



HANDHELD LINEAR ACTUATOR CONTROLLERS

HDL SERIES

We offer a broad range of high quality handheld linear actuator controllers in standard and customized configurations. Our customer-centric approach makes us the ideal supplier for your project, especially to instrument and apparatus builders. In addition, we offer immediate delivery, thanks to always having a high number of motors in stock.

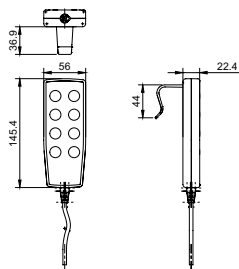
Customizations include:

- ✓ Customized harness
- ✓ Winding configuration
- ✓ Shaft configuration
- ✓ And more...

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DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

HDL - DDLA - NUMBER OF ACTUATORS

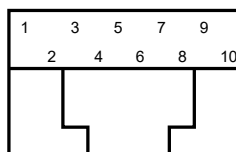
Example: HDL-DDLA-1

ACCESSORIES

C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

HANDHELD CONTROLLER DATA		C
Mode	Asynchronous	
Number of actuators	1	
Compatible actuator control box1=	DDLA-1	
Cable length	mm 880	
Operating temperature	°C 5 to 40	
IP rating	IP20	
Connector	10P10C (RJ50)	
Body materials	ABS	
Color	Pantone cool gray 11C and black	

CONNECTOR PIN LAYOUT



CONNECTOR PIN CONFIGURATION

PIN	FUNCTION
1	-
2	5 V
3	-
4	-
5	1 Up M1
6	-
7	-
8	1 Down M1
9	-
10	-

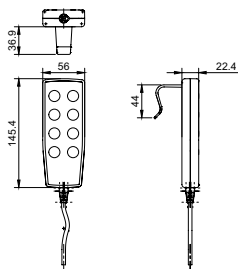
OPERATION GUIDANCE

1. Connect the actuator/s adapter cable between the control box and the actuator.
2. Press and continuously hold down the M button on the controller for actuator/s operation.
3. The actuator/s will stop at any position when the controller button is released.
4. The actuator/s will stop automatically by its internal limit switches at end position.
5. Simultaneous operation of several actuators is possible.

NOTES

1. Sold separately. See www.transmotec.com.

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

HDL - DDLA - NUMBER OF ACTUATORS

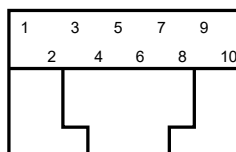
Example: HDL-DDLA-2

ACCESSORIES

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HANDHELD CONTROLLER DATA		C
Mode	Asynchronous	
Number of actuators	2	
Compatible actuator control box1=	DDLA-2	
Cable length	mm 880	
Operating temperature	°C 5 to 40	
IP rating	IP20	
Connector	10P10C (RJ50)	
Body materials	ABS	
Color	Pantone cool gray 11C and black	

CONNECTOR PIN LAYOUT



CONNECTOR PIN CONFIGURATION

PIN	FUNCTION
1	-
2	5 V
3	-
4	2 Up M2
5	1 Up M1
6	-
7	2 Down M2
8	1 Down M1
9	-
10	-

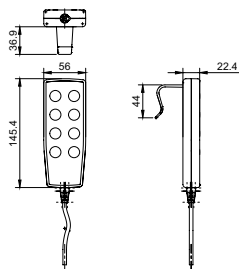
OPERATION GUIDANCE

1. Connect the actuator/s adapter cable between the control box and the actuator.
2. Press and continuously hold down the M button on the controller for actuator/s operation.
3. The actuator/s will stop at any position when the controller button is released.
4. The actuator/s will stop automatically by its internal limit switches at end position.
5. Simultaneous operation of several actuators is possible.

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DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

HDL - DDLA - NUMBER OF ACTUATORS

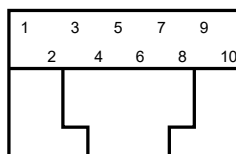
Example: HDL-DDLA-3

ACCESSORIES

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HANDHELD CONTROLLER DATA		C
Mode	Asynchronous	
Number of actuators	3	
Compatible actuator control box1=	DDLA-3	
Cable length	mm 880	
Operating temperature	°C 5 to 40	
IP rating	IP20	
Connector	10P10C (RJ50)	
Body materials	ABS	
Color	Pantone cool gray 11C and black	

CONNECTOR PIN LAYOUT



CONNECTOR PIN CONFIGURATION

PIN	FUNCTION
1	-
2	5 V
3	3 Up M3
4	2 Up M2
5	1 Up M1
6	3 Down M3
7	2 Down M2
8	1 Down M1
9	-
10	-

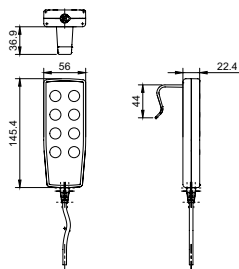
OPERATION GUIDANCE

1. Connect the actuator/s adapter cable between the control box and the actuator.
2. Press and continuously hold down the M button on the controller for actuator/s operation.
3. The actuator/s will stop at any position when the controller button is released.
4. The actuator/s will stop automatically by its internal limit switches at end position.
5. Simultaneous operation of several actuators is possible.

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DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

HDL - DDLA - NUMBER OF ACTUATORS

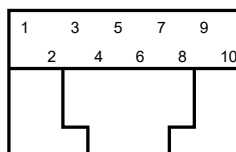
Example: HDL-DDLA-4

ACCESSORIES

C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

HANDHELD CONTROLLER DATA		C
Mode	Asynchronous	
Number of actuators	4	
Compatible actuator control box1=	DDLA-4	
Cable length	mm	880
Operating temperature	°C	5 to 40
IP rating		IP20
Connector		10P10C (RJ50)
Body materials		ABS
Color		Pantone cool gray 11C and black

CONNECTOR PIN LAYOUT



CONNECTOR PIN CONFIGURATION

PIN	FUNCTION
1	4 up M4
2	5 V
3	3 Up M3
4	2 Up M2
5	1 Up M1
6	3 Down M3
7	2 Down M2
8	1 Down M1
9	-
10	4 Down M4

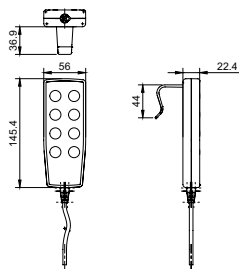
OPERATION GUIDANCE

1. Connect the actuator/s adapter cable between the control box and the actuator.
2. Press and continuously hold down the M button on the controller for actuator/s operation.
3. The actuator/s will stop at any position when the controller button is released.
4. The actuator/s will stop automatically by its internal limit switches at end position.
5. Simultaneous operation of several actuators is possible.

NOTES

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DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

HDL - DDLA-24 - NUMBER OF ACTUATORS

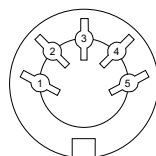
Example: HDL-DDLA-24-1

ACCESSORIES

● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

HANDHELD CONTROLLER DATA		C
Mode	Asynchronous	
Number of actuators	1	
Compatible actuator control box1=	DDLA-24-1	
Cable length	mm 880	
Operating temperature	°C 5 to 40	
IP rating	IP42	
Connector2=	5-pin DIN 41524	
Body materials	ABS	
Color	Pantone cool gray 11C and black	

CONNECTOR PIN LAYOUT



CONNECTOR PIN CONFIGURATION

PIN	FUNCTION
1	M2 Down
2	Vcc
3	M2 Up
4	M1 Down
5	M1 Up

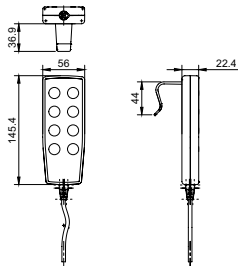
OPERATION GUIDANCE

1. Connect the actuator/s adapter cable between the control box and the actuator.
2. Press and continuously hold down the M button on the controller for actuator/s operation.
3. The actuator/s will stop at any position when the controller button is released.
4. The actuator/s will stop automatically by its internal limit switches at end position.
5. Simultaneous operation of several actuators is possible.

NOTES

1. Sold separately. See www.transmotec.com.
2. 45°, 180° Jack.

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

HDL - DDLA-24 - NUMBER OF ACTUATORS

Example: HDL-DDLA-24-2

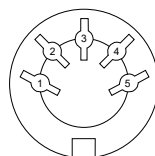
ACCESSORIES

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HANDHELD CONTROLLER DATA

		C
Mode	Asynchronous	
Number of actuators	2	
Compatible actuator control box1=	DDLA-24-2	
Cable length	mm 880	
Operating temperature	°C 5 to 40	
IP rating	IP42	
Connector2=	5-pin DIN 41524	
Body materials	ABS	
Color	Pantone cool gray 11C and black	

CONNECTOR PIN LAYOUT



CONNECTOR PIN CONFIGURATION

PIN	FUNCTION
1	M2 Down
2	Vcc
3	M2 Up
4	M1 Down
5	M1 Up

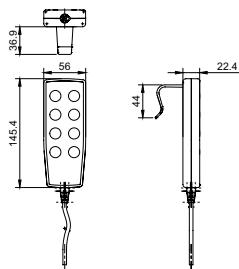
OPERATION GUIDANCE

1. Connect the actuator/s adapter cable between the control box and the actuator.
2. Press and continuously hold down the M button on the controller for actuator/s operation.
3. The actuator/s will stop at any position when the controller button is released.
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DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

HDL - DDLA-24 - NUMBER OF ACTUATORS

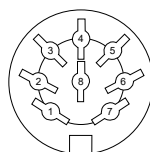
Example: HDL-DDLA-24-3

ACCESSORIES

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HANDHELD CONTROLLER DATA		C
Mode	Asynchronous	
Number of actuators	3	
Compatible actuator control box1=	DDLA-24-3	
Cable length	mm	880
Operating temperature	°C	5 to 40
IP rating	IP42	
Connector2=	8-pin DIN 45326	
Body materials	ABS	
Color	Pantone cool gray 11C and black	

CONNECTOR PIN LAYOUT



CONNECTOR PIN CONFIGURATION

PIN	FUNCTION
1	M3 Down
2	M2 Down
3	Vcc
4	M2 Up
5	M1 Down
6	M1 Up
7	M3 Up
8	-

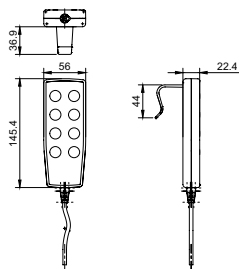
OPERATION GUIDANCE

1. Connect the actuator/s adapter cable between the control box and the actuator.
2. Press and continuously hold down the M button on the controller for actuator/s operation.
3. The actuator/s will stop at any position when the controller button is released.
4. The actuator/s will stop automatically by its internal limit switches at end position.
5. Simultaneous operation of several actuators is possible.

NOTES

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2. 45°, 270° Jack.

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

HDL - DDLA-24 - NUMBER OF ACTUATORS

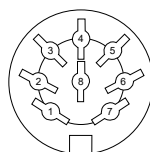
Example: HDL-DDLA-24-4

ACCESSORIES

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HANDHELD CONTROLLER DATA		C
Mode	Asynchronous	
Number of actuators	4	
Compatible actuator control box1=	DDLA-24-4	
Cable length	mm 880	
Operating temperature	°C 5 to 40	
IP rating	IP42	
Connector2=	8-pin DIN 45326	
Body materials	ABS	
Color	Pantone cool gray 11C and black	

CONNECTOR PIN LAYOUT



CONNECTOR PIN CONFIGURATION

PIN	FUNCTION
1	M3 Down
2	M2 Down
3	Vcc
4	M2 Up
5	M1 Down
6	M1 Up
7	M3 Up
8	-

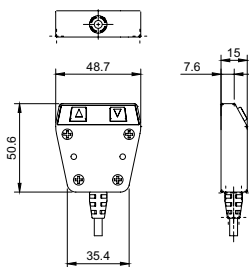
OPERATION GUIDANCE

1. Connect the actuator/s adapter cable between the control box and the actuator.
2. Press and continuously hold down the M button on the controller for actuator/s operation.
3. The actuator/s will stop at any position when the controller button is released.
4. The actuator/s will stop automatically by its internal limit switches at end position.
5. Simultaneous operation of several actuators is possible.

NOTES

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2. 45°, 270° Jack.

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

HDL - DDLS - NUMBER OF ACTUATORS

Example: HDL-DDLS-2

ACCESSORIES

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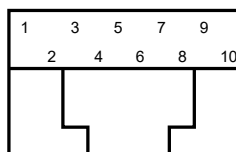
HANDHELD CONTROLLER DATA

HANDHELD CONTROLLER DATA		C
Mode	Synchronous	
Number of actuators	2	
Compatible actuator control box1=	DDLS-2	
Cable length	mm 880	
Operating temperature	°C 5 to 40	
IP rating	IP20	
Connector	10P10C (RJ50)	
Body materials	ABS	
Color	Pantone cool gray 11C and black	

NOTES

1. Sold separately. See www.transmotec.com.

CONNECTOR PIN LAYOUT



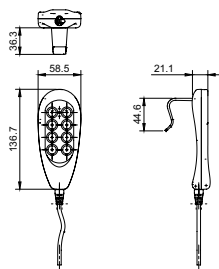
CONNECTOR PIN CONFIGURATION

PIN	FUNCTION
1	-
2	5 V
3	-
4	-
5	1 Up M1
6	-
7	-
8	1 Down M1
9	-
10	-

OPERATION GUIDANCE

1. Connect all actuators adapter cables between the control box and the actuator.
2. All actuators must be connected to the control box for functional operation.
3. Press and hold down both hand control buttons 3 seconds to start automatic calibration process.
4. Press and continuously hold down the M button on the hand control for actuators operation.
5. Actuators will have a few mm stopping distance.
6. The actuators will stop automatically by its internal limit switches at end position.

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

HDL - DDLS - NUMBER OF ACTUATORS

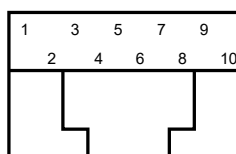
Example: HDL-DDLS-3

ACCESSORIES

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HANDHELD CONTROLLER DATA		C
Mode	Synchronous	
Number of actuators	3	
Compatible actuator control box1=	DDLS-3	
Cable length	mm 880	
Operating temperature	°C 5 to 40	
IP rating	IP20	
Connector	10P10C (RJ50)	
Body materials	ABS	
Color	Pantone cool gray 11C and black	

CONNECTOR PIN LAYOUT



OPERATION GUIDANCE

1. Connect all actuators adapter cables between the control box and the actuator.
2. All actuators must be connected to the control box for functional operation.
3. Press and hold down both hand control buttons 3 seconds to start automatic calibration process.
4. Press and continuously hold down the M button on the hand control for actuators operation.
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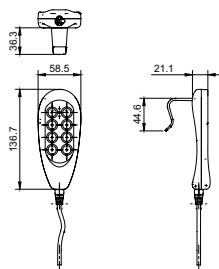
CONNECTOR PIN CONFIGURATION

PIN	FUNCTION
1	-
2	5 V
3	-
4	-
5	1 Up M1
6	-
7	-
8	1 Down M1
9	-
10	-

NOTES

1. Sold separately. See www.transmotec.com.

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

HDL - DDLS - NUMBER OF ACTUATORS

Example: HDL-DDLS-4

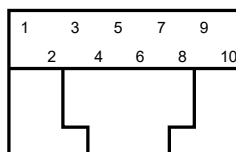
ACCESSORIES

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HANDHELD CONTROLLER DATA

HANDHELD CONTROLLER DATA		C
Mode	Synchronous	
Number of actuators	4	
Compatible actuator control box1=	DDLS-4	
Cable length	mm 880	
Operating temperature	°C 5 to 40	
IP rating	IP20	
Connector	10P10C (RJ50)	
Body materials	ABS	
Color	Pantone cool gray 11C and black	

CONNECTOR PIN LAYOUT



CONNECTOR PIN CONFIGURATION

PIN	FUNCTION
1	-
2	5 V
3	-
4	-
5	1 Up M1
6	-
7	-
8	1 Down M1
9	-
10	-

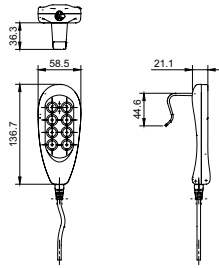
OPERATION GUIDANCE

1. Connect all actuators adapter cables between the control box and the actuator.
2. All actuators must be connected to the control box for functional operation.
3. Press and hold down both hand control buttons 3 seconds to start automatic calibration process.
4. Press and continuously hold down the M button on the hand control for actuators operation.
5. Actuators will have a few mm stopping distance.
6. The actuators will stop automatically by its internal limit switches at end position.

NOTES

1. Sold separately. See www.transmotec.com.

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

HDL - DDHS - NUMBER OF ACTUATORS

Example: HDL-DDHS-1

ACCESSORIES

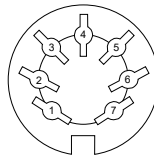
C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

HANDHELD CONTROLLER DATA		C
Mode	Synchronous	
Number of actuators	1	
Compatible actuator control box1=	DDHS-1	
Cable length	mm 880	
Operating temperature	°C 5 to 40	
IP rating	IP20	
Connector	7-pin DIN	
Body materials	ABS	
Color	Black	

NOTES

1. Sold separately. See www.transmotec.com.

CONNECTOR PIN LAYOUT



CONNECTOR PIN CONFIGURATION

PIN	FUNCTION
1	Memory position 2
2	M up
3	M down
4	Memory function
5	GND
6	Memory position 1
7	Memory position 3

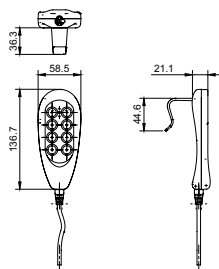
OPERATION GUIDANCE

Before installation, ensure that all actuators in the system are fully retracted.

For synchronization of multiple actuators, all actuators must be of the same model and dimensions to ensure desired operation.

Note that the exact wiring configuration of the actuators depends on several conditions, including the type of actuators connected.

DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

HDL - DDMS - NUMBER OF ACTUATORS

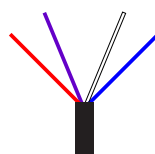
Example: HDL-DDMS-2

ACCESSORIES

C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

HANDHELD CONTROLLER DATA		C
Mode	Synchronous and asynchronous	
Number of actuators	2	
Compatible actuator control box1=	DDMS-2	
Cable length	mm 880	
Operating temperature	°C 5 to 40	
IP rating	IP20	
Connector	Flying wires	
Body materials	ABS	
Color	Black	

WIRE LAYOUT



WIRE CONFIGURATION

WIRE	PORT	FUNCTION
Red	19	5 V
Purple	20	Retraction
White	21	Extension
Blue	22	Learning

OPERATION GUIDANCE

Control the actuator to extend and retract by swapping the DC input polarity. To prevent voltage drop issues, use a power cord with a large cross-sectional area.

Keep the wire length from the power supply to the control board and from the control board to the actuator motor as short as possible, ideally under 1 meter.

It is strongly recommended to install a max. 50 A slow-blow fuse between DDMS-2 and the power supply.

If the actuators have no positioning sensor, they must have limit switches that can cut off the power and stop by themselves, otherwise there is a high risk of damage to DDMS-2.

The speed of actuators controlled by DDMS-2 will be lower than the typical values stated in the actuator's data sheet. The maximum speed loss is up to 25%.

NOTES

1. Sold separately. See www.transmotec.com.