

CML1 / CDL1

CAPTRON

Original Operating Instructions



CML1 / CDL1

This manual has been written for technicians/installers and operators and should be kept for future reference. Read these operating instructions carefully and make sure that you have fully understood the contents before installing or working with the CML1 / CDL1.

Safety

General safety

All work on electrical systems or operating equipment may be carried out only by a specially qualified electrician according to the applicable electrotechnical regulations.

The safety of the system in which the indicator light is integrated is the responsibility of the operator.

Notes and symbols used

Warning notes in relation to personal injury / material damage are formulated according to the "SAFE" principle. This means they contain information on the type and source of the hazard, potential consequences as well as how to avoid and avert danger. The following hazard classifications apply in the safety notes:



DANGER

Danger designates a hazardous situation, which, if ignored, will lead to death or serious injury. The symbol next to the warning indicates the type and source of the danger.



WARNING

Warning designates a hazardous situation, which, if ignored, may lead to death or serious injury. The symbol next to the warning indicates the type and source of the danger.



CAUTION

Caution designates a hazardous situation, which, if ignored, may lead to injury. The symbol next to the warning indicates the type and source of the danger.

NOTICE

Notice designates a situation, which may cause material damages and impair the product's function if attention is not paid.

TIP

Tip provides additional useful information about the handling of the product.

Symbol	Meaning
▸	Avoiding and adverting danger in the warning note
▶	Instructions for action All instructions to be followed within a procedure are always listed in chronological order.
■	List



WARNING



Improper work on electrical systems!

Electric shock can result in death or life-threatening injuries.

- ▶ Before working on electrical systems, disconnect them from their voltage supply and secure them against being switched on again.
- ▶ Work on electrical installations should be carried out only by qualified personnel in compliance with local and national electrical regulations and specifications.

Personnel qualifications

A qualified electrician is a person with suitable technical training, expertise and experience as well as knowledge of relevant standards, who can evaluate the work assigned to them correspondingly and recognize potential risks.

Intended use

The indicator light is intended for use in accordance with the items listed here, the values from the “Technical specifications” chapter and the product description.

- Only connect the product to a limited energy source as per IEC 61010 or to an NEC class 2 power supply unit.
- Source current < 4 A at maximum operating voltage.

Reasonably foreseeable misuse

The indicator light is not suitable for:

- use as a safety component as per machinery directive 2006/42/EC.
- use in potentially explosive atmospheres.

General description

The supplied indicator light can have options that differ from those shown in this manual. This does not affect the function. The LEDs are actuated differently depending on the pin configuration.

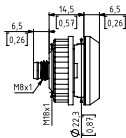
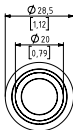
Technical specifications

Operating voltage	— 24 V (21.6 ...26.4 V)
Reverse polarity protection	Protection of all cables/lines (temporary)
Power consumption CDL1 CTL1	Max. 20 mA at 24 V Max. 30 mA at 24 V
Operating temperature	-20...+50°C
Degree of protection IP	Front IP69K
Relative air humidity	Max. 95%, non-condensing

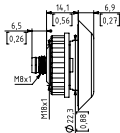
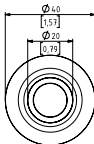
Dimensional drawing

Example representation plug, M8 4-pin

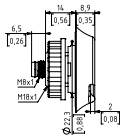
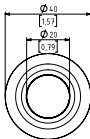
CML-1_9 /
CDL1-1_9



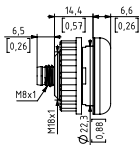
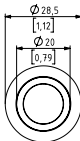
CML1-1_8 /
CDL1-1_8



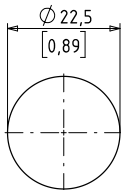
CML1-6_8 / CDL1-6_8



CML1-1_8_/CPM20
CDL1-1_8_/CPM20



Drilling pattern
Drilling pattern



Connection

CML1-_7_...

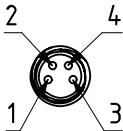
200 mm single strands with wire end ferrules

Wire end ferrules with plastic collars DIN 46228

Wire cross-section strands 0.15 mm²

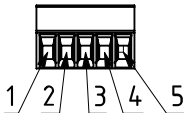
CML1-_5_...

Plug M8, 4-pin



CML1-_K_...

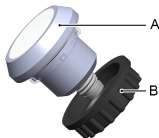
Terminal strip, 5-pin



Assembly

Requirements: Mounting surface is level and clean.

- ▶ Disconnect the system from its voltage supply and secure it against being switched on again.
- ▶ Set the desired position of the indicator light and drill the hole according to the drilling pattern.
- ▶ Unscrew the lock nuts (B) from the indicator light (A).
- ▶ Insert the indicator light into the prepared hole and screw the lock nuts (B) back on.
- ▶ Position the indicator light (A) and tighten the lock nuts with max. 1 Nm.

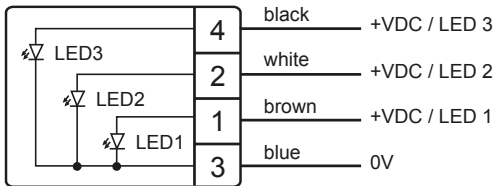


Connect CML1

Different colors are shown depending on CML1 actuation.

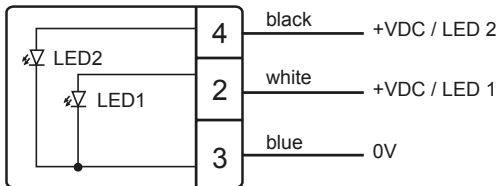
	Pin assignment			Indicator light color
4	2	1	3	
		24 V	0 V	Red
	24 V		0 V	Green
24 V			0 V	Blue
	24 V	24 V	0 V	Yellow*
24 V		24 V	0 V	Violet
24 V	24 V		0 V	Light blue
24 V	24 V	24 V	0 V	White*

* Colors not technically pure



Connect CDL1

Different colors are shown depending on CDL1 actuation.



Maintenance

Carry out the following maintenance operations at the specified intervals.

Operation	as needed	annually
Clean the switch surface	X	
Check cable for integrity		X

Operation	as needed	annually
Check screw connection for tightness		X

NOTICE

Solvents contained in cleaning agents can attack the plastic of the button!

- ▶ Clean the surface of the button with a neutral cleaning agent or a damp microfiber cloth.

Disassembly

- ▶ Disconnect the system from its voltage supply and secure it against being switched on again.
- ▶ Disconnect the electrical connection and remove the lock nuts.

Disposal

Different types of electrical and electronic components must be recycled according to their type. All applicable statutory, state and local laws and regulations must be complied with.

Manual updates

CAPTRON reserves the right to make changes to the contents of this manual as needed. The most current version can be found on our website. www.captron.com . Or scan the QR code.



Imprint

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CML1 - CDL1 1.1

Product description
