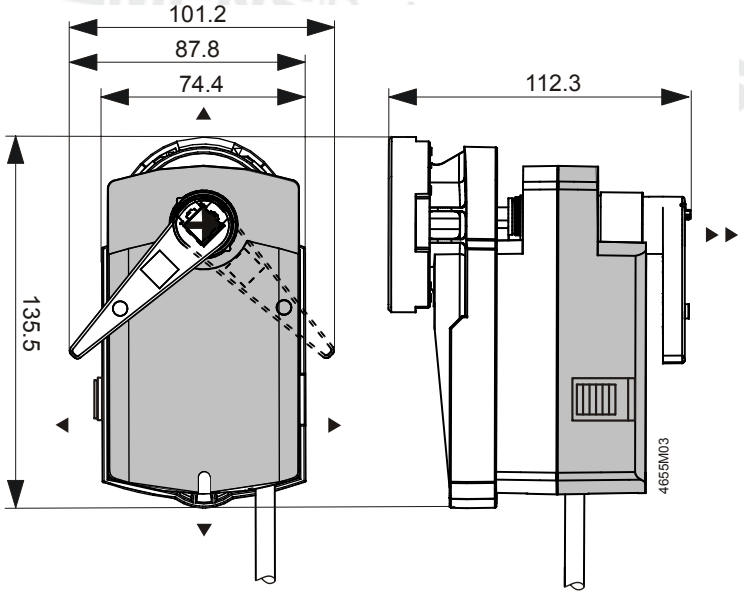




Cable designations

Connection	*Cable*				
	Code	*No.*	*Color*	*Abbr.*	*Meaning*
Rotary actuators AC/DC 24 V	G	1	red	RD	System potential AC 24 V / DC 24 V
	Y12	6	purple	VT	Positioning signal AC/DC 0 V "Clockwise"
	Y14	7	orange	OG	Positioning signal AC/DC 0 V "Counter-clockwise"
Rotary actuators AC 230 V	N	4	blue	BU	Neutral
	Y12	6	black	BK	Positioning signal AC 230 V "Clockwise"
	Y14	7	white	WH	Positioning signal AC 230 V "Counter-clockwise"

Dimensions



▶ = >100 mm
▶▶ = >200 mm

Min. clearance from ceiling or wall for mounting, connection, operation, maintenance, etc.

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