SIMCO ION™
An ITW Company

static control made **Easy!**

Product Specifications

Static bonding
Charging generators

CMME

The CMME is a small profile footprint charging generator specially designed for IML applications. The unit has fully integrated high voltage parts and only needs a 24V DC supply. The housing is compact, robust and only weighs 340 grams which makes it perfect for end of arm mounting in IML pick and place handling systems. It can easily withstand the high G-forces occurring during the IML process.

The CMME has a unique (patented) cyle OK feature

A signal will become active when the label(s) have accumulated enough electrostatic charge indicating that the charging is finished. This signal can be used by the machine interface to decide to stop charging.

A second stage in the cycle OK signal will indicate that the charge on the mandrell has dropped below a safe level to start moving the mandrell out of the mould.

This innovative feature completely eliminates the guess work and experimental setup for each individual IML application, and when changing product or label.

The best part is; It will save you money!

Using the parameters generated by the CMME you can drastically reduce the charging time and thus the total cycle time of the injection moulding process.

- Speed up initial set up
- Speed up changeover
- Speed up cycle time
- Increase reliability

The cycle OK signal even gives you more information about the process.
If during the charging process the charging level deviates more than 10% from the setpoint, the cycle OK signal will not be activated, telling you that charging was not successful.
This could mean one or more of the labels are not present, causing too much voltage leakage.

Indication LED's on both sides of the end of the CMME unit will display general information about the status of the unit.

Status	High voltage	Leds
Initialisation	Off	Blink green @ 10Hz
Standby	Off	Blink green @ 1Hz
Normal mode	On	Orange
Overload cycly OK	On	Blink red @ 5Hz
Supply voltage <18V	On	Blink red @ 5Hz
Overload HV	On	Red
Temperature >90°C	Off	Blink red/green @ 1Hz

The CMME is equipped with an easily detachable high voltage distribution block. The high voltage distribution block is available with 1-8 connection cables.

Detachable high voltage distribution block

CMME with IML Spider

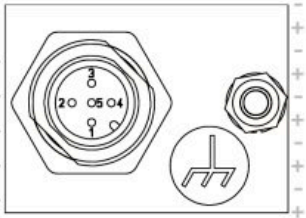
CMME with 4 quick connect ports

The CMME can be used directly from a machine interface capable of supplying a 4-20 mA signal for the setpoint and a 24V DC signal for remote on/off.

Technical specifications

Required power supply	
Supply voltage	21- 27 V DC
Electricity consumption	Max. 0,7 A
Setpoint	4- 20 mA, 220 Ω internal resistance
Connection	M12 connector, 5- pin
Output	
Output voltage	0- 18 kV
Output current	Max. 0,4 mA @50% duty cycle
Environment	
Operating environment	industrial, internal use
Ambient temperature	0- 55 °C
Protection class	IP54
Signalling	
Cycle ok	Supply voltage -1 V (max.50 mA)
Remote on/off	10- 30 V
Mechanical	
Dimensions (lxwxh)	200 x 45 x 36
Weight	340 g (excluding high-voltage cables)
Housing material	ABS
Vibration resistance	≤ 6 G, ≤ 7 m/s
Options	IQ version

Pin	Name	Std. cable colour
1	+24 V	Brown
2	Remote on/off	White
3	O V / GND	Blue
4	Cycle OK	Black
5	Usetpoint	Gray



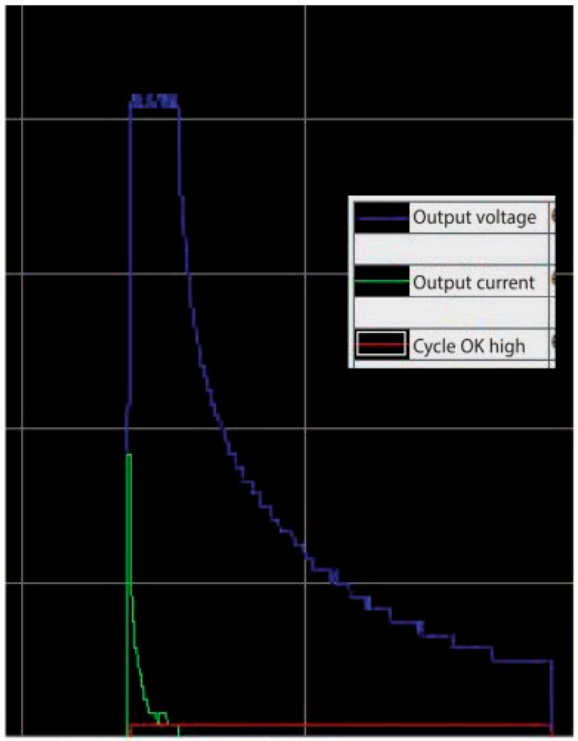
Features

- Supply voltage 24V DC
- Cycle OK signal (patented)
- Compact and robust, capable of withstanding G-forces
- No high voltage cable running through the cable channel
- Miniaturised Design
- Detachable high voltage distribution block
- LED's on both sides
- Microprocessor controlled
- External Setpoint control
- Remote on/off signal
- IQ version available

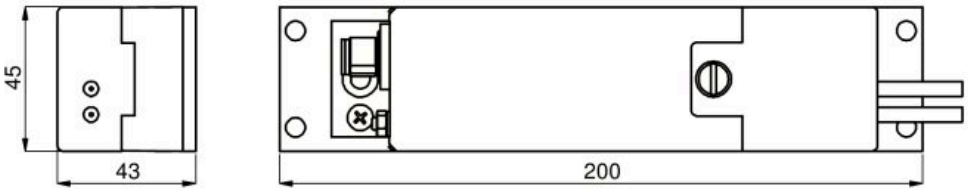
Manual operation can be implemented by an additional control circuit. The control circuit enables you to mount a potentiometer and LED by simply providing 2 holes in the front panel of your machine interface.

Remote control kit optional

Full control over the charging cycle



Charging cycle



Technical drawing CMME

Example:

Remote on/off pulse via PLC 700 ms
Cycle OK signal after 33 ms

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