

Rotary actuator for rotary valves and butterfly valves

- Torque motor 40 Nm
- Nominal voltage AC/DC 24 V
- Control Open/close
- Running time motor 35 s



Petrical data   Petrical data   Petrical data   Nominal voltage   Nominal voltage   S0/60 Hz   Nominal voltage frequency   S0/60 Hz   Nominal voltage frequency   S0/60 Hz   Nominal voltage frage   AC 19.228.8 V / DC 21.628.8 V   Power consumption in operation   8 W   Power consumption in rest position   2.5 W   Power consumption for wire sizing   11 VA   Connection supply / control   Cable 1 m, 3 x 0.75 mm²   Parallel operation   Yes (note the performance data)   Parallel operation   Yes (note the performance data)   Parallel operation   With push-button, can be locked   Running time motor   40 Nm   Manual override   With push-button, can be locked   Running time motor   60 dBt/3   Position indication   Mechanically (integrated)   Position indication   Mechanically (integrated)   Power source UL   Class 2 Supply   Class 2 Supply   Degree of protection IEC/EN   IP54   Degree of protection IEC/EN   IP54   Degree of protection NEMA/UL   NEMA 2   Enclosure   UL Enclosure Type 2   EMC   CE according to 2014/30/EU   Certification IEC/EN   IEC/EN 60730-1 and IEC/EN 60730-2-14   CULus according to UL60730-1-14, UL60730-2-14 and CAN/CSA E60730-1   The UL marking on the actuator depends on the production site, the device is UL-compliant in any case   Mode of operation   Rated impulse voltage supply / control   0.8 kV   Pollution degree   3   Ambient temperature   3050°C [-22122°F]   Storage temperature   3050°C [-22122°F]   Storage temperature   3-050°C [-22122°F]   Storage temperature   3-050°C [-22126°F]   Servicing   maintenance-free   3   4080°C [-40176°F]   Servicing   maintenance-free   3   4080°C [-40176°F]   Servicing   Max. 95% RH, non-condensing   3   4080°C [-40176°F]   Servicing   Max. 95% RH, non-condensing   3   4080°C [-40176°F]   Servicing   Max. 95% RH, non-condensing   3   4080°C [-40176°F]   3				
Nominal voltage frequency Nominal voltage range AC 19.228.8 V / DC 21.628.8 V Power consumption in peration 8 W Power consumption in rest position 2.5 W Power consumption for wire sizing 11 VA Connection supply / control Cable 1 m, 3 x 0.75 mm² Parallel operation Yes (note the performance data)  Functional data Torque motor Manual override Running time motor Sound power level, motor Sound power level, motor Position indication Mechanically (integrated) Protection class IEC/EN III, Safety Extra-Low Voltage (SELV) Power source UL Degree of protection IEC/EN Degree of protection NEMA/UL Enclosure UL Enclosure EMC Cet according to 2014/30/EU Certification IEC/EN IEC/EN 60730-1 and IEC/EN 60730-2-14 and CAN/CSA E60730-1 The UL marking on the actuator depends on the production site, the device is UL-compliant in any case Mode of operation Type 1 Rated impulse voltage supply / control O.8 kV Pollution degree Ambient temperature -3050°C [-22122°F] Storage temperature -4080°C [-24176°F] Servicing maintenance-free	Technical data			
Nominal voltage frequency Nominal voltage range AC 19.228.8 V / DC 21.628.8 V Power consumption in peration 8 W Power consumption in rest position 2.5 W Power consumption for wire sizing 11 VA Connection supply / control Cable 1 m, 3 x 0.75 mm² Parallel operation Yes (note the performance data)  Functional data Torque motor Manual override Running time motor Sound power level, motor Sound power level, motor Position indication Mechanically (integrated) Protection class IEC/EN III, Safety Extra-Low Voltage (SELV) Power source UL Degree of protection IEC/EN Degree of protection NEMA/UL Enclosure UL Enclosure EMC Cet according to 2014/30/EU Certification IEC/EN IEC/EN 60730-1 and IEC/EN 60730-2-14 and CAN/CSA E60730-1 The UL marking on the actuator depends on the production site, the device is UL-compliant in any case Mode of operation Type 1 Rated impulse voltage supply / control O.8 kV Pollution degree Ambient temperature -3050°C [-22122°F] Storage temperature -4080°C [-24176°F] Servicing maintenance-free	Electrical data	Nominal voltage	AC/DC 24 V	
Nominal voltage range AC 19.228.8 V / DC 21.628.8 V Power consumption in operation 8 W Power consumption in rest position 2.5 W Power consumption for wire sizing 11 VA Connection supply / control Cable 1 m, 3 x 0.75 mm² Parallel operation Yes (note the performance data)  Functional data Torque motor 40 Nm Manual override with push-button, can be locked Running time motor 35 s / 90° Sound power level, motor 60 dB(A) Position indication Mechanically (integrated)  Safety data Protection class IEC/EN III, Safety Extra-Low Voltage (SELV) Power source UL Class 2 Supply Degree of protection IEC/EN IP54 Degree of protection IEC/EN IP54 Degree of protection NEMA/UL NEMA 2 Enclosure UL Leclosure Type 2 EMC CE according to 2014/30/EU Certification IEC/EN IEC/EN 60730-1 and IEC/EN 60730-2-14 und CAM/CSA E60730-1 The UL marking on the actuator depends on the production site, the device is UL-compliant in any case  Mode of operation Type 1 Rated impulse voltage supply / control 0.8 kV Pollution degree 3 Ambient thumidity Max. 95% RH, non-condensing Ambient temperature -3050°C [-22122°F] Storage temperature -4080°C [-40176°F] Servicing maintenance-free		-	50/60 Hz	
Power consumption in operation 2.5 W Power consumption in rest position 2.5 W Power consumption for wire sizing 11 VA Connection supply / control Cable 1 m, 3 x 0.75 mm² Parallel operation Yes (note the performance data)  Functional data  Funct			AC 19.228.8 V / DC 21.628.8 V	
Power consumption in rest position Power consumption for wire sizing Connection supply / control Cable 1 m, 3 x 0.75 mm² Parallel operation Parallel operation Torque motor Manual override Running time motor Sound power level, motor Position indication  Safety data Protection class IEC/EN Degree of protection NEMA/UL Enclosure EMC Certification IEC/EN UL Approval Degree of protection IEC/EN UL Approval UL Approval Degree of protection Semantial and CAN/CSA E60730-1 and IEC/EN 60730-2-14 and CAN/CSA E60730-1 The UL marking on the actuator depends on the production site, the device is UL-compliant in any case Mode of operation Rated impulse voltage supply / control O. 8 kV Pollution degree Ambient tumidity Amx. 95% RH, non-condensing Ambient temperature 3-050°C [-2212°F] Storage temperature 4-080°C [-40176°F] Servicing maintenance-free			8 W	
Connection supply / control Parallel operation  Functional data  Torque motor Manual override Running time motor Sound power level, motor Position indication  Fower of protection IEC/EN Degree of protection IEC/EN Enclosure Enclosure EMC Certification IEC/EN UL Approval  Mode of operation  Ambient humidity Ambient temperature Servicing  Torque motor  40 Nm With push-button, can be locked with		Power consumption in rest position	2.5 W	
Functional data  Torque motor Manual override Running time motor Sound power level, motor Power source UL Degree of protection IEC/EN Enclosure EMC Certification IEC/EN UL Approval UL Approval  Mode of operation Mode of operation Mode of operation Rated impulse voltage supply / control Rated impulse voltage supply / control Pollution degree Ambient temperature Servicing Manual override With push-button, can be locked with push button, can be		Power consumption for wire sizing	11 VA	
Functional data Torque motor A0 Nm Manual override with push-button, can be locked Running time motor 35 s / 90° Sound power level, motor 60 dB(A) Position indication Mechanically (integrated)  Safety data Protection class IEC/EN III, Safety Extra-Low Voltage (SELV) Power source UL Class 2 Supply Degree of protection IEC/EN IP54 Degree of protection NEMA/UL NEMA 2 Enclosure UL Enclosure Type 2 EMC CE according to 2014/30/EU Certification IEC/EN IEC/EN 60730-1 and IEC/EN 60730-2-14 UL Approval CULus according to UL60730-1A, UL60730-2-14 and CAN/CSA E60730-1 The UL marking on the actuator depends on the production site, the device is UL-compliant in any case Mode of operation Type 1 Rated impulse voltage supply / control 0.8 kV Pollution degree 3 Ambient humidity Max. 95% RH, non-condensing Ambient temperature -3050°C [-22122°F] Storage temperature -4080°C [-40176°F] Servicing maintenance-free		Connection supply / control	Cable 1 m, 3 x 0.75 mm <sup>2</sup>	
Manual override with push-button, can be locked Running time motor 35 s / 90° Sound power level, motor 60 dB(A) Position indication Mechanically (integrated)  Safety data  Protection class IEC/EN III, Safety Extra-Low Voltage (SELV) Power source UL Class 2 Supply Degree of protection IEC/EN IP54 Degree of protection NEMA/UL NEMA 2 Enclosure UL Enclosure Type 2 EMC CE according to 2014/30/EU Certification IEC/EN IEC/EN 60730-1 and IEC/EN 60730-2-14 UL Approval cULus according to ULGO730-1A, ULGO730-2-14 and CAN/CSA E60730-1 The UL marking on the actuator depends on the production site, the device is UL-compliant in any case Mode of operation Type 1 Rated impulse voltage supply / control 0.8 kV Pollution degree 3 Ambient humidity Max. 95% RH, non-condensing Ambient temperature -3050°C [-22122°F] Storage temperature -4080°C [-40176°F] Servicing maintenance-free		Parallel operation	Yes (note the performance data)	
Running time motor  Sound power level, motor  Fosition indication  Protection class IEC/EN  Power source UL  Degree of protection NEMA/UL  Enclosure  EMC  Certification IEC/EN  UL Approval  Mode of operation  Rated impulse voltage supply / control  Pollution degree  Ambient humidity  Ambient temperature  Safety data  Protection level, motor  60 dB(A)  Mechanically (integrated)  III, Safety Extra-Low Voltage (SELV)  Polluta 2 Supply  Degree of protection IEC/EN  IP54  Degree of protection NEMA/UL  NEMA 2  Enclosure Type 2  EMC  CE according to 2014/30/EU  Certification IEC/EN  IEC/EN 60730-1 and IEC/EN 60730-2-14  and CAN/CSA E60730-1  The UL marking on the actuator depends on the production site, the device is UL-compliant in any case  Mode of operation  Type 1  Rated impulse voltage supply / control  0.8 kV  Pollution degree  3  Ambient humidity  Max. 95% RH, non-condensing  Ambient remperature  -3050°C [-22122°F]  Storage temperature  -4080°C [-40176°F]  Servicing	Functional data	Torque motor	40 Nm	
Sound power level, motor Position indication  Mechanically (integrated)  Protection class IEC/EN  Power source UL Degree of protection IEC/EN  Enclosure EMC Certification IEC/EN  UL Approval  UL Approval  Mode of operation Rated impulse voltage supply / control Pollution degree Ambient humidity Ambient temperature Servicing  Foster Servicing  Mechanically (integrated)  III, Safety Extra-Low Voltage (SELV)  Pollut on Lass 2 Supply  UL Enclosure Type 2  EMC CE according to 2014/30/EU  CE a		Manual override	with push-button, can be locked	
Position indication Mechanically (integrated)  Protection class IEC/EN III, Safety Extra-Low Voltage (SELV)  Power source UL Class 2 Supply  Degree of protection IEC/EN IP54  Degree of protection NEMA/UL NEMA 2  Enclosure UL Enclosure Type 2  EMC CE according to 2014/30/EU  Certification IEC/EN IEC/EN 60730-1 and IEC/EN 60730-2-14  UL Approval CULus according to UL60730-1A, UL60730-2-14  and CAN/CSA E60730-1  The UL marking on the actuator depends on the production site, the device is UL-compliant in any case  Mode of operation Type 1  Rated impulse voltage supply / control 0.8 kV  Pollution degree 3  Ambient humidity Max. 95% RH, non-condensing  Ambient temperature -3050°C [-22122°F]  Storage temperature -4080°C [-40176°F]  Servicing maintenance-free		Running time motor	35 s / 90°	
Protection class IEC/EN Power source UL Degree of protection IEC/EN Degree of protection NEMA/UL Enclosure EMC Certification IEC/EN UL Approval  Mode of operation Rated impulse voltage supply / control Pollution degree Ambient humidity Ambient temperature Servicing MII, Safety Extra-Low Voltage (SELV)  IEI, Safety Extra-Low Voltage (SELV)  IEI, Safety Extra-Low Voltage (SELV)  IP54 Degree of protection IEC/EN IP54 Degree of protection NEMA/UL NEMA 2  Enclosure UL Enclosure Type 2  EMC CE according to 2014/30/EU  CE according to 2014/30/EU  CULus according to UL60730-2-14  and CAN/CSA E60730-1 The UL marking on the actuator depends on the production site, the device is UL-compliant in any case  Mode of operation Type 1  Rated impulse voltage supply / control 0.8 kV  Pollution degree 3 Ambient humidity Max. 95% RH, non-condensing Ambient temperature -3050°C [-22122°F] Storage temperature -4080°C [-40176°F]  Servicing maintenance-free		Sound power level, motor	60 dB(A)	
Power source UL  Degree of protection IEC/EN  Degree of protection NEMA/UL  Enclosure  Enclosure  EMC  Certification IEC/EN  UL Approval  UL Approval  CULus according to 2014/30/EU  CULus according to UL60730-1A, UL60730-2-14  and CAN/CSA E60730-1  The UL marking on the actuator depends on the production site, the device is UL-compliant in any case  Mode of operation  Rated impulse voltage supply / control  Pollution degree  Ambient humidity  Ambient temperature  Storage temperature  Servicing  Ambient description  IP54  I		Position indication	Mechanically (integrated)	
Degree of protection IEC/EN Degree of protection NEMA/UL Enclosure UL Enclosure Type 2 EMC CE according to 2014/30/EU Certification IEC/EN IEC/EN 60730-1 and IEC/EN 60730-2-14  UL Approval CULus according to UL60730-1A, UL60730-2-14 and CAN/CSA E60730-1 The UL marking on the actuator depends on the production site, the device is UL-compliant in any case  Mode of operation Type 1 Rated impulse voltage supply / control Pollution degree 3 Ambient humidity Amx. 95% RH, non-condensing Ambient temperature -3050°C [-22122°F] Storage temperature -4080°C [-40176°F] Servicing maintenance-free	Safety data	Protection class IEC/EN	III, Safety Extra-Low Voltage (SELV)	
Degree of protection NEMA/UL Enclosure UL Enclosure Type 2 EMC CE according to 2014/30/EU Certification IEC/EN IEC/EN 60730-1 and IEC/EN 60730-2-14 UL Approval CULus according to UL60730-1A, UL60730-2-14 and CAN/CSA E60730-1 The UL marking on the actuator depends on the production site, the device is UL-compliant in any case  Mode of operation Type 1 Rated impulse voltage supply / control 0.8 kV Pollution degree 3 Ambient humidity Max. 95% RH, non-condensing Ambient temperature -3050°C [-22122°F] Storage temperature -4080°C [-40176°F] Servicing maintenance-free		Power source UL	Class 2 Supply	
Enclosure  EMC  CE according to 2014/30/EU  Certification IEC/EN  IEC/EN 60730-1 and IEC/EN 60730-2-14  UL Approval  CULus according to UL60730-1A, UL60730-2-14  and CAN/CSA E60730-1  The UL marking on the actuator depends on the production site, the device is UL-compliant in any case  Mode of operation  Type 1  Rated impulse voltage supply / control  Pollution degree  3  Ambient humidity  Max. 95% RH, non-condensing  Ambient temperature  -3050°C [-22122°F]  Storage temperature  -4080°C [-40176°F]  Servicing  maintenance-free		Degree of protection IEC/EN	IP54	
EMC Certification IEC/EN IEC/EN 60730-1 and IEC/EN 60730-2-14  UL Approval CULus according to UL60730-14, UL60730-2-14 and CAN/CSA E60730-1 The UL marking on the actuator depends on the production site, the device is UL-compliant in any case  Mode of operation Type 1  Rated impulse voltage supply / control 0.8 kV  Pollution degree 3 Ambient humidity Max. 95% RH, non-condensing Ambient temperature -3050°C [-22122°F] Storage temperature -4080°C [-40176°F] Servicing maintenance-free		Degree of protection NEMA/UL	NEMA 2	
Certification IEC/EN  IEC/EN 60730-1 and IEC/EN 60730-2-14  UL Approval  cULus according to UL60730-1A, UL60730-2-14 and CAN/CSA E60730-1 The UL marking on the actuator depends on the production site, the device is UL-compliant in any case  Mode of operation  Type 1  Rated impulse voltage supply / control  Pollution degree  3  Ambient humidity  Max. 95% RH, non-condensing Ambient temperature  -3050°C [-22122°F]  Storage temperature  -4080°C [-40176°F]  Servicing  maintenance-free		Enclosure	UL Enclosure Type 2	
CULus according to UL60730-1A, UL60730-2-14 and CAN/CSA E60730-1 The UL marking on the actuator depends on the production site, the device is UL-compliant in any case  Mode of operation Type 1 Rated impulse voltage supply / control Pollution degree 3 Ambient humidity Max. 95% RH, non-condensing Ambient temperature -3050°C [-22122°F] Storage temperature -4080°C [-40176°F] Servicing maintenance-free		EMC	CE according to 2014/30/EU	
and CAN/CSA E60730-1 The UL marking on the actuator depends on the production site, the device is UL-compliant in any case  Mode of operation Type 1  Rated impulse voltage supply / control 0.8 kV  Pollution degree 3  Ambient humidity Max. 95% RH, non-condensing  Ambient temperature -3050°C [-22122°F]  Storage temperature -4080°C [-40176°F]  Servicing maintenance-free		Certification IEC/EN	IEC/EN 60730-1 and IEC/EN 60730-2-14	
Rated impulse voltage supply / control  O.8 kV  Pollution degree  3  Ambient humidity  Max. 95% RH, non-condensing  Ambient temperature  -3050°C [-22122°F]  Storage temperature  -4080°C [-40176°F]  Servicing  maintenance-free		UL Approval	and CAN/CSA E60730-1 The UL marking on the actuator depends on the production site, the device is UL-compliant	
Pollution degree 3  Ambient humidity Max. 95% RH, non-condensing  Ambient temperature -3050°C [-22122°F]  Storage temperature -4080°C [-40176°F]  Servicing maintenance-free		Mode of operation	Type 1	
Ambient humidity  Ambient temperature  -3050°C [-22122°F]  Storage temperature  -4080°C [-40176°F]  Servicing  maintenance-free		Rated impulse voltage supply / control	0.8 kV	
Ambient temperature -3050°C [-22122°F]  Storage temperature -4080°C [-40176°F]  Servicing maintenance-free		Pollution degree	3	
Storage temperature -4080°C [-40176°F] Servicing maintenance-free		Ambient humidity	Max. 95% RH, non-condensing	
Servicing maintenance-free		Ambient temperature	-3050°C [-22122°F]	
		Storage temperature	-4080°C [-40176°F]	
Mechanical data Connection flange F05		Servicing	maintenance-free	
	Mechanical data	Connection flange	F05	

2.3 kg

Weight Weight



## Safety notes



- This device has been designed for use in stationary heating, ventilation and air-conditioning systems and must not be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- Outdoor application: only possible in case that no (sea) water, snow, ice, insolation or
  aggressive gases interfere directly with the device and that it is ensured that the ambient
  conditions remain within the thresholds according to the data sheet at any time.
- Only authorised specialists may carry out installation. All applicable legal or institutional installation regulations must be complied during installation.
- The switch for changing the direction of rotation may only be operated by authorised specialists. The direction of rotation must not in particular be reversed in a frost protection circuit.
- The device may only be opened at the manufacturer's site. It does not contain any parts that can be replaced or repaired by the user.
- · Cables must not be removed from the device.
- The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.

#### **Product features**

Simple direct mounting Simple direct mounting on the rotary valve or butterfly valve with mounting flange. The

mounting orientation in relation to the fitting can be selected in 90° steps.

Manual override Manual override with push-button possible (the gear train is disengaged for as long as the

button is pressed or remains locked).

Adjustable angle of rotation Adjustable angle of rotation with mechanical end stops.

**High functional reliability** The actuator is overload protected, requires no limit switches and automatically stops when the

end stop is reached.

#### Accessories

Electrical	accessories
Electrical	accessories

Description	Туре
Auxiliary switch 1 x SPDT add-on	S1A
Auxiliary switch 2 x SPDT add-on	S2A
Feedback potentiometer 140 $\Omega$ add-on	P140A
Feedback potentiometer 200 $\Omega$ add-on	P200A
Feedback potentiometer 500 $\Omega$ add-on	P500A
Feedback potentiometer 1 kΩ add-on	P1000A
Feedback potentiometer 2.8 kΩ add-on	P2800A
Feedback potentiometer $5 \text{ k}\Omega$ add-on	P5000A
Feedback potentiometer 10 k $\Omega$ add-on	P10000A

#### **Electrical installation**



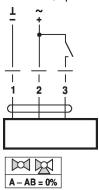
Supply from isolating transformer.

Parallel connection of other actuators possible. Observe the performance data. Direction of rotation switch is covered. Factory setting: Direction of rotation Y2.



## Wiring diagrams

AC/DC 24 V, open/close



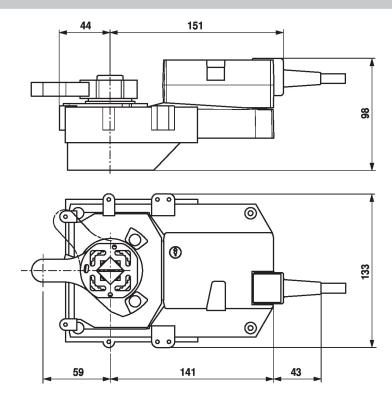
## Cable colours:

1 = black

2 = red

3 = white

# **Dimensions**



# **Further documentation**

- The complete product range for water applications
- Data sheets for rotary valves and butterfly valves
- Installation instructions for actuators and/or rotary valves and butterfly valves
- General notes for project planning