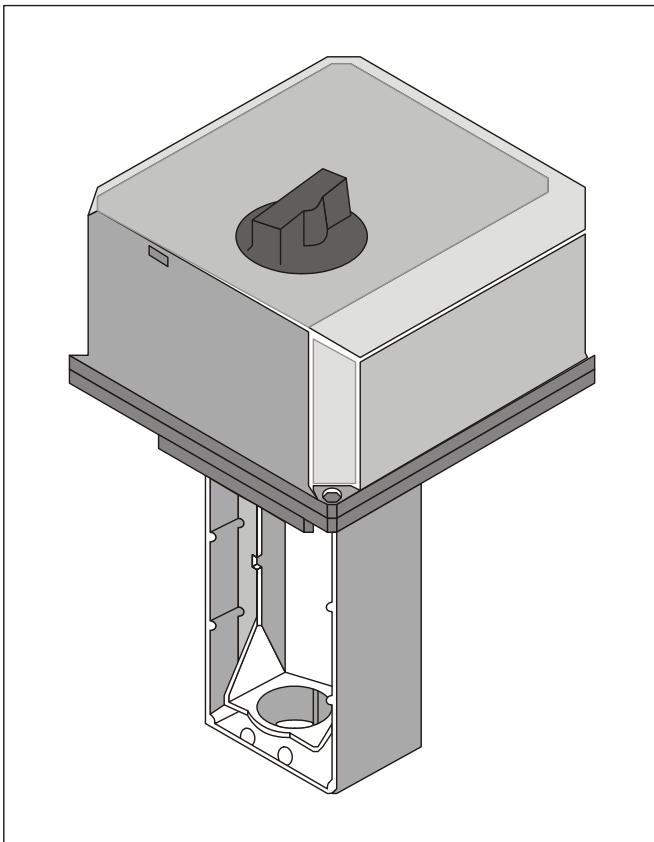


CLLA20-24NSR18/-230NSR18, CLLA38-24NSR18/-230NSR18

PRODUCT DATA



FEATURES

- Quick and easy installation.
- No separate linkage required.
- No adjustments required.
- Force-limiting end switches.
- Models for low and line voltage.
- Manual operation knob.
- Synchronous motor
- Corrosion-resistant design.
- Maintenance-free.

SPECIFICATIONS

Temperature Limits

Ambient operating limits	-10...+50 °C at 5...95% r.h.
Ambient storage limits	-40...+70 °C at 5...95% r.h.
Medium valve temp.	Max. 150 °C (220° C with High-Temperature Kit)

Safety

Protection class	III (24V-models); I (230V-models) as per EN60730-1
Protection standard	IP54 as per EN60529
Flame retardant housing	V0 as per UL94 (with metal cable gland)

Wiring

Wiring terminals	1.5 mm ²
Cable entry	M20x1.5 and extra knock-out

Weight

2.0 kg

Material

Cover	ABS
Yoke and base	aluminum die-cast

Noise level

≤45dB(A)

GENERAL

These actuators enable floating control, and are suitable for use in conjunction with ON/OFF or floating single-pole, double-throw (SPDT) control outputs. They can operate CentraLine's standard valves in heating, ventilation, and air conditioning (HVAC) applications.

Table 1. Specifications

model number	CLLA20-24NSR18	CLLA38-24NSR18	CLLA20-230NSR18	CLLA38-230NSR18
supply voltage	24 Vac ± 15%; 50/60 Hz		230 Vac +10/-15%; 50/60 Hz	
power consumption	13 VA (50 Hz) / 15 VA (60 Hz)		11 VA (50 Hz) / 13 VA (60 Hz)	
signal input 1	Supply voltage between terminals 1 and 24 V~; actuator stem extended: 2-way valve "closed," 3-way valve port A-AB "open"		Supply voltage between terminals N and Ph 1; actuator stem extended: 2-way valve "closed," 3-way valve port A-AB "open"	
signal input 2	Supply voltage between terminals 2 and 24 V~; actuator stem retracted: 2-way valve "open," 3-way valve port A-AB "closed"		Supply voltage between terminals N and Ph 1; actuator stem retracted: 2-way valve "open," 3-way valve port A-AB "closed"	
stroke	20 mm	38 mm	20 mm	38 mm
run-time at 50 Hz	1.9 min	3.5 min	1.9 min	3.5 min
close-off force	1800 N			

OPERATION

General

The drive of a synchronous motor is converted into linear motion of the actuator stem via a worm gear transmission. The actuator stem is connected with the valve stem by a button-keyed retainer connection.

Via installed microswitches, the internal force sensor switches off the actuator precisely when the specified stem force is reached.

Manual Operation

The actuators are equipped with a manual operation knob used in case of power failure. Manual operation is permitted only after the power supply has been switched off or disconnected. To operate, push the manual operation knob down and turn clockwise to move the stem upward and counterclockwise to move the stem downward. If the actuator returns to automatic control, the manual operation knob unlocks automatically.

NOTE: Manual operation allows a very high closing force capable of jamming the actuator spindle and exceeding the rating of the force switches, so that the motor cannot move. Therefore, after a manual close-off operation, it is necessary to release the spindle one turn by turning the manual operator knob, thus ensuring that the manual operator will automatically disengage on power resumption.

Force Limit Feedback

- When the actuator stem is extended to its end position, terminal 1 and 4 are connected.
- When the actuator stem is retracted to its end position, terminals 2 and 5 are connected.

Accessories

Auxiliary Switches

The actuators can be equipped on-site with an auxiliary switch unit with two switches. Their switching points are adjustable over the full length of the actuator stroke. The switches can be used to switch pumps or provide remote indication of any stroke position. A cable gland M20 is delivered with the unit.

Permitted load for CLLA20-24NSR18 and CLL38-24NSR18: 24 Vac / 5 (3) A

Permitted load for CLLA20-230NSR18 and CLL38-230NSR18: 230 Vac / 5 (3) A

Part number: 43191680-002

Auxiliary Potentiometers

The CLLA20-24NSR18 and CLL38-24NSR18 can be equipped on-site with an auxiliary potentiometer. This can be used as feedback potentiometer and/or to provide remote indication of the valve position

Part number: 43191679-001 (20 mm-stroke, full range: 220 Ω; operating range: 135 Ω)

Part number: 43191679-002 (38 mm-stroke, full range: 220 Ω; operating range: 135 Ω)

Part number: 43191679-007 (20 mm-stroke, 10 kΩ)

High-Temperature Kit

(for applications with a medium temperature of 150...220 °C)

order number High-Temperature Kit	valve	DN
43196000-001	CLVT2W...P16, CLVT3W...P16, CLVF2W...P16, CLVF3W...P16, CLVF3W...P6	15...50 15...32
43196000-002	CLVF2W...P16, CLVF3W...P16, CLVF3W...P6	40...80
43196000-038	CLVF2W...P16, CLVF3W...P16	100...150

CLOSE-OFF PRESSURE RATINGS

Table 2. Close-off pressure ratings

stem force	1800 N											
stroke	20 mm								38 mm			
valve size (mm)	15	20	25	32	40	50	65	80	80	100	125	150
VALVES	close-off pressure ratings (in kPa)											
CLVF3W140/220/310P6	--	--	--	--	--	--	--	--	--	150	120	80
CLVF2W0.6-6.3P16	1600	1600	1600	1600	1300	750	470	230	--	--	--	--
CLVF3W2.5-100P16	*	*	*	1000	1000	1000	650	400	--	--	--	--
CLVF3W2.5-100P6	*	*	*	*	600	600	600	400	--	--	--	--
CLVF3W160/250/360P16	--	--	--	--	--	--	--	--	--	150	120	80

*Use 600-N actuator

For details on the valves, see following documents:

- CLVF3W140/220/310 (PN6) EN0Z-0926GE51
- CLVF2W (PN16) EN0Z-0925GE51
- CLVF3W2.5-100 (PN6/16) EN0Z-0927GE51
- CLVF3W160/250/360 (PN16) EN0Z-0924GE51

WIRING

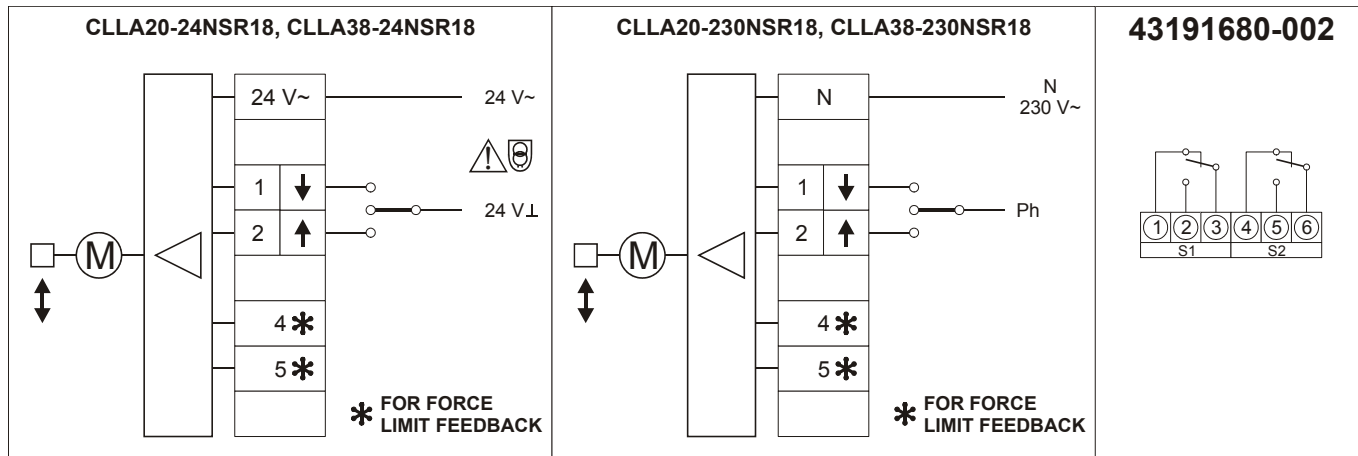


Fig. 1. Wiring

DIMENSIONS

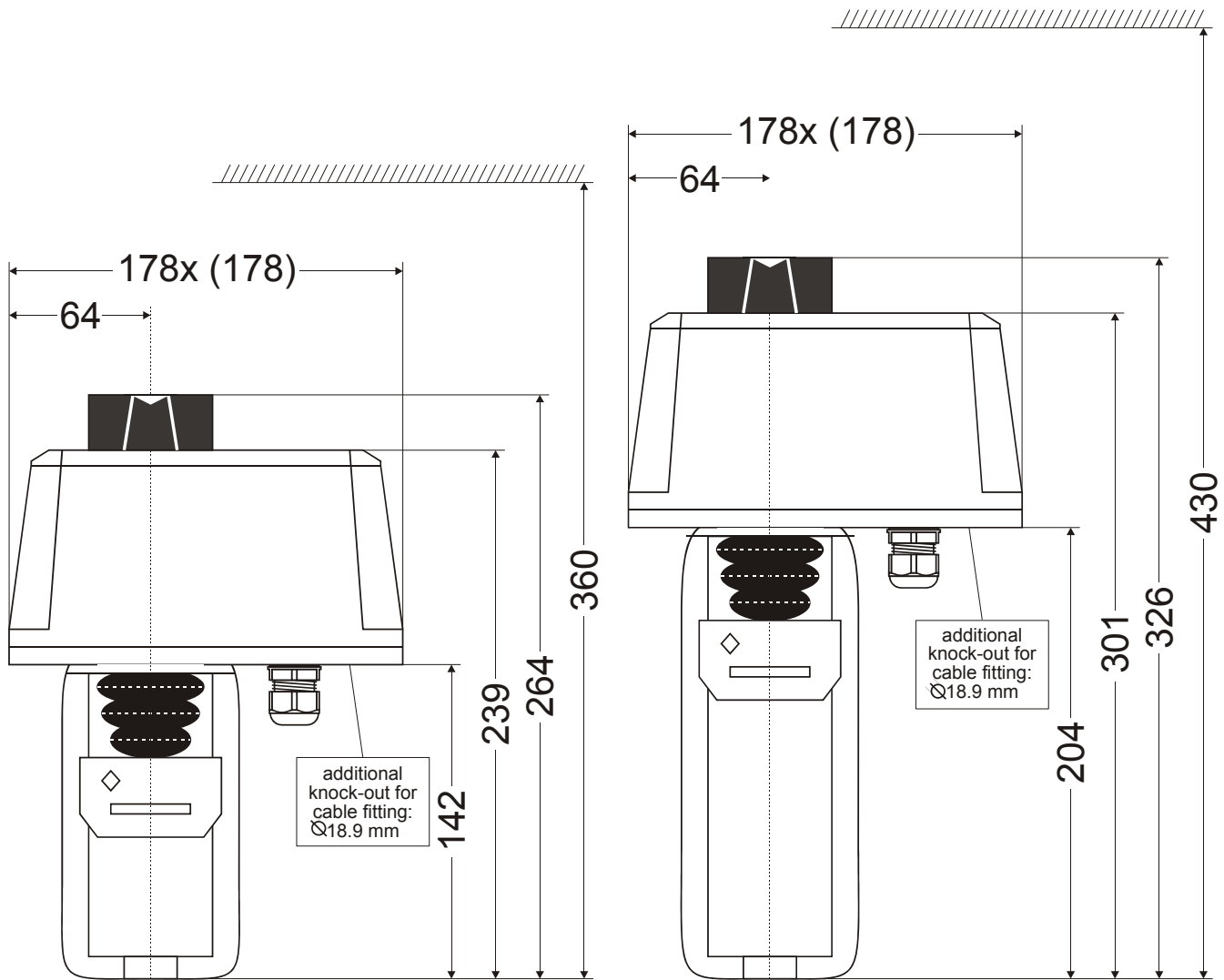


Fig. 2. CLLA20-24NSR18/-230NSR18 (left) and CLLA38-24NSR18/-230NSR18 (right), dimensions (in mm)

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