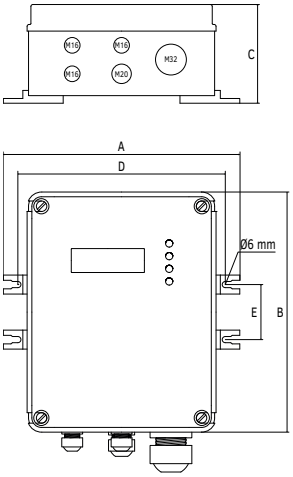
14. Technical specifications

14.1 Physical properties

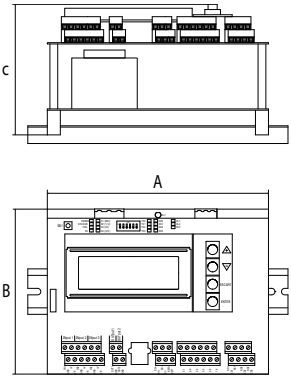
14.1.1 Dimensions and weight

Model	A	B	C	D	E	Weight (kg)
ECM 230–400 V IP55	249	254	107	218.5	58	1.5
ECM 230–400 V IP00	170	127	105	-	-	0.8
ECM 20–24 V IP00	170	127	85	-	-	0.8

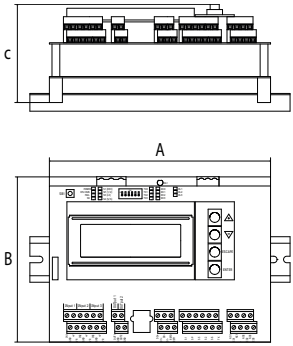
ECM 230–400 V IP55



ECM 230–400 V IP00



ECM 20–24 V IP00



14.1.2 Case and cable clamps

Materials	GW-PLAST 75 maximum temperature 60 °C (ball heat sealing 85 °C) and aluminum.
Screw plugs	TPN series with max 1.8 Nm torque (CEI 23-58)
Protection rating	IP55
Pollution	High Pollution
Fire resistance	Category D
M16, M20, M32 cable clamps	IP67 protection, class V2, polyamide PA6

14.1.3 Storage and installation environmental conditions

Working temperature	from -20 to +50 °C. For temperatures below -10 °C use input **S2**.
Storage temperature	from -25 to + 60 °C
Humidity	RH < 85% non condensing
Vibrations	Under 1 G (9.8 m/s2)

14.2 Electrical specifications

14.2.1 Applications

EC motors with 0–10 V control signal or Modbus.

14.2.2 Specifications

Rated voltage	Single phase 230-460 V ac ± 10% Single phase 20-24 V ac ± 10%
Frequency	50/60 Hz automatically recognized
Over voltage protection	For 230–460 V model only. Surge category II (4 KV), EN 61000-4-5
Auto restart	The controller automatically restarts as soon as the alarm condition is cleared.
Maximum absorption on signal 0-10 V	20 mA (minimum load resistance 500 Ω) ***NOTICE**: always check total absorption on signal 0–10 V.*
Transducer power supply	22 Vdc -10/+20 % 60 mA, not stabilized. Protected against short circuiting.
Potentiometer and sensor power supply	10 Vdc/5 Vdc (automatic switching), stabilized with protection.
RL1 relay	**NO**: 5 A at 250 Vac and cosfi 0.8 **NC**: 3 A at 250 Vac and cosfi 0.8
Rely RL2/RL3	**NO**: 5 A at 250 Vac and 30 Vdc

14.2.3 Rated current and power

Model	Command circuits	Dissipated in room
ECM 24 V, 230–460 V	10 VA	10 W

14.2.4 Electric insulation

Command circuits	Only model 230-460 V. 4000 V ac between control input and mains voltage parts

14.2.5 Nominal cable sections

Cable	Value (min–max)
Signal	0.25–1.5 mm^2 30–15 AWG Cu
Power supply	0.5–2.5 mm^2 25–10 AWG Cu

14.2.6 BELDEN cable specifications for RS485 connection

Specifications	Value
Conductor 1	CuSn 7x0.25 mm
Conductor 1 (resistance)	50 Ω/km
Conductor 2	CuSn 7x0.25 mm
Conductor 2 (resistance)	50 Ω/km
insulation	PEE 2.35 mm
Color code	White/Orange Blue
Plate 1	AL/pet 100%
Sheath 1	CuSn 65%
Internal sheath	Oil-resistant gray flame-retardant PVC
Internal sheath (diameter)	7.6 ± 0.1 mm
External sheath	Black UV ray resistant PE

Specifications	Value
External sheath (diameter)	9.0 ± 0.1 mm
Characteristic impedance	125 ± 15 Ω
Mutual or coaxial cable capacitance	MUTUAL 36 pF/m
Propagation speed	78%
Shielding efficiency (100–900 MHz)	>85 dB
Drain wire	CuSn 7x0.20 mm
Rated voltage	300 V
Working temperature	from -20 to + 80 °C (*) from -25 °C only with power supply ON)
Sheath insulation	C-4 (U0=400V)
Test voltage	4.5 kV ac
Minimum bending radius (internal/external)	40/90 mm
Weight	8.4 Kg/100 m
Notes	Suitable for installation outdoors, under ground and damp environments

(*) The ECM constantly monitors operation and in case of power OFF, stores the shutdown in the TOOL: EVENT LOGGER of the CLIMA Sinergy.

14.3 Maintenance

14.3.1 Clean Up

For the model with case, clean with a dry cloth.

14.3.2 Responsibility for disposal



As indicated in European Directive 2012/19/EU, do not dispose of the product with other unsorted urban waste.

The owner is responsible for the disposal of these products and of the other electric and electronic equipment using the specific collection organizations indicated by the government or local public agencies.

Correct disposal and recycling help to prevent potentially negative consequences to the environment and health of people.

For more detailed information about disposal, contact the responsible public authorities, the waste disposal service, or the representative from which the product was purchased.

14.4 Conformity

14.4.1 Declaration of conformity

The full text is available on the website www.selpro.it.

14.4.2 EC - Declaration of conformity

Directive	EC standard code	Version
EMC 2014/30/EU	EN IEC 61800-3	2018
	EN IEC 61000-6-2	2019
	EN 61000-6-3	2007 +A1:2011
	EN IEC 55014-1	2021
	EN IEC 55014-2	2021
Safety 2014/35/EU	EN 61800-5-1	2007 +A1:2017 +A11:2021
	EN 60335-1	2012 +A13:2017 +A2:2019
	EN 60730-1	2017
RoHS 2012/19/EU	EN 50581	2012

14.4.3 UK - Declaration of conformity

Subject	Name	Version
EMC	BS EN IEC 61800-3	2018
	BS EN IEC 61000-6-2	2019
	BS EN 61000-6-3	2007 +A1:2011
	BS EN IEC 55014-1	2021
	BS EN IEC 55014-2	2021
Safety	BS EN 61800-5-1	2007 +A1:2017 +A11:2021
	BS EN 60335-1	2012 +A13:2017 +A2:2019
	BS EN 60730-1	2017
RoHS	BS EN 50581	2012

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