

Technical data Fail safe unit

Type	Fail safe operation in s/90° ¹⁾	Min. Torque	Suitable part-turn actuator		Valve attachment		Valve shaft			Weight ²⁾
	Can be set in the factory	[Nm]	Type	Possible operating times s/ 90°	Standard ISO 5211	Option ISO 5211	Cylindrical Max. [mm]	Square Max. [mm]	Two-flat Max. [mm]	approx. [kg]
FQM 05.1	9 – 34	150	SQ 05.2	5.6 – 32	F07	F10	25.4	22	22	63
FQM 07.1	8 – 26	300	SQ 07.2	5.6 – 32	F10	F07	25.4	22	22	66
FQM 10.1	15 – 54	600	SQ 10.2	11 – 63	F12	F10 ³⁾	50	36	36	137
FQM 12.1	13 – 39	1,200	SQ 12.2	22 – 63	F14	F12	50	36	36	140

- 1) The operating time increases with the torque requirement.
- 2) The weights of SQ .2 part-turn actuators and the AC .2 actuator controls have to be added.
- 3) Only possible with reduction flange.

Features and functions

Type of duty	Open-close duty:	Short-time duty S2 - 15 min, classes A and B according to ISO 22153
	Modulating duty:	Intermittent duty S4 - 25 %, class C according to ISO 22153 (not available in SIL version)
Mains voltage, mains frequency	Standard voltages: Refer to table: 3-phase AC standard voltages ► 1) Special voltages: Refer to table: 1-phase AC special voltages ► 1) Further voltages on request. Permissible variation of mains voltage: ±10 % Permissible variation of mains frequency: -5 %	
Overvoltage category	Category III according to IEC 60364-4-44	
ESD input	24 V DC, current consumption: approx. 1 A Permissible voltage variation: +20 %/-15 %	
Status signal	Single switch (1 NC and 1 NO) for each end position, galvanically isolated for OPEN and CLOSED: max. 0.1 A at 30 V DC Output contact for Fail safe function ready signal: max. 0.1 A at 30 V DC	
Swing angle	Adjustable between 80° and 96°	
Electrical connection	Standard:	AUMA plug/socket connector with screw-type connection
	Options:	Terminals or crimp-type connection
Threads for cable entries	Standard:	Metric threads
	Option:	NPT threads, G threads
Terminal plan	Terminal plan according to order number enclosed with delivery	
Splined coupling for connection to the valve shaft	Standard:	Coupling without bore
	Options:	Machined coupling with bore and keyway, square bore or bore with two-flats according to EN ISO 5211
Valve attachment	Dimensions according to EN ISO 5211 without spigot	

Table 1: 3-phase AC standard voltages

Voltages/frequencies				
Volt [3~]	200 – 240	200 – 240	380 – 690	380 – 690
Hz	50	60	50	60

Table 2: 1-phase AC special voltages

Voltages/frequencies		
Volt [1~]	100 – 120	100 – 120
Hz	50	60

Service conditions

Use	Indoor and outdoor use permissible	
Mounting position	Vertical and horizontal position (for horizontal mounting position, a support is required) The mounting position pointing downward is not permitted.	
Installation altitude	≤ 2,000 m above sea level > 2,000 m above sea level on request	
Ambient temperature	Standard:	–30 °C to +70 °C
	Option:	–40 °C to +60 °C
	For exact version, refer to actuator name plate.	
Humidity	Up to 100 % relative humidity across the entire permissible temperature range	

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Enclosure protection according to EN 60529	IP68	
	According to AUMA definition, enclosure protection IP68 meets the following requirements: • Depth of water: maximum 8 m head of water • Continuous immersion in water: maximum 96 hours	
Pollution degree according to IEC 60664-1	Pollution degree 4 (when closed), pollution degree 2 (internal)	
Vibration resistance according to IEC 60068-2-6	FQM 05.1/07.1 with valve attachment F07 = 0,3 g, 10 – 200 Hz FQM 05.1/07.1 with valve attachment F10 = 0,5 g, 10 – 200 Hz FQM 10.1/12.1 with valve attachment F10 = 0,3 g, 10 – 200 Hz FQM 10.1/12.1 with valve attachment F12 = 0,5 g, 10 – 200 Hz Resistant to vibration during startup or for plant failures. However, a fatigue strength may not be derived from this.	
Corrosion protection	Standard:	KS Suitable for use in areas with high salinity, almost permanent condensation, and high pollution.
	Option:	KX Suitable for use in areas with extremely high salinity, permanent condensation, and high pollution.
Coating	Double layer powder coating	
Colour	Standard:	AUMA silver-grey (similar to RAL 7037)
	Option:	Available colours on request
Lifetime	500 fail safe operation (ESD cycles) AUMA fail safe units meet or even exceed the lifetime requirements of EN 15714-2 in motor operation. Detailed information can be provided on request.	