

<b>Technical data Part-turn actuators for open-close duty</b>	<b>SG 03.3 – SG 04.3 AUMA NORM</b>
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Part-turn actuators with 1-phase or 3-phase AC motors <sup>1)</sup>											
Type	Operating time for 90° in seconds 50 Hz		Torque both directions  max. Nm	Valve attachment		Valve shaft			Handwheel		Weight  approx. kg <sup>2)</sup>
	1-ph	3-ph		Standard EN ISO 5211	Option EN ISO 5211	Cylindrical max. mm	Square max. mm	Two-flat max. mm	Ø mm	Turns for 90°	
<b>SG 03.3</b>	8	8	32	F 05 F 07	F 04	15	14	11	100	13.5	8.3
	11	11									
	16	–									
	22	–									
<b>SG 04.3</b>	8	8	63	F 05 F 07	F 04	15	14	11	100	13.5	8.3
	11	11									
	16	26									
	22	22									
	32	32									
–	45										

**Application**

Part-turn actuator      Electrical operation of valves (e.g. butterfly valves and ball valves)

**Features and functions**

Type of duty	Short-time S2 - 15 min <sup>3)</sup>
Motors	Standard: 1-phase AC motor Option: 3-phase-AC motor
Insulation class	F, tropicalized
Motor protection	Standard: Thermoswitches Option: PTC thermistors
Self-locking	Yes
Operating times	See table
Swing angle	90° (adjustable from 82° to 98°)
Type of seating	Via limit switching
Limit switching	Counter gear mechanism for end positions OPEN and CLOSED Standard: Single switch (1 NC and 1 NO) for each end position, not galvanically isolated Option: Tandem switch (2 NC and 2 NO) for each end position, switches galvanically isolated
Intermediate positions (option)	Electronic intermediate position switches, max. 2 switching points, adjustable (only in combination with electronic position transmitter RWG 6020)
Position feedback signal (options)	Precision potentiometer Electronic position transmitter RWG 6020, 0/4 – 20 mA, voltage supply 24 V DC
Mechanical position indicator	Adjustable indicator disc with symbols OPEN and CLOSED, continuous indication
Running indication (option)	Possible in combination with blinker transmitter
Heater in switch compartment	Standard: Self-regulating heater, 5 – 20 W 110 – 250 V DC/AC or 24 – 48 V DC/AC Option: Resistance type heater, 5 W, 24 V DC (only in combination with the AUMA controls AM or AC)
Manual operation	Manual drive for setting and emergency operation, handwheel does not rotate during electric operation
Handwheel lockable (option)	Yes
<b>Electrical connection</b>	
Electrical connection	Standard: AUMA plug/socket connector with screw type connection Option: Double sealed (double sealed plug/socket connector)
Threads for cable glands	Standard: 1 x M20 x 1.5; 2 x M25 x 1.5 Options: Pg-threads NPT-threads
Terminal plan	1-phase AC motor: KMS B10101100 (basic version) 3-phase AC motor: KMS A10101100 (basic version)

**Valve attachment**

Valve attachment      Dimensions according to EN ISO 5211

1) Motor data see Electrical Data  
2) Weight with unbored coupling  
3) Based on 20 °C ambient temperature and an average load of approx. 50 % of max torque.



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Coupling	Splined coupling for connection to the valve shaft, part-turn actuator can be repositioned 4 x 90° on coupling Standard: Coupling without bore Options: Machined coupling with bore and keyway, square bore or bore with two-flats
<b>Service conditions</b>	
Mounting position	Any position
Enclosure protection according to EN 60 529	Standard: IP 67 Option: IP 68
Corrosion protection	Standard: KN Suitable for installation in industrial units, in water- or power plants with a low pollutant concentration <sup>4)</sup> Options: KS Suitable for installation in occasionally or permanently aggressive atmosphere with a moderate pollutant concentration (e.g. in waste-water treatment plants, chemical industry) KX Suitable for installation in extremely aggressive atmosphere with high humidity and high pollutant concentration
Ambient temperature	Standard: – 25 °C to + 70 °C
Finish coating	Standard: Two-component iron-mica combination
Standard colour	Grey (DB 702, similar to RAL 9007)
Lifetime	Operating cycles OPEN - CLOSE - OPEN for 90° SG 03.3 – SG 04.3: 20,000
<b>Miscellaneous</b>	
Reference documents	Brochure SG 03.3 – SG 04.3 Dimension sheet SG 03.3 – SG 05.3 Electrical data sheets SG 03.3 – SG 04.3



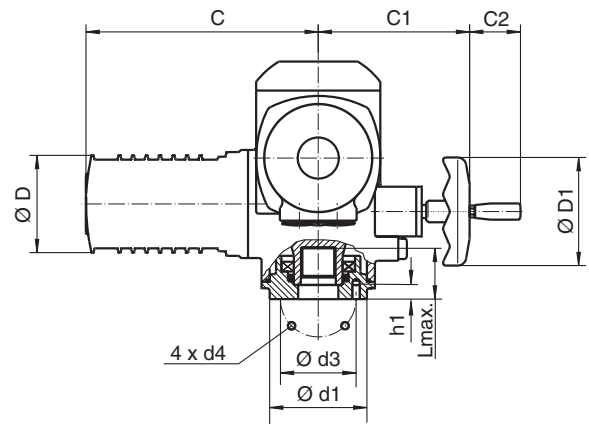
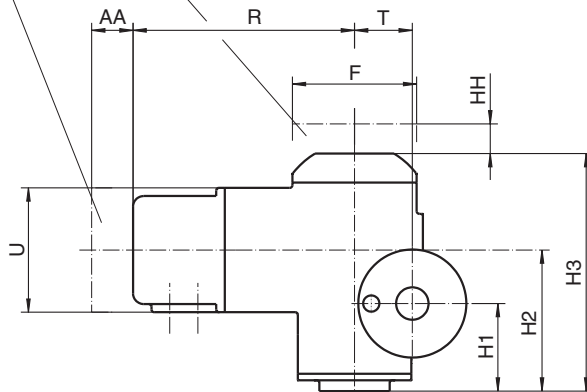
4) If an occasional or permanent exposure to aggressive substances is to be expected, we recommend a higher corrosion protection KS or KX.

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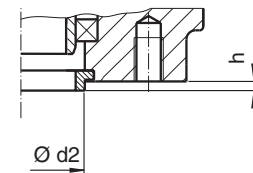
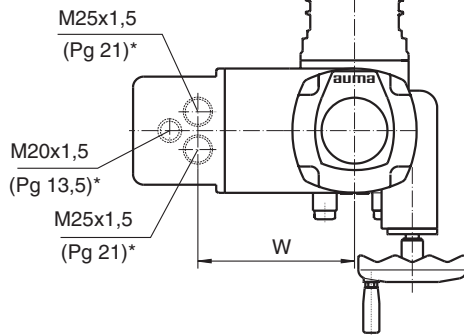
Part-turn actuators

SG 03.3 - SG 05.3  
SGR 03.3 - SGR 05.3

Space required for removal



Version N without spigot



Version Y with spigot

Valve attachment according to EN ISO 5211  
Dimensions of couplings see next page

\* Steel conduit threads only if ordered



Dimensions	EN ISO 5211	C	C1	C2	ØD	ØD1	F	H1	H2	H3	L max.	R
SG/SGR 03.3 SG/SGR 04.3	F 04	215	119	47	94	100	115	69	118	207	35	195
	F 05											
	F 07											
SG/SGR 05.3	F 05	215	140	47	94	100	115	81	144	233	45	195
	F 07											

Dimensions	EN ISO 5211	T	U	W	AA min.	HH min.	Ød1	Ød2 f8	Ød3	d4	h	h1
SG/SGR 03.3 SG/SGR 04.3	F 04	42	115	135	30	40	54	30	42	M5	2,5	8
	F 05						90	35	50	M6	2,5	9
	F 07						90	55	70	M8	2,5	12
SG/SGR 05.3	F 05	54	115	135	30	50	90	35	50	M6	2,5	9
	F 07						90	55	70	M8	2,5	12

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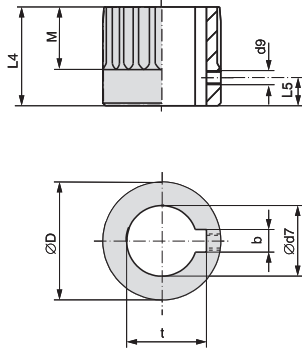


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**SG 03.3 - SG 05.3  
SGR 03.3 - SGR 05.3**

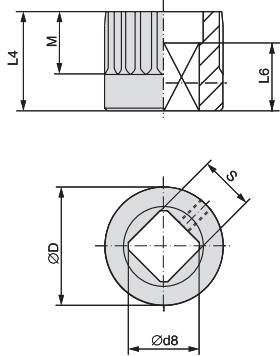
**Dimensions coupling**

Bore acc. to EN ISO 5211 with keyway acc. to DIN 6885 part 1



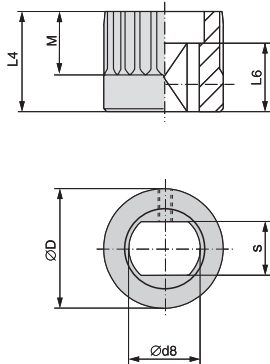
Type	SG 03.3 SGR 03.3			SG 04.3 SGR 04.3			SG 05.3 SGR 05.3	
	EN ISO 5211	F04	F05	F07	F04	F05	F07	F05
Ø D	24,8			24,8			31,75	
b JS9 <sup>1)</sup>	-	4	-	-	5	5	6	
Ø d7 H8 <sup>2)</sup>	-	12	-	-	14	14	18	
Ø d7 max.	15			15			20	
d9 <sup>3)</sup>	M4			M4			M4	
L 4	25			25			35	
L 5 <sup>3)</sup>	5			5			8	
M	17			17			20	
t <sup>1)</sup>	-	13,8	-	-	16,3	16,3	20,8	

Square bore acc. to EN ISO 5211



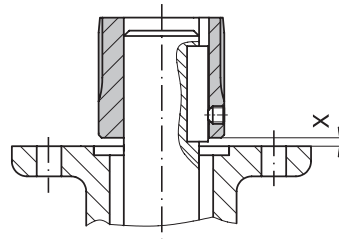
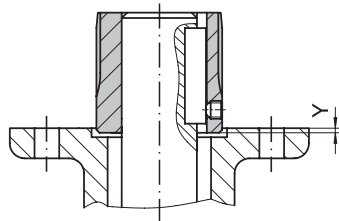
Ø D	24,8			24,8			31,75	
Ø d8 min. <sup>2)</sup>	14,1			14,1			18,1	
Ø d8 max.	18,1			18,1			22,2	
L 4	25			25			35	
L 6 min.	25			25			30	
M	17			17			20	
s H11 <sup>2)</sup>	11			11			14	
s H11 max.	14			14			17	

Bore with two-flats acc. to EN ISO 5211



Ø D	24,8			24,8			31,75	
Ø d8 min. <sup>2)</sup>	14,1			14,1			18,1	
Ø d8 max.	18,1			18,1			22,2	
L 4	25			25			35	
L 6 min.	25			25			25	
M	17			17			20	
s H11 <sup>2)</sup>	11			11			14	
s H11 max.	14			14			17	

Mounting position of coupling



- 1) Dimensions depend on Ø d7, refer to DIN 6885 part 1
- 2) recommended size according to EN ISO 5211
- 3) Thread and grub screw

X max.	10	8	8	10	8	8	5	5
Y max.	0	2	2	0	2	2	8	8

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