

Actuator Controls

General

Whether you plan to operate from a simple pushbutton or a programmable controller, Thomson controls can make your system easy to design, install and operate. Designed to drive actuators, the controls on the following pages are equipped either with easy to use terminal strips or plugs compatible with the actuators for ease of wiring. The controls can be operated manually via external push buttons/switches, hand held pendants or from electronic controls such as a PLC. We also have other actuator controls which may meet your particular needs. Contact customer service if you don't see the right control for your application.



Actuator Controls

Switches

DPDT Switch



- Robust switch
- Double pole, double throw (DPDT)
- 15 A rating at 270 Vac
- Center “off”
- Two momentary contacts
- Wiring diagram on label

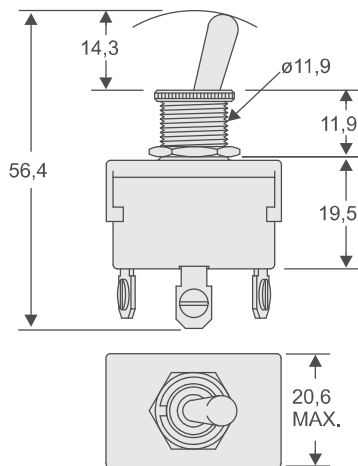
Specifications

Parameter		DPDT Switch
Maximum voltage	[Vac]	270
Maximum current	[A]	15
Part number		830-8004-016

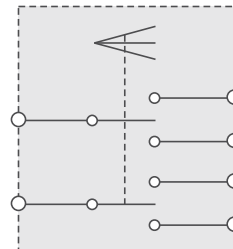
Actuator Compatibility

Electrak 1, Electrak 1SP, Electrak 050, Electrak PPA-DC, Electrak 10, Electrak LA14, Electrak 5, Electrak Throttle, Electrak LA24, LC, DMD, DMA, LM80-H, LM80-V, LM80-I, DGB

Dimensions



Wiring Diagram



! Note: sometimes the switch can manage higher current than the actuator and sometimes it is the other way around. Always make sure that both the switch and the actuator can manage the current that the application require.

Actuator Controls

Electronic Controls

Control AC-063



- Rugged and robust control designed to operate under the hardest conditions
- Auto shut off function if the current or duty cycle limits of the control is exceeded.
- Robust plastic enclosure
- Versions for DC or AC supply voltage
- Versions with or without limit switch inputs
- Versions with or without control pendant

Actuator Compatibility

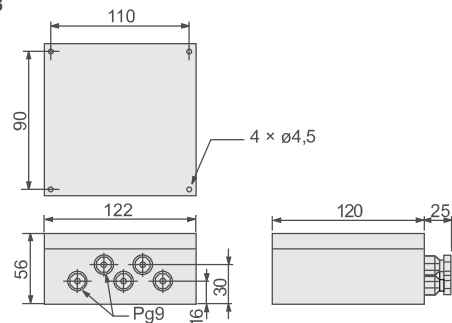
AC-063B	Electrak PPA-DC, Electrak 10, Electrak LA14, DMD
AC-063BC	Electrak PPA-DC, Electrak 10, Electrak LA14, DMD
AC-063C	Electrak PPA-DC, Electrak 10, Electrak LA14, DMD



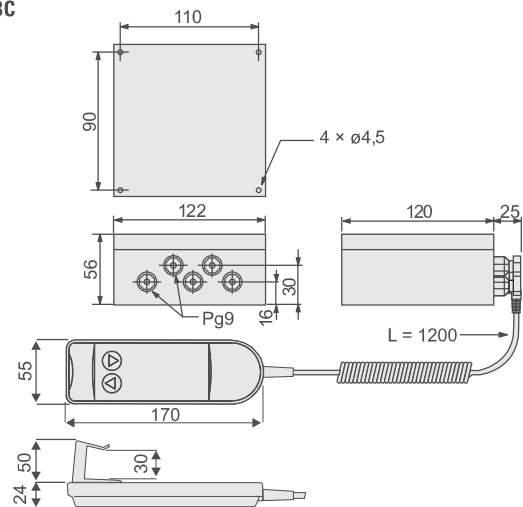
Note: sometimes the control can manage higher current and/or duty cycle than the actuator and sometimes it is the other way around. Always make sure that both the control and the actuator can manage the current and duty cycle that the application require.

Dimensions

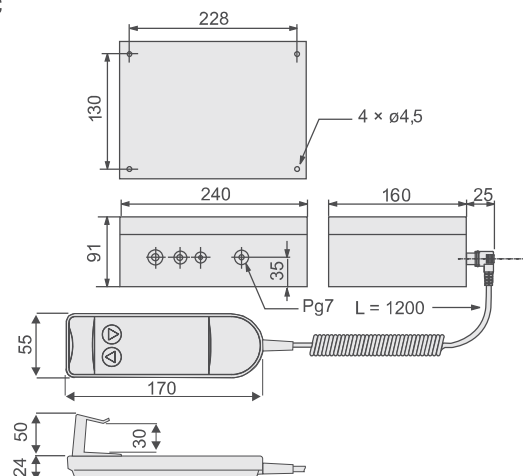
AC-063B



AC-063BC



AC-063C



Actuator Controls

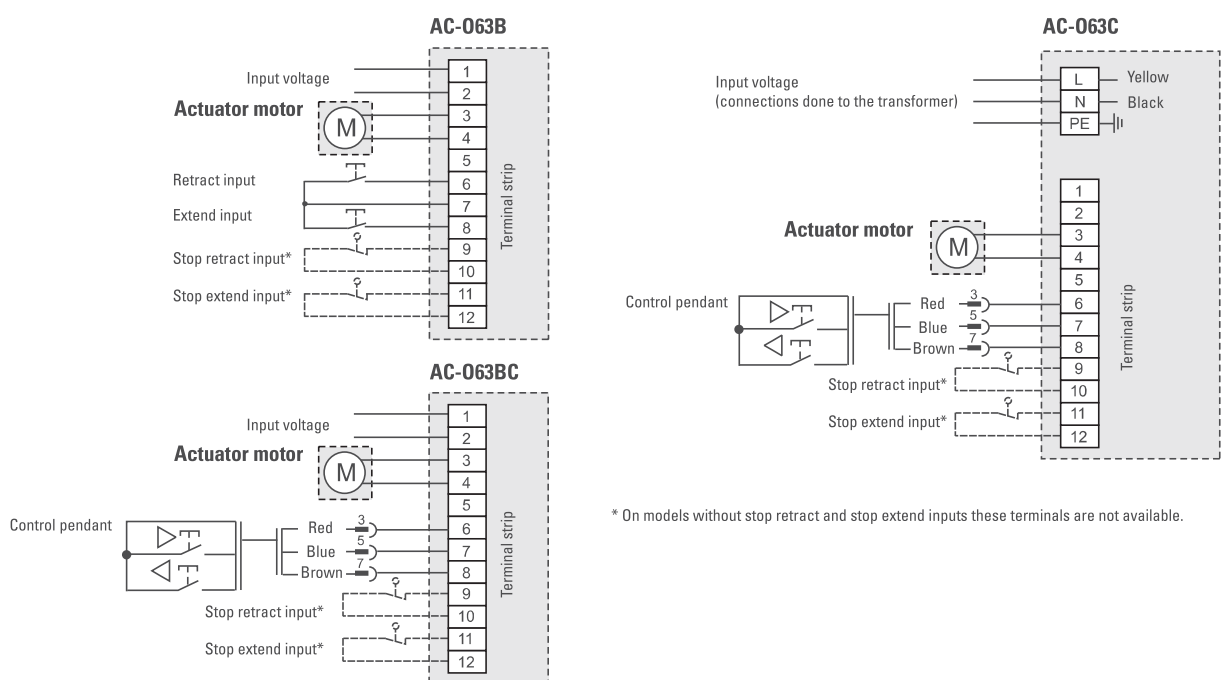
Electronic Controls

Control AC-063

Specifications

Parameter	AC-063B		AC-063BC		AC-063C	
Input voltage [V]						
Vdc	12 – 36	12 – 36	12 – 36	12 – 36	-	-
Vac @ 50 Hz	-	-	-	-	230	230
Output voltage [Vdc]	12 – 36	12 – 36	12 – 36	12 – 36	24	24
Output current, max. [A]						
@ 12 Vdc output	30	30	30	30	-	-
@ 24 Vdc output	17	17	17	17	17	17
@ 36 Vdc output	12	12	12	12	-	-
Max. duty cycle @ 25 °C [%]	10	10	10	10	10	10
Weight of control [kg]	0,4	0,4	0,4	0,4	3	3
Protection class	IP65	IP65	IP54	IP54	IP54	IP54
Limit switch inputs	no	yes	no	yes	no	yes
Control pendant included	no	no	yes	yes	yes	yes
Certificates	CE	CE	CE	CE	CE	CE
Part number	DC24-1B	DCA24-1B	DC24-1BC	DCA24-1BC	DC24-1C	DCA24-1C

Wiring Diagram



Actuator Controls

Electronic Controls

Control AC-247 ELS

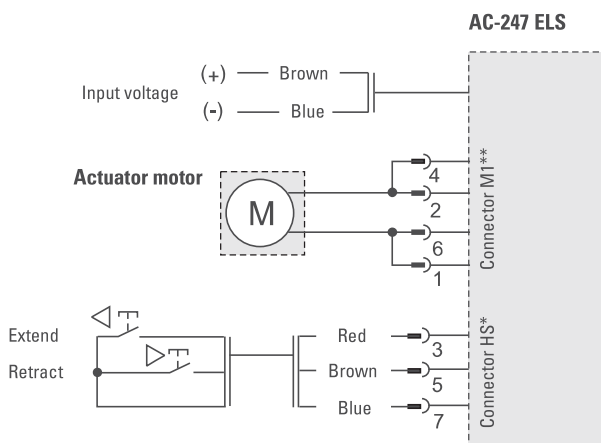


- Compact, robust and light weight
- Electronic limit switches (ELS) stop the actuator at end of stroke if the actuator runs into an obstacle
- Connector input for DCG14-1H control pendant

Actuator Compatibility

Electrak 1, Electrak 1SP, Electrak 050, LM80-H, LM80-V, LM80-I

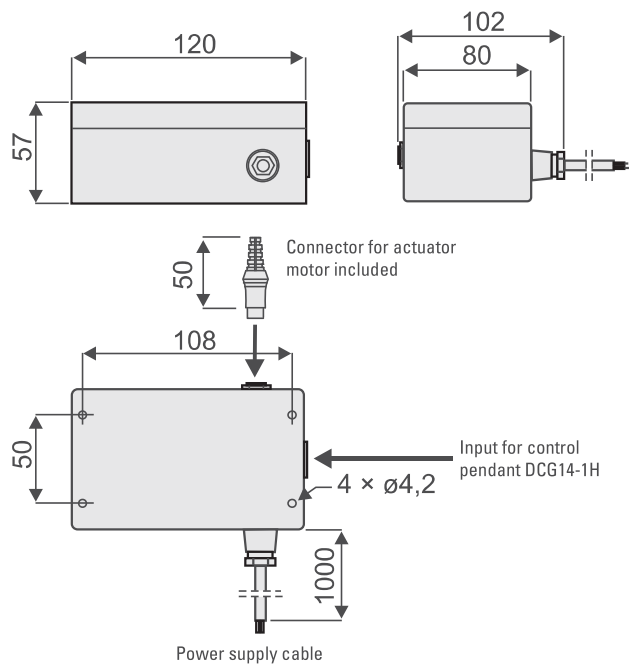
Wiring Diagram



* The diagram shows the control connected to control pendant DCG14-1H, but any type of normally open contacts can be used to control the direction of the actuator.

** Each motor lead must be connected to two pins in the connector in order to not exceed the current limit of the connector.

Dimensions



! Note: sometimes the control can manage higher current and/or duty cycle than the actuator and sometimes it is the other way around. Always make sure that both the control and the actuator can manage the current and duty cycle that the application require.

Actuator Controls

Electronic Controls

Control AC-247 ELS

Specifications

Parameter		AC-247 ELS	AC-247 ELS	AC-247 ELS
Input voltage	[Vdc]	12 or 24	12	24
Output voltage	[Vdc]	12 or 24	12	24
Output current, max. @ 12 Vdc output @ 24 Vdc output	[A]	10 5	12 -	- 8
Max. duty cycle @ 25 °C	[%]	10	10	10
Weight of control	[kg]	0,3	0,3	0,3
Protection class		IP54	IP54	IP54
Electronic limit switches		yes	yes	yes
Connector for control pendant		yes ¹	yes ¹	yes ¹
Control pendant included ¹		no	no	no
Certificates		CE	CE	CE
Part number		D604 110	D604 111	D604 112

¹Control pendant type DCG14-1H is recommended, see page 68.

Actuator Controls

Electronic Controls

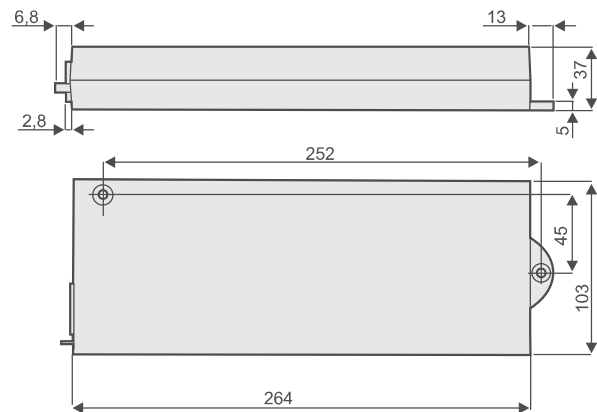
» Ordering Key - see page 83
» Glossary - see page 85

Control DCG



- Controls available for single actuator operation or synchronous operation of two actuators equipped with encoders.
- Small and light weight control operated via a control pendant which is ordered separately
- Built in Electronic Limit Switches (ELS) stop the actuator automatically at end of stroke or mid stroke stall
- The control pendant is ordered separately
- The “Control to Actuator” cable is ordered separately and comes in several version depending of the type of actuator being used

Dimensions



Wiring Diagram

No wiring is necessary to the control. All connections are done through plugs.

Actuator Compatibility

DCG-150	Electrak 1, Electrak 1SP, Electrak 050 ¹ , Max Jac, LC1600
DCG-160	LM80-V
DCG-170	LM80-H
DCG-180	LC2000, LC3000, LM80-I
DCG-190	LA10, LA14, PPA-DC, DMD
DCG-250	Synchronous operation of two LC1600 ²
DCG-260	Synchronous operation of two LM80-I ²
DCG-280	Synchronous operation of two LC2000, LC3000 ²

¹This control does not work with Electrak 050 that has the limit switch option (“FS” or “PF” option).

²The units must be equipped with encoders. LM80-I can not have spline safety function.



Note: sometimes the control can manage higher current and/or duty cycle than the actuator and sometimes it is the other way around. Always make sure that both the control and the actuator can manage the current and duty cycle that the application require.

Actuator Controls

Electronic Controls

DCG Controls Overview

Specifications									
Parameter	DCG-150	DCG-160	DCG-170	DCG-180	DCG-190	DCG-250 ⁷	DCG-260 ⁵	DCG-280 ⁸	
Input voltage ¹ [Vac]	1 × 230 ± 6%								
Input frequency [Hz]	50/60								
Output voltage [Vdc]	24								
Output current, max. ² up [A]	4	8	8	8	13	4	2 × 8	2 × 8	
down [A]	4	5,6	8	8	13	4	2 × 5,6	2 × 8	
Operating temperature limits [°C]	+0 – +30								
Max. duty cycle @ 25 °C ³ [%]	10								
Maximum on time [s]	60	120	120	60	60	60	60	60	
Weight of control [kg]	0.5								
Protection class	Class 1 (not for outdoor use)								
Electronic limit switches	yes	yes	yes	yes	yes	yes ⁶	yes ⁶	yes ⁶	
Included control pendant ⁴	no								
Certificates	CE								

¹ 115 Vac input voltage also available. Contact customer support.

² These controls are current limited. Review the current/load curves for the actuator you selected to make sure the control will provide enough current for the thrust you need. You may need to select one of the AC-063 or AC-247 ELS controls.

³ Control will shut off if duty cycle is exceeded and automatically reset when cooled off.

⁴ Control pendant type DCG14-1H is recommended, see page 68.

⁵ Control for synchronous operation of two LM80-I rodless actuators. Contact customer support for information on synchronous operation of other actuator models.

⁶ DCG-250, DCG-260, DCG-280 uses a pulse counting function instead of current sensing to determine if the actuator is moving at the correct speed. If the pulses arrives too slowly or not at all the control will stop the motion of both actuators.

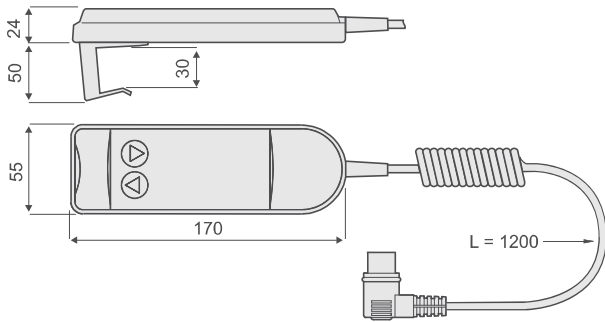
⁷ Control for synchronous operation of two LC1600 lifting columns.

⁸ Control for synchronous operation of two LC2000 or LC3000 lifting columns. Contact customer support for information on synchronous operation of other actuator models.

Actuator Controls

Control Accessories

DCG Control Pendant

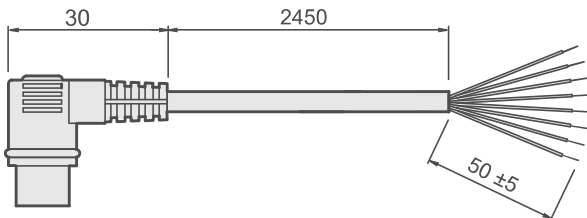


Specifications

Parameter		DCG14-1H
Weight	[kg]	0,4
Cable length	[mm]	1200
Certificates		CE
Part number		DCG14-1H

- Handy and light weight control pendant with spiral cord cable which connects to the DCG, AC-063 (possible on BC and C versions only) and AC-247 ELS control pendant input with a plug

Control to Control Cable for DCG, AC-063 and AC-247 ELS Controls



Specifications

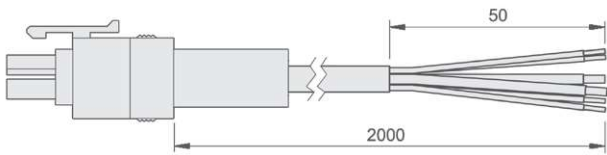
Parameter		
Lead cross section	[mm ²]	7 × 0,14
Cable length	[mm]	2450
Part number		D620 095

- This cable connects with its plug to the control pendant input on DCG, AC-063 (possible on BC and C versions only) and AC-247 ELS in order to connect the control to another device than the DCG control pendant

Actuator Controls

Control Accessories

Control to Actuator Cables with Single Connector for DCG Controls



- Connects the DCG control to actuators without connector

Specifications

Parameter		
Lead cross section [mm ²]	4 × 0,25 + 2 × 1,5	4 × 0,25 + 2 × 1,5
Cable length [mm]	2000	4300
Part number	D620 143	D620 145