Inquiry, quotation and order form for actuator controls AUMATIC with fieldbus interface

AC 01.1 Fieldbus

Actuator controls AUMATIC AC 01.1 for controlling AUMA multi-turn actuators AUMA NORM SA(R) 07.1 – SA(R) 16.1 and part-turn actuator AUMA NORM SG 05.1 – SG 12.1 and SG 03.3 – SG 05.3.
Reference documents: Product description and technical data Actuator controls AUMATIC

☐ **Inquiry** _____
☐ **Quotation** _____
☐ **Order** _____
Order date : _____
Delivery date : _____
Quantity:____ **AC 01.1**

Project _____
Code _____
Shipping by:
☐ Forw. agent
☐ Sea freight ☐ Air freight
☐ _____

For version without fieldbus interfaces see separate order form

	Ordering code	Prices in €
Basic price	AC 01.1	_____
Supply voltage / motor voltage		
3-phase AC voltages/frequencies		
☐ ***400/50*** ☐ 220/50 ☐ 230/50 ☐ 240/50 ☐ 380/50		
☐ 415/50 ☐ 440/60 ☐ 460/60 ☐ 480/60 ☐ 500/50		
1-phase AC voltages/frequencies		
☐ 110/60 ☐ 115/60 ☐ 120/60 ☐ 220/50 ☐ 230/50 ☐ 240/50		
☐ other than standard _____		_____
☐ external 24 V DC supply of electronics	AC021.01	_____
Motor controls		
☐ ***Reversing contactors for motor power up to 1.5 kW***	AC010.01-W	
☐ Reversing contactors for motor power up to 7.5 kW	AC011.01-W	_____
Thyristor unit instead of reversing contactors for supply voltage up to 500 V, recommended for a high number of starts		
☐ or motor power up to 1.5 kW with internal fuses	AC012.01-T	_____
☐ for motor power up to 5.5 kW	AC012.02-ET	_____
Fieldbus interface		
☐ **Profibus DP interface** according to EN 50 170 P1+3	AC090.03	_____
☐ Profibus DP - V1 services, programming via bus	AC089.01	_____
☐ **Modbus RTU interface**	AC120.03	_____
☐ **DeviceNet interface** according to EN 50 325-2	AC110.03	_____
Fieldbus interface with additional inputs		
☐ Fieldbus interface with 4 free 24 V DC inputs and 2 free 0/4 – 20 mA inputs. Signal transmission via fieldbus interface.	AC139.00	_____
☐ Fieldbus interface with 24 V DC control inputs OPEN – CLOSE – EMERGENCY. Selection of control mode via 24 V DC input BUS/REMOTE.	AC139.02	_____
☐ Fieldbus interface with 24 V DC control inputs OPEN – CLOSE and 0/4 – 20 mA input for nominal position value (positioner). Selection of control mode via 24 V DC inputs BUS/REMOTE and MODE.	AC139.01	_____
☐ Fieldbus interface with 24 V DC control inputs OPEN – STOP – CLOSE – EMERGENCY and 0/4 – 20 mA input for nominal position value (positioner). Selection of control mode via 24 V DC inputs BUS/REMOTE and MODE. Position feedback 0/4 – 20 mA.	AC051.05	_____
Output signals via 6 programmable signal relays:		
☐ Standard with one common M1 = End position OPEN M2 = End position CLOSED M3 = REMOTE M4 = Torque fault CLOSE M5 = Torque fault OPEN Fault relay = fault 3 (phase failure, motor protection, torque fault)		
☐ Special (special configuration see page 3) M1 = M2 = M3 = M4 = M5 = Fault relay =		
☐ 5 programmable signal relays with potential-free NO/NC contacts <u>without</u> one common, max. 250V / 5 A		
Voltage output		
☐ 24V DC, max. 100 mA	AC020.01	
☐ 115V AC, max. 30 mA	AC020.02	_____
Redundancy		
☐ via additional fieldbus interface (Profibus DP or Modbus RTU)	AC_ _ _.03	_____
Overvoltage protection		
☐ for fieldbus interface, 4 kV	SD-_ _/U-_ _ _	_____

Total carried forward to page 3 _____

Note: The respective standard version is printed in ***semibold italics***

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	Ordering code	Prices in €
Fibre optic connection		
☐ for star topology (Profibus DP, Modbus RTU)	SD-_ _/LS-_ _ _	_____
☐ for linear topology (Profibus DP, Modbus RTU)	SD-_ _/LL-_ _ _	_____
☐ for ring topology (Profibus DP)	SD-_ _/LR-_ _ _	_____
Process controller PID		
☐ Process controller PID with adaptive positioner. Nominal process value via fieldbus interface, 0/4 – 20 mA input for actual process value.	AC150.05	_____
Multiport valve function		
☐ Approaching of up to 8 intermediate positions via the fieldbus interface and the local controls.	AC169.01	_____
☐ **Position feedback** — **Position transmitter in actuator**		
☐ via the fieldbus interface — ☐ Potentiometer ☐ RWG ☐ MWG		
☐ **Torque feedback (in combination with MWG in actuator)**		
☐ via the fieldbus interface		
Type of seating end pos. CLOSED — **Type of seating end pos. OPEN**		
☐ Limit seating ☐ Torque seating — ☐ Limit seating ☐ Torque seating		
Local controls		
Self-retaining Local ☐ included ☐ not included		
☐ Release of the local controls via the fieldbus interface	AC035.05	_____
☐ with selector switch LOCAL – OFF – REMOTE	AC030.01	
☐ without selector switch LOCAL – OFF – REMOTE	AC030.03	
☐ Protection cover, lockable	37-AC	_____
☐ Protection cover with indicator glass, lockable	37-S-AC	_____
☐ ***5 indication lights: end position CLOSED (yellow), torque fault CLOSE (red), torque fault OPEN (red), motor protection tripped (red), end postion OPEN (green)***		
☐ 5 programmable indication lights, special colours: end position CLOSED (green), torque fault CLOSE (blue), torque fault OPEN (yellow), motor protection tripped (white), end position OPEN (red)	AC031.10	_____
Motor protection		
☐ ***Motor temperature monitoring (thermoswitches in actuator)***		
☐ Additional thermal overload relay	AC017._ _	_____
☐ PTC tripping device in connection with PTC thermistors in the actuator	AC016.02	_____
Enclosure protection		
☐ ***IP 67***	IP67	
☐ IP 68	IP68	_____
☐ Terminal compartment additionally sealed against interior (double sealed), possible in combination with IP 67 (IP 67-DS) or IP 68 (IP 68-DS)	DS	_____
☐ Cable glands for enclosure protection IP 67 or IP 68. Please state cable diameters _____		on request
Corrosion protection		
☐ ***KN incl. painting in standard colour***	KN	_____
☐ KS incl. painting in standard colour (recommended for installation in aggressive atmosphere, with a moderate pollutant concentration)	KS	_____
☐ KX incl. painting in standard colour (recommended for installation in extremely aggressive atmosphere, with a high pollutant concentration)	KX	_____
Colour		
☐ other than standard colour (for available colours, please contact AUMA) Colour _____		_____
☐ Special primer / special finish coat _____		_____
Accessories		
☐ Wall bracket for mounting of AUMATIC separate from actuator, including plug/ socket connector, (connecting cables on request).	39.1	_____
☐ EMERGENCY-OFF button	SDN-_ _ _	_____
☐ Programming software COM-AC incl. interface cable	AC200.01	_____

Total carried forward to page 3 _____

Note: The respective standard version is printed in ***semibold italics***

	Ordering code	Prices in €
Electrical connection		
☐ ***Plug cover with M-threads 4 x M20 x 1.5 / 2 x M25 x 1.5***	SD-137	included in basic price
☐ Plug cover with Pg-threads 4 x Pg 13.5 / 2 x Pg 21	SD-102	without price adder
☐ Plug cover with NPT-threads 1 x ½" NPT / 4 x ¾" NPT	SD-181	_____
☐ Plug cover with G-threads 1 x ½" G / 4 x ¾" G	SD-182	_____
☐ Special threads _____		_____
☐ Control plug gold plated (sockets and pins) recommended in connection with gold contacts in switches	S-G-xx	_____
☐ Parking frame for plug, when removed from actuator	95	_____
☐ Protection cover for plug compartment (when plug is removed)	96.1	_____
Wiring diagram		
ACP _____		
KMS ___ TP _____		

Total carried forward from page 1	_____
Total carried forward from page 2	_____
Price total / unit	_____
x quantity ____	_____
Price total	_____

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Only in combination with ordering code 51.05

Please state requested value (0...38) on **page 1** under fieldbus interface with additional inputs: **Special**

Fault signal relays

0	Fault 1	Fault + Not ready
1	Fault 2	Fault + Not ready without torque fault
2	Fault 3	Fault
3	Fault 4	Fault without torque fault
4	Fault 5	Fault + Not ready + Warning
5	Fault 6	Fault + Not ready without thermal fault
6	Fault 7	Fault + Not ready without torque fault + without thermal fault
7	Fault 8	Fault without thermal fault
8	Fault 9	Fault without torque fault and without thermal fault
9	Fault 10	Fault + Not ready + Warnings without thermal fault

Signal relays

0	No signal	Relay is not used
1	End position CLOSED	Signal LSC (WSR) or LSC (WSR) + TSC (DSR) (according to type of seating)
2	End position OPEN	Signal LSO (WOEL) or LSO (WOEL) + TSO (DOEL) (according to type of seating)
3	Running CLOSE	Actuator is running logically CLOSE
4	Running OPEN	Actuator is running logically OPEN
5	Actuator moving	Actuator is running from LOCAL, REMOTE, or in manual operation (without position transmitter only LOCAL or REMOTE operation is indicated)
6	LSC (WSR)	Limit switch CLOSE operated
7	LSO (WOEL)	Limit switch OPEN operated
8	TSC (DSR)	Torque switch CLOSE operated
9	TSO (DOEL)	Torque switch OPEN operated
10	Thermal fault	Motor protection has tripped
11	Torque fault (CLOSE)	Torque fault in direction CLOSE occurred
12	Torque fault (OPEN)	Torque fault in direction OPEN occurred
13	Torque fault (general)	Torque fault CLOSE or OPEN (combined signal)
14	Setpoint E1 loss	Loss of setpoint
15	Feedback E2 loss	Loss of actual value feedback
16	Spare	
17	Torque E6 loss	Loss of MWG
18	Warning operating time	The programmed max. operating time for an open-close operation has been exceeded
19	Warning starts/run	The max. number of cycles/h or the max. running time/h has been exceeded.
20	LOCAL switch position	Selector switch is in position LOCAL
21	REMOTE switch position	Selector switch is in position REMOTE
22	OFF switch position	Selector switch is in position OFF
23	REMOTE mode	Operation mode REMOTE active
24	SETPOINT mode	Operation mode SETPOINT active
25	Intermediate position 1	Signalising intermediate position 1 reached
26	Intermediate position 2	Signalising intermediate position 2 reached
27	Intermediate position 3	Signalising intermediate position 3 reached
28	Intermediate position 4	Signalising intermediate position 4 reached
29	Stepping mode	Programmed stepping range has been reached
30	Closing blink	The signal curve is according to the optical signal End position CLOSED at the local controls, including the programmed blinker signal
31	Opening blink	The signal curve is according to the optical signal End position OPEN at the local controls, including the programmed blinker signal
32	Fault indication	Faults; includes: internal faults, torque faults, phase failure, thermal fault
33	Warning indication	Warnings; includes: internal warnings, operating time warning, warning starts/run, no reference operation, losses of signal
34	Not ready indication	No external control possible
35	Setpoint reached	Actuator is in nominal position
36	Loss of phase	One phase is missing
37	I/O1 Analog IN2 loss	Loss of signal at parallel interface analogue input 2
38	I/O1 Analog IN1 loss	Loss of signal at parallel interface analogue input 1