

## End-position controllers CMFL

**FESTO**



# End-position controllers CMFL

Key features

**At a glance**

Properties	Range of applications
<p>The end-position controller CMFL is used for force-controlled positioning of the short-stroke cylinder ADNE-LAS. The mode of operation therefore corresponds to that of a pneumatic cylinder, reproduced using a linear motor.</p>	<p>The following applications can be realised with the four predefined movement patterns:</p> <ul style="list-style-type: none"> <li>• Ejecting "bad" parts from a continuous production process</li> <li>• Blocking movements</li> <li>• Switching deflectors</li> </ul>
<p>The drive technology used permits more dynamic movements compared with pneumatic cylinders; these movements additionally offer continuous monitoring including "motion complete".</p>	<p>The high dynamic response means that actuation is only possible via hardware inputs and outputs.</p>

**Everything from a single source**

Short-stroke cylinder ADNE-LAS  
 → Internet: adne







End-position controller CMFL  
 → 3

- Short-stroke cylinder ADNE-LAS
- End-position controller CMFL
- Motor cable NEBM
- Supply cable KPWR
- Control cable KES

The short-stroke cylinder ADNE-LAS and end-position controller CMFL form one unit. Only one cable is required between them.

**Movement patterns**

Four movement patterns can be selected via inputs.

- |                                   |   |
|-----------------------------------|---|
| 1. Advance                        |  |
| 2. Retract                        |  |
| 3. Advance and then retract again |  |
| 4. Retract and then advance again |  |

# End-position controllers CMFL

Technical data

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General technical data		
Display		LED
Control elements		None
Interface		I/O interface
Number of digital logic inputs		4
Number of digital logic outputs		2
Controller operating mode		PWM MOSFET power end stage
Digital outputs, switching logic		PNP
Digital inputs, switching logic		Choice of PNP, NPN
Protective function		Software end-position detection
		Voltage failure detection
Type of mounting		Via mounting bracket
Product weight	[g]	470

Electrical data		
Load supply		
Nominal voltage (either)	[V DC]	24 ±5%
	[V DC]	48 ±5%
Nominal current	[A]	3
Peak current	[A]	4.5 (at 24 V DC)
	[A]	8 (at 48 V DC)
Logic supply		
Nominal voltage	[V DC]	24 ±10%
Nominal current	[A]	0.1
Peak current	[A]	0.2
Max. current of digital logic outputs	[mA]	100

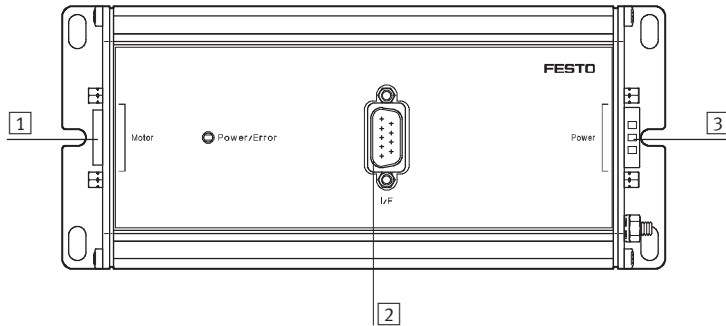
Operating and environmental conditions		
Logic input		Galvanically isolated
Digital logic outputs		Galvanically isolated
Logic input specification		Based on IEC 61131-2
Digital output design		To IEC 61131-2
Protection class		IP65
Vibration resistance		Based on DIN EN 60068-2-6
Shock resistance		Based on DIN EN 60068-2-27
CE mark (see declaration of conformity) <sup>1)</sup>		To EU EMC Directive
Ambient temperature	[°C]	0 ... +40
Storage temperature	[°C]	-20 ... +60
Relative air humidity	[%]	0 ... 90 (non-condensing)
Note on materials		Contains PWIS (paint-wetting impairment substances)
		RoHS-compliant
Certification		C-Tick

1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: [www.festo.com](http://www.festo.com) → Support → User documentation.  
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

# End-position controllers CMFL

Technical data

## Pin allocation



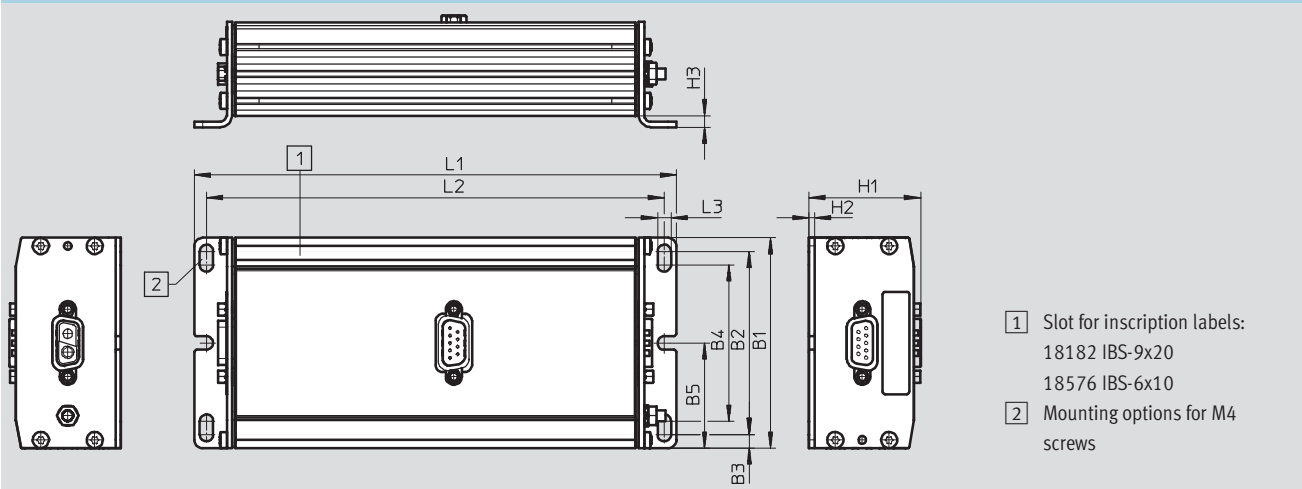
1 Motor interface, 9-pin Sub-D socket	
Pin	Function
1	Centre pick-up
2	Temperature sensor
3	Serial data
4	Motor -
5	Motor +
6	Clock
7	Supply voltage
8	Write protect
9	Reference potential 0 V
-	Cable screening

2 I/O interface, 9-pin Sub-D plug	
Pin	Function
1	Reference voltage
2	Enable
3	Control bit 2
4	Start
5	Control bit 1
6	Output supply voltage
7	Motion complete
8	Error
9	GND (connected internally with GND load)
-	Cable screening

3 Power supply, 2-pin Sub-D plug	
Pin	Function
A1	+48 VDC load
A2	GND load

## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)



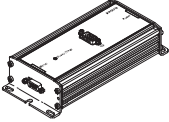
- 1 Slot for inscription labels:  
18182 IBS-9x20  
18576 IBS-6x10
- 2 Mounting options for M4 screws

Type	B1	B2	B3	B4	B5	H1	H2	H3	L1	L2	L3
CMFL-...	78	68	5	58	39	41.4	2	4.2	178.9	169.9	5

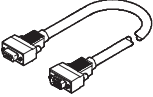
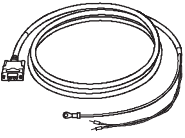

# End-position controllers CMFL

Technical data

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Ordering data			
Motor controller	Brief description	Part No.	Type
	With I/O interface	<b>567420</b>	<b>CMFL</b>

## Accessories

Ordering data – Cables				
	Brief description	Cable length [m]	Part No.	Type
	Motor cable for connecting the motor and controller	2.5	<b>565369</b>	<b>NEBM-S1G9-E-2.5-N-S1G9</b>
		5	<b>565370</b>	<b>NEBM-S1G9-E-5-N-S1G9</b>
		10	<b>565371</b>	<b>NEBM-S1G9-E-10-N-S1G9</b>
	Supply cable	2.5	<b>537931</b>	<b>KPWR-MC-1-SUB-9HC-2,5</b>
		5	<b>537932</b>	<b>KPWR-MC-1-SUB-9HC-5</b>
		10	<b>537933</b>	<b>KPWR-MC-1-SUB-9HC-10</b>
	Control cable for I/O interface, for connection to any PLC controller	2.5	<b>537923</b>	<b>KES-MC-1-SUB-9-2,5</b>
		5	<b>537924</b>	<b>KES-MC-1-SUB-9-5</b>
		10	<b>537925</b>	<b>KES-MC-1-SUB-9-10</b>