


Technical data Multi-turn actuators for open-close duty with 3-phase AC motors								SAEx 25.1 – SAEx 40.1 AUMA NORM									
Type	Output drive rpm		Torque range ¹⁾ for type of duty			Running torque ²⁾ for type of duty		Valve attachment		Valve stem diameter	Handwheel		approx. kg ⁵⁾				
	50 Hz	60 Hz	min. Nm	S2-15 min max. Nm	S2-30 min max. Nm	S2-15 min max. Nm	S2-30 min max. Nm	Standard EN ISO 5210	Option DIN 3210	for rising valve stem ³⁾ max. mm	Ø mm	reduc- tion ratio					
SAEx 25.1	4	4.8	630	2,000	1,400	700	350	F25	G4	95	400	45 : 1	155				
	5.6	6.7										32 : 1					
	8	9.6										45 : 1					
	11	13										32 : 1					
	16	19										45 : 1					
	22	26				600	300					32 : 1					
	32	38										45 : 1					
	45	54										32 : 1					
	63	75				500	250					45 : 1					
90	108			32 : 1													
SAEx 30.1	4	4.8	1,250	4,000	2,800	1,400	700	F30	G5	115	500	45 : 1	195				
	5.6	6.7										32 : 1					
	8	9.6										45 : 1					
	11	13										32 : 1					
	16	19										45 : 1					
	22	26				1,200	600					32 : 1					
	32	38										45 : 1					
	45	54				900	450					32 : 1					
	63	75										45 : 1					
90	108	700	350	32 : 1													
SAEx 35.1	4	4.8	2,500	8,000	5,700	2,800	1,400	F35	G6	155	400	180 : 1	415				
	5.6	6.7										125 : 1					
	8	9.6										180 : 1					
	11	13										125 : 1					
	16	19										180 : 1					
	22	26				2,400	1,200					125 : 1					
	32 ⁴⁾	38 ⁴⁾										90 : 1					
	45 ⁴⁾	54 ⁴⁾				2,000	1,000					64 : 1					
SAEx 40.1	4	4.8	5,000	16,000	11,200	5,600	2,800	F40	G7	175	500	180 : 1	515				
	5.6	6.7										125 : 1					
	8	9.6										180 : 1					
	11	13										125 : 1					
	16	19										180 : 1					
	22	26				4,800	2,400					125 : 1					
	32 ⁴⁾	38 ⁴⁾										125 : 1					
						14,000	9,800					4,000		2,000			90 : 1
General information																	
For operation of multi-turn actuators AUMA NORM, electric actuator controls are required.																	
Features and functions																	
Explosion protection			Standard: II2G EEEx ed IIB T4 II2G c IIB T4 Options: II2D Ex tD A21 IP 6X T130 °C II2G EEEx ed ib IIB T4 (with RWG) II2G c IIB T4														
EC type examination certificate			PTB 03 ATEX 1123														
Type of duty ⁶⁾			Standard: Short-time duty S2 - 15 min Option: Short-time duty S2 - 30 min														
Motors			3-phase asynchronous motor, type IM B9 according to IEC 34														
Insulation class			Standard: F, tropicalized Option: H, tropicalized														
Motor protection			Standard: PTC thermistors (according to DIN 44082) ⁷⁾ Option: Thermoswitches (NC) ⁸⁾														
Self-locking			Yes (for SAEx 25.1 and SAEx 30.1 speed 4 - 90 rpm, for SAEx 35.1 and SAEx 40.1 speed 4 - 22 rpm)														
Torque switching			Torque switching for directions OPEN and CLOSE, adjustable in any position Standard: Single switch (1 NC and 1 NO) for each direction Options: Tandem switches (2 NC und 2 NO) for each direction, switches galvanically isolated														
1) Tripping torque adjustable for both directions 2) Permissible average torque over the total travel 3) For output drive types A and B1 4) Not self-locking 5) Weight for multi-turn actuator AUMA NORM with 3-phase AC motor, standard electrical connection, output drive type B1 and handwheel 6) For nominal voltage and 20 °C ambient temperature and at average running torque load. The type of duty must not be exceeded. 7) PTC thermistors additionally require a suitable tripping device within the actuator controls. 8) In compliance with EN 60079-14/VDE 0165, thermal overload relays (e.g. motor protection switch) must be installed for explosion-proof actuators, in addition to the thermoswitches.																	
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SAEx 25.1 – SAEx 40.1 AUMA NORM		Technical data Multi-turn actuators for open-close duty with 3-phase AC motors	
Limit switching	Counter gear mechanism for end positions CLOSED and OPEN for 1 to 500 turns per stroke (optional 1 to 5,000 turns per stroke) Standard: Single switch (1 NC and 1 NO) for each end position Options: Tandem switches (2 NC and 2 NO) for each end position, switches galvanically isolated Triple switches (3 NC and 3 NO) for each end position, switches galvanically isolated Intermediate position switches (DUO limit switching), adjustable to any position		
Position feedback signal, analogue (options)	Potentiometer or 0/4 – 20 mA (RWG, intrinsically safe) For further details refer to separate data sheet		
Mechanical position indicator (option)	Continuous indication, adjustable indicator disc with symbols OPEN and CLOSED		
Running indication (option)	Blinker transmitter		
Heater in switch compartment	Standard: Resistance type heater, 6 W, 220 – 240 V AC/DC Options: 110 – 120 V AC/DC, 48 V AC/DC, 24 V AC/DC		
Motor heater (option)	110 – 120 V AC/DC: 50 W 220 – 240 V AC/DC: 50 W 380 – 400 V AC/DC: 22 W		
Manual operation	Manual drive for setting and emergency operation, handwheel does not rotate during motor operation. Option: Handwheel lockable		
Electrical connection	Standard: Terminals		
Threads for cable entries	Standard: Metric threads Options: Pg-threads, NPT-threads, G-threads		
Terminal plan	KMS TP200/001 (basic version)		
Output drive types	A, B1, B2, B3, B4 according to EN ISO 5210 A, B, D, E according to DIN 3210 C according to DIN 3338 Special output drives: AF, B3D, DD, ED, IB1, IB3		
Service conditions			
Mounting position	Any position		
Enclosure protection according to EN 60 529 ⁹⁾	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 Options: KS Suitable for installation in occasionally or permanently aggressive atmosphere with a moderate pollutant concentration (e.g. in wastewater treatment plants, chemical industry) KX Suitable for installation in extremely aggressive atmosphere with high humidity and high pollutant concentration KX-G Same as KX, however aluminium-free version (outer parts)		
Finish coating	Standard: Two-component iron-mica combination		
Colour	Standard: AUMA silver-grey (similar to RAL 7037) Option: Other colours are possible upon request		
Ambient temperature ¹⁰⁾	Standard: –40 °C up to +40 °C/60 °C Options: –50 °C up to +40 °C/60 °C (low temperature)		
Lifetime	Operating cycles OPEN - CLOSE - OPEN with 30 turns per stroke: SAEx 25.1 – SAEx 30.1: 10,000 SAEx 35.1 – SAEx 40.1 5,000		
Further information			
EU Directive	ATEX Directive: (94/9/EC) Electromagnetic Compatibility (EMC): (2004/108/EC) Low Voltage Directive: (2006/95/EC) Machinery Directive: (98/37/EC)		
Reference documents	Product description "Electric multi-turn actuators SA" Information "Electric actuators and valve gearboxes according to ATEX Directive..." Dimensions SAEx 25.1 – SAEx 40.1/SAREx 25.1 – SAREx 30.1 Electrical data SAEx 25.1 – SAEx 40.1		
9) For version in enclosure protection IP68, higher corrosion protection KS or KX is strongly recommended. 10) Under certain conditions (special sizing), possible up to +60 °C			
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