Legend for AUMA MATIC

S1TSCTorque switch, closing, clockwise rotationS2TSO (DOEL)Torque switch, opening, counterclockwise rotationS3LSC (WSR)Limit switch, closing, clockwise rotationS4LSO (WOEL)Limit switch, opening, counterclockwise rotationS4/2DSR 1Torque switchs, in tandem arrangement with DSR/DOEL (TSC/TSO)S3/2WSR 1Limit switches, in tandem arrangement with WSR/WOEL (LSC/LSO)S3/3WSR 2Limit switches, in tandem arrangement with WSR/WOEL (LSC/LSO)S3/4WOEL 2in triple arrangement with WSR/WOEL (LSC/LSO)S5/4WOEL 3Limit switches, in quadruple arrangement with WSR/WOEL (LSC/LSO)S5/4WOEL 3Limit switches, adjustableS6WDRLimit switches, DUO, for 2 intermediate positions, adjustableS6/2WDR 1Limit switches, DUO, for 2 intermediate positions adjustableS7/2WDL 1Limit switches, DUO, for 2 intermediate position transmitter MSGS7/2WDR 1Limit switches, DUO, for 2 intermediate position transmitter MSGS7/2WDR 1Limit switches, DUO, for 2 intermediate position transmitter MSGS7/2WDR 1Limit switches, SignalisationS1/2THThermoswitche Cosition transmitter MSGS7/2WD 1Thermoswitche Cosition transmitter MSGS7/2THThermoswitche Cosition transmitter MSGS7/2S7/2S1/2PotentiometerS7/2THThermoswitche Cosition transmitter MSGS7/2TH <th colspan="6">Legend for actuator</th>	Legend for actuator					
S3LSC (WSR)Limit switch, closing, clockwise rotationS4LSO (WOEL)Limit switch, opening, counterclockwise rotationS1/2DSR 1Torque switches, in tandem arrangement with DSR/DOEL (TSC/TSO)S2/2WSR 1Limit switches, in tandem arrangement with WSR/WOEL (LSC/LSO)S3/3WSR 2Limit switches, in tandem arrangement with WSR/WOEL (LSC/LSO)S3/4WOEL 1Limit switches, in quadruple arrangement with WSR/WOEL (LSC/LSO)S3/4WSR 3Limit switches, in quadruple arrangement with WSR/WOEL (LSC/LSO)S5BLBlinker transmitterS6WDRLimit switches, DUO, for 2 intermediate positions, adjustableS6/2WDR 1Limit switches, DUO, for 2 intermediate positions adjustableS7/2WDL 1Limit switches, DUO, for 2 intermediate position transmitterS6/2WDR 1Limit switches, DUO, for 2 intermediate position transmitterS6/2WDR 1Limit switches, DUO, for 2 intermediate position transmitterS7/2WDL 1Intandem arrangement with WDR/WDL (LSA/LSB)B1/82EWG/RWG RVG2-wire or 4-wire system/inductive position transmitterS7/2THThermoswitchF1/2THThermoswitchF1/2THThermoswitchF1/2THThermoswitchR2/3f3Potentiometer in tandem arrangement with R 2R2/4F2Potentiometer in triple arrangement with R 2R2/3F3PTC 1R3/4FC 2PTC thermistor	S1	TSC	Torque switch, closing, clockwise rotation			
S4LS0 (WOEL)Limit switch, opening, counterclockwise rotationS1/2DSR 1Torque switches, in tandem arrangement with DSR/DOEL (TSC/TSO)S3/2WSR 1Limit switches, in tandem arrangement with WSR/WOEL (LSC/LSO)S3/3WSR 2Limit switches, in triple arrangement with WSR/WOEL (LSC/LSO)S3/4WSR 3Limit switches, in quadruple arrangement with WSR/WOEL (LSC/LSO)S4/4WOEL 1Blinker transmitterS5BLBlinker transmitterS6WDRLimit switches, DUO, for 2 intermediate positions, adjustableS7/2WDR 1Limit switches, DUO, for 2 intermediate positions, adjustableS6/2WDR 1Limit switches, DUO, for 2 intermediate positions, adjustableS7/2WDR 1Limit switches, DUO, for 2 intermediate position transmitter 3-wire or 4-wire system/electronic position transmitter 3-wire or 4-wire system/electronic position transmitterB1/B2EWG/RWG WG2-wire system/electronic position transmitter 3-wire or 4-wire system/inductive position transmitter 3-wire or 4-wire system/inductive position transmitterB3/B4EWG/RWG RG2-wire system/electronic position transmitter 3-wire or 4-wire system/inductive position transmitter 3-wire or 4-wire system/electronic position transmitter 3-wire or 4-wire system/electronic position transmitterB1/B2FMThe ThermoswitchF1THThermoswitchF1THThermoswitchR1HHeater in switch compartmentR2f1Potentiometer in tandem arrangement with R 2R2 </td <td>S2</td> <td>TSO (DOEL)</td> <td>Torque switch, opening, counterclockwise rotation</td>	S2	TSO (DOEL)	Torque switch, opening, counterclockwise rotation			
\$1/2 \$2/2DSR 1 DDEL 1Torque switches, in tandem arrangement with DSR/DDEL (TSC/TSO)\$3/2 \$4/2WSR 1 in tandem arrangement with WSRWDEL (LSC/LSO)\$3/3 \$4/3WSR 2 wOEL 2Limit switches, in triple arrangement with WSRWDEL (LSC/LSO)\$3/4 \$4/4WSR 3 wOEL 3Limit switches, in quadruple arrangement with WSRWDEL (LSC/LSO)\$5/5 \$4/4BLBlinker transmitter\$5 \$5 \$1BLBlinker transmitter\$6/2 \$1/2WDR 1 adjustableLimit switches, DUO, for 2 intermediate positions, adjustable\$6/2 \$1/2WDR 1 in tandem arrangement with WDR/WDL (LSC/LSO)\$6/2 \$1/2WDR 1 in tandem arrangement with WDR/WDL (LSC/LSO)\$6/2 \$1/2WDR 1 in tandem arrangement with WDR/WDL (LSC/LSO)\$6/2 \$1/2WDR 1 in tandem arrangement with WDR/WDL (LSA/LSB)\$1/82 \$1/2EWG/RWG 2 swire or 4-wire system/inductive position transmitter 3-wire or 4-wire system/inductive position transmitter\$1/82 \$1/2EWG/RWG 2 swire system/inductive position transmitter 3-wire or 4-wire system/inductive position transmitter\$1/2 \$1/2THThermoswitche (signalisation)\$1/2 \$1/2THThermoswitche (signalisation)\$1/2 \$1/2F1Potentiometer in tandem arrangement with R 2\$1/2 \$1/2F1Potentiometer in tandem arrangement with R 2\$1/2 \$1/2F1PT chermistor\$1/2 \$1/2F1PT chermistor (indication)	\$3	LSC (WSR)	Limit switch, closing, clockwise rotation			
S2/2DOEL 1in tandem arrangement with DSR/DOEL (TSC/TSO)S3/2WSR 1Limit switches, in tandem arrangement with WSR/WOEL (LSC/LSO)S3/3WSR 2Limit switches, in triple arrangement with WSR/WOEL (LSC/LSO)S3/4WSR 3Limit switches, in quadruple arrangement with WSR/WOEL (LSC/LSO)S3/4WSR 3Limit switches, in quadruple arrangement with WSR/WOEL (LSC/LSO)S5BLBlinker transmitterS6WDR 1Limit switches, DUO, for 2 intermediate positions, adjustableS6/2WDR 1Limit switches, DUO, for 2 intermediate positions softS7/2WDL 1Limit switches, DUO, for 2 intermediate positions in tandem arrangement with WDR/WDL (LSA/LSB)B1/B2EWG/RWG WGL 3S-wire or 4-wire system/electronic position transmitter 3-wire or 4-wire system/electronic position transmitter 3-wire or 4-wire system/electronic position transmitter 3-wire or 4-wire system/inductive position transmitter 2-wire system/inductive position transmitterF1/2	S4	LSO (WOEL)	Limit switch, opening, counterclockwise rotation			
S4/2WOEL 1in tandem arrangement with WSRWOEL (LSC/LSO)S3/3WSR 2Limit switches, in triple arrangement with WSR/WOEL (LSC/LSO)S3/4WSR 3Limit switches, in quadruple arrangement with WSR/WOEL (LSC/LSO)S5BLBlinker transmitterS6WDR 1Limit switches, DUO, for 2 intermediate positions, adjustableS6/2WDR 1Limit switches, DUO, for 2 intermediate positionsS7/2WDR 1Limit switches, DUO, for 2 intermediate position transmitterS7/2EWG/RWG2-wire system/inductive position transmitterF1/4THThermoswitches (signalisation)R1HHeater in switch compartment<						
S4/3WOEL 2in triple arrangement with WSR/WOEL (LSC/LSO)S3/4WSR 3 WOEL 3Limit switches, in quadruple arrangement with WSR/WOEL (LSC/LSO)S5BLBlinker transmitterS6WDRLimit switches, DUO, for 2 intermediate positions, adjustableS6/2WDR 1 WDL 1Limit switches, DUO, for 2 intermediate positions in tandem arrangement with WDR/WDL (LSA/LSB)B1/82EWG/RWG WGG3-wire or 4-wire system/electronic position transmitter 3-wire or 4-wire system/electronic position transmitter 2-wire system/inductive position transmitter 2-wire system/inductive position transmitterB3/B4EWG/RWG LGA2-wire system/electronic position transmitter 2-wire system/inductive position transmitter 2-wire system/inductive position transmitter 2-wire system/inductive position transmitter 2-wire system/inductive position transmitterB1/E2THThermoswitches (signalisation)R1HHeater in switch compartmentR2/2f2PotentiometerR2/3f3Potentiometer in tandem arrangement with R 2R3PTC 1PTC thermistorR3/2PTC 2PTC thermistor						
S4/4WOEL 3in quadruple arrangement with WSR/WOEL (LSC/LSO)S5BLBlinker transmitterS6WDR WDLLimit switches, DUO, for 2 intermediate positions, adjustableS6/2WDR 1 WDL 1Limit switches, DUO, for 2 intermediate positions in tandem arrangement with WDR/WDL (LSA/LSB)B1/B2EWG/RWG WG3-wire or 4-wire system/electronic position transmitter 3-wire or 4-wire system/electronic position transmitter 2-wire system/inductive position transmitter 2-wire system/electronic position transmitter 2-wire system/inductive position transmitterB3/B4EWG/RWG WG2-wire system/electronic position transmitter 2-wire system/inductive position transmitter 2-wire system/inductive position transmitter 2-wire system/inductive position transmitterF1THThermoswitchF1/2THThermoswitch (signalisation)R1H deater in switch compartmentR2/2f2Potentiometer in tandem arrangement with R 2R2/3f3Potentiometer in triple arrangement with R 2R3/4PTC 1PTC thermistorR3/2PTC 2PTC thermistor (indication)						
S6WDR WDLLimit switches, DUO, for 2 intermediate positions, adjustableS6/2WDR 1 WDL 1Limit switches, DUO, for 2 intermediate positions in tandem arrangement with WDR/WDL (LSA/LSB)B1/B2EWG/RWG IWG3-wire or 4-wire system/electronic position transmitter 3-wire or 4-wire system/electronic position transmitter 2-wire system/inductive position transmitter 2-wire system/inductive position transmitterB3/B4EWG/RWG IWG2-wire system/electronic position transmitter 2-wire system/inductive position transmitter 2-wire system/inductive position transmitterF1THThermoswitchF1/2THThermoswitches (signalisation)R1HHeater in switch compartmentR2/2f2Potentiometer in tandem arrangement with R 2R2/3f3Potentiometer in triple arrangement with R 2R3PTC 1PTC thermistorR3/2PTC 2PTC thermistor (indication)						
S7WDLadjustableS6/2WDR 1Limit switches, DUO, for 2 intermediate positions in tandem arrangement with WDR/WDL (LSA/LSB)B1/B2EWG/RWG3-wire or 4-wire system/electronic position transmitter 3-wire or 4-wire system/inductive position transmitter 2-wire system/inductive position transmitterB3/B4EWG/RWG2-wire system/electronic position transmitter 2-wire system/inductive position transmitter 2-wire system/inductive position transmitterF1THThermoswitchF1/2THThermoswitchs (signalisation)R1HHeater in switch compartmentR2/2f2Potentiometer in tandem arrangement with R 2R2/3f3Potentiometer in triple arrangement with R 2R3/4PTC 1PTC thermistor (indication)	S5	BL	Blinker transmitter			
S7/2WDL 1in tandem arrangement with WDR/WDL (LSA/LSB)B1/B2EWG/RWG IWG3-wire or 4-wire system/electronic position transmitter 3-wire or 4-wire system/inductive position transmitterB3/B4EWG/RWG IWG2-wire system/electronic position transmitter 2-wire system/inductive position transmitterF1THThermoswitchF1/2THThermoswitches (signalisation)R1HHeater in switch compartmentR2/2f1Potentiometer in tandem arrangement with R 2R2/3f3Potentiometer in triple arrangement with R 2R3PTC 1PTC thermistor (indication)						
IWG3-wire or 4-wire system/inductive position transmitterB3/B4EWG/RWG IWG2-wire system/electronic position transmitter 2-wire system/inductive position transmitter 2-wire system/inductive position transmitterF1THThermoswitchF1/2THThermoswitches (signalisation)R1HHeater in switch compartmentR2/2f1PotentiometerR2/2f2Potentiometer in tandem arrangement with R 2R2/3f3Potentiometer in triple arrangement with R 2R3/2PTC 1PTC thermistor (indication)						
IWG2-wire system/inductive position transmitterF1THThermoswitchF1/2THThermoswitches (signalisation)R1HHeater in switch compartmentR2f1PotentiometerR2/2f2Potentiometer in tandem arrangement with R 2R2/3f3Potentiometer in triple arrangement with R 2R3PTC 1PTC thermistor (indication)	B1/B2					
F1/2THThermoswitches (signalisation)R1HHeater in switch compartmentR2f1PotentiometerR2/2f2Potentiometer in tandem arrangement with R 2R2/3f3Potentiometer in triple arrangement with R 2R3PTC 1PTC thermistorR3/2PTC 2PTC thermistor (indication)	B3/B4					
R1HHeater in switch compartmentR2f1PotentiometerR2/2f2Potentiometer in tandem arrangement with R 2R2/3f3Potentiometer in triple arrangement with R 2R3PTC 1PTC thermistorR3/2PTC 2PTC thermistor (indication)	F1	ТН	Thermoswitch			
R2f1PotentiometerR2/2f2Potentiometer in tandem arrangement with R 2R2/3f3Potentiometer in triple arrangement with R 2R3PTC 1PTC thermistorR3/2PTC 2PTC thermistor (indication)	F1/2	ТН	Thermoswitches (signalisation)			
R2/2f2Potentiometer in tandem arrangement with R 2R2/3f3Potentiometer in triple arrangement with R 2R3PTC 1PTC thermistorR3/2PTC 2PTC thermistor (indication)	R1	Н	Heater in switch compartment			
R2/3f3Potentiometer in triple arrangement with R 2R3PTC 1PTC thermistorR3/2PTC 2PTC thermistor (indication)	R2	f1	Potentiometer			
R3PTC 1PTC thermistorR3/2PTC 2PTC thermistor (indication)	R2/2	f2	Potentiometer in tandem arrangement with R 2			
R3/2 PTC 2 PTC thermistor (indication)	R2/3	f3	Potentiometer in triple arrangement with R 2			
	R3	PTC 1	PTC thermistor			
R4 H Motor bester	R3/2	PTC 2	PTC thermistor (indication)			
	R4	Н	Motor heater			

Legend for AUMA MATIC

5	
A1.0	Interface board
K5 - 8	Output contact; running indication via output contacts (opening and closing) in combination with blinker (S5) and signal board for running indication (A91)
A1.1	Special interface board
A1.6	Timer board
R10	Direction OPEN, pause time
R11	Direction OPEN, running time
R12	Direction CLOSE, pause time
R13	Direction CLOSE, running time
A1.8	Profibus board, Modbus board
A2	Logic board
К9	Output contact/collect
A4	Overvoltage protection thyristors
A5	Thyristor board
A7	Positioner board
A8	Power supply board
F3, F4	Secondary fuses
A9	REMOTE change-over MANUAL - AUTOMATIC
A9.1	External release of local operation

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AM 01.1/AM 02.1

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Legend for AUMA MATIC

A11		PTC tripping board
A13		Fieldbus connection board
A13.1		Profibus DP and PTC tripping device
A13.2		Profibus DP and PTC tripping device and reset contact
A17		Galvanic isolator
A20/A21		Signal and control board
S11/	/S11/2	Selector switch LOCAL - OFF - REMOTE
S11/	/3	Selector switch LOCAL - OFF - REMOTE 3rd level with spring return for test/reset/PTC tripping device
S12.1		Push button OPEN
S12.2		Push button STOP
S12		Push button CLOSE
S12.5		Push button EMERGENCY - STOP
H1		Indication light CLOSE
H2		Indication light OPEN
H3		Indication light FAULT
КЗ,		Control relay for reversing contactors:
F1, I	F2	FF fuse for semiconductors
.22		Galvanic isolator and REMOTE change-over MANUAL - AUTOMATIC
24		Board for storing the collective fault signal 3 s
25		Signal and control board with EMERGENCY - STOP
.32		Overvoltage board for Profibus/Modbus
.33		External change-over LOCAL - REMOTE, without selector switch
35		Heater monitoring
66		REMOTE change-over for MANUAL - FIELDBUS
.67		Profibus with electronic blinker transmitter
.88	K10 K11	Heater system board
491	K10, K11	Signal board for running indication Signal board for running indication (opening and closing) in combination with blinker transmitter (S5)
5		Adjustment board for position transmitter
В		Permanent split capacitor (1 to 3 units)
1', F2'		Primary fuses for power supply
7		Thermal overload relay
1, K2		Reversing contactors
1		Disconnect switch
2		Motor protection switch
5		Heater in AUMA MATIC
1 - U4		Semiconductors (thyristors)
'14		LED, (phase sequence), phase failure, motor protection tripped
15		LED, torque switch operated in mid-travel
21		Stepping mode active in direction CLOSE
22		Stepping mode active in direction OPEN
35		LED, command CLOSE available from control room
36		LED, command OPEN available from control room
37		LED, STOP command available from control room
/38		LED, command EMERGENCY available from control room
(K		Customer connection
(A		Actuator connection
M		Connection for AUMA MATIC (wall bracket)

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Legend for AUMA MATIC

Supplementary information	
Information A	Running indication is possible for installed blinker transmitter (S5) (opening and closing)
	Running direction CLOSE: Sockets X_{k} 6 - X_{k} 7
	Running direction OPEN: Sockets X_{κ} 6 - X_{κ} 8
	Contacts remain closed in end position. For switching off/on the running indication (blinker transmitter), refer to operation instructions.
Information B	The valve manufacturer specifies the type of seating in the end positions. Setting is performed using program- ming switches S1-2 and S3-2 (refer to operation instructions). Tripping of a torque switch in mid-travel leads to switching off and generates a fault signal. For torque seating, the limit switches are used for signalling. They have to be set as to ensure that the respective switch trips shortly before reaching the end position. If the torque switch trips before the limit switch, the actuator is switched off and a fault signal generated.
Information D	 The following fault signals are recorded and can be sent as potential-free collective fault signal to the control room. Mains failure Phase failure Motor protection tripped Torque switch tripped in mid-travel (on/off switch refer to operation instructions).
Information E	Input signals according to DIN 19240. Nominal operating current of inputs $X_k 2$; $X_k 3$ and $X_k 4$ amounts to 10 – 15 mA. Should the internal 24 VDC
	power supply be used for remote control, switching is only possible via potential-free contacts.
Information F	In case of wrong phase sequence, the running direction is adjusted by automatic phase inversion. During phase failure, the multi-turn actuator is at standstill. The failure is indicated at LED V14 of the interface board.
Information G	Potential-free contacts can be used for signals. The internal control voltage (X_k 11/+24 V or X_k 5/–24V) must not be used for external lights, relays etc.

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