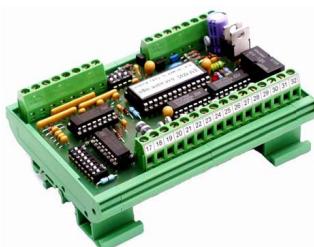




ELECTROMEN STOCK PRODUCTS

TECHNICAL SPECIFICATIONS AND USER'S MANUALS

20%⁸/₁



www.electromen.com



ERMEC, S.L. BARCELONA
C/ Francesc Teixidó, 22
08918 Badalona
(España)

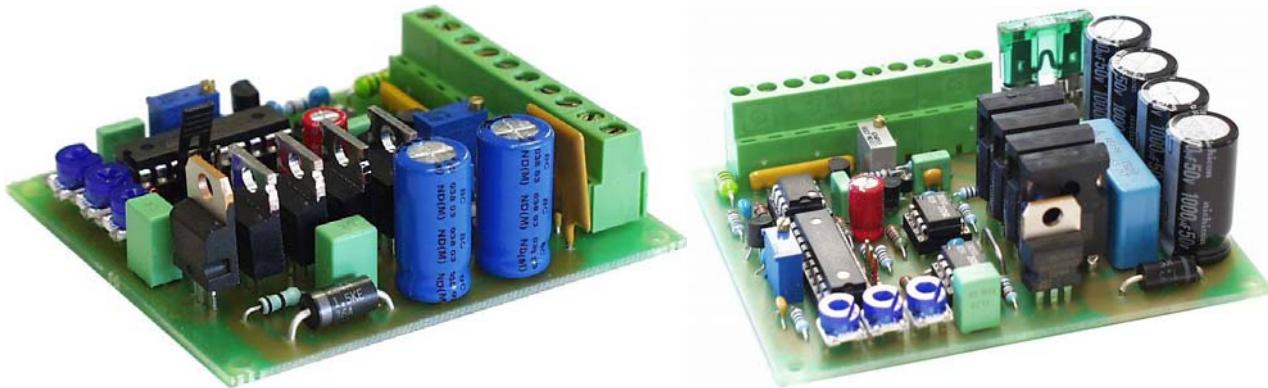
Tel.: (+34) 902 450 160
Fax: (+34) 902 433 088
info@ermec.com
www.ermec.com

ERMEC, S.L. MADRID
c/Mejorada, 17, 1^aPla.Of.D4
28850 Torrejón de Ardoz
(España)

PORUGAL
portugal@ermec.com
BILBAO
bilbao@ermec.com



Standard – Modified – Customised Automation Electronics since 1988



Electromen manufactures electronic devices for industrial environments and automation solutions.

Due to our long experience in industrial electronics engineering, Electromen designers have repeatedly come across the same requirements in signal isolation and conditioning, which is why Electromen has created a growing family of automation modules, that are ready to be delivered from stock.



The Electromen automation product family includes products for handling the most common problems and control tasks in industrial environment. Our stock products include:

1. Drivers/power controllers for DC motors, stepper motors, brushless DC motors, spindle motors, actuators as well as DC motor servo controllers.
2. Automation modules, galvanic isolators, signal conditioners.
3. Measuring and supervision devices.

These products are designed to be as versatile as economically reasonable.

ELECTROMEN STOCK PRODUCTS

GALVANIC ISOLATORS / SIGNAL CONDITIONERS	6
EM-M11A Multiscale galvanic signal isolator and conditioner	7
EM-M14 Loop powered 4...20mA galvanic isolator	8
EM-M17b F to U / I -converter, multiscale	9
EM-M19 Potentiometer converter, pot. to U / I multiscale	10
EM-M20 Potentiometer converter for 4...20mA current loop	11
EM-M21A Pt-100 to 4...20mA current loop converter, multiscale	12
EM-M22 TRMS 5A / 1A to 4...20mA converter	13
EM-M24 Multiscale galvanic isolator also for bipolar signals	14
EM-M25 TRMS 0...400Vac to 4...20mA converter	15
EM-M26 Trip amplifier for automation signals	16
EM-M40 8-channel alarm indication unit	17
EM-M40H 8-channel alarm indication unit	19
EM-M41 Input isolator for PLCs and control systems, from I to I, single channel	22
EM-M41-2 Input isolator for PLCs and control systems, from I to I, dual channel	22
EM-M43 Input isolator for PLCs and control systems, from I to U, single channel	23
EM-M43-2 Input isolator for PLCs and control systems, from I to U, dual channel	23
EM-M50 8-channel alarm panel	24
EM-M66 Ramp generator	26
EM-M69 Current measure unit 50A DC / AC	27
EM-M69-iso Current measure unit 50A DC / AC, galv.isolated	28
MEASURING AND SUPERVISION DEVICES	30
EM-30 Hall rotational speed sensor	31
EM-72 Vibration control unit	32
EM-82-05A Vibration sensor 5g	34
EM-82-35 Vibration sensor 35g	35
EM-82-50B Vibration sensor 50g	36
EM-83 Scanning vibration meter (Includes scanner + 5g sensor + magnet)	37
EM-95 8-channel galvanic isolator & signal conditioner	40
EM-138 30 LED Bar Display	43
EM-138-3-A1 Triple 30 LED Bar Display	44
EM-203A Battery watch-dog 12V	45

DRIVERS / POWER CONTROLLERS	46
EM-12A PWM DC-motor control unit 24V 8A	47
EM-28 DC-motor control unit 12 - 24V 3A	49
EM-67 DC-motor controller 24V 3A	51
EM-75 DC-power controller 12 - 30V 3A	53
EM-76 DC-power controller 12 - 32V 3A	54
EM-101 DC-motor controller 24V 3A 4-QUAD	55
EM-101-BI DC-motor controller 24V 4A 4-QUAD	58
EM-106A Brushless DC-motor control unit 12 - 24V 7A	61
EM-115 DC-motor control unit 12 - 36V 25A 4-QUAD	63
EM-115-48 DC-motor control unit 20 - 60V 25A 4-QUAD	65
EM-136 Stepper motor microstepping controller unit 12 - 45V 0.5 - 4A	67
EM-140A ON-OFF DC-motor controller 24V 8A	69
EM-143s DC-motor servocontroller 12 - 32V 4A 4-QUAD	71
EM-151B Brushless DC-motor driver 12 - 24V 25A	73
EM-154 Dimmer / DC-power controller	75
EM-160 DC-motor servocontroller 12 - 32V 12A 4-QUAD	76
EM-162 230Vac / 1A power controller	78
EM-165 Positioning driver 12 - 32Vdc	79
EM-165pf Positioning driver 12 - 32Vdc, pulse feedback	81
EM-167 Compact positioning driver 12 - 32Vdc	83
EM-170 DC – Motor controller 12 – 24V 1.5A	85
EM-174A DC-motor driver 12 / 24Vdc 8A	87
EM-175 DC-motor controller brake 12 / 24Vdc 10A	89
EM-176 DC-motor controller brake 12 / 24Vdc 10A	91
EM-180 ON-OFF DC-motor driver 12 / 24Vdc 10A	93
EM-185 DC-motor speed regulator 12 / 24Vdc 3A	95
EM-186 Stepper motor microstepping controller 15 - 42V 1 - 8A	97
EM-186-72 Stepper motor microstepping controller unit 20 - 80V 0.8 - 5A	99
EM-206 Brushless motor controller 12 - 36V 10A	101
EM-206-48 Brushless motor controller 30 - 56V 5A	103
EM-213 1-Quadrant power controller 12 - 24Vdc 10A	105
EM-217B(-H) Inverter for 230VAC 1-ph induction motors	107
EM-231A Control unit for doors and hatches	109
EM-239 Parallel driver for two actuators	112
EM-240 Brushless DC – motor controller 12 – 24V 1.5A	115
EM-241A B DC – Motor controller 12 – 24V 15A	117
EM-241B-16k DC – Motor controller 12 – 24V 10A	119
EM-241B-pli DC – Motor controller 12 – 24V 15A	121
EM-241C DC – Motor controller 12 – 24V 15A	123
EM-241C-48V DC – Motor controller 24 – 48V 10A	125
EM-241C-JS1 DC – Motor controller 12 – 24V 15A	127

EM-241-saf	DC Motor controller 12 24V 15A	129
EM-241-spf	DC Motor controller 12 24V 15A	132
EM-243A	DC – Motor controller 12 – 24V 50A	135
EM-243C	DC – Motor controller 12 – 48V 50A	137
EM-243C-JS1	DC – Motor controller 12 – 42V 50A	139
EM-259A	Isolated Dimmer 12-24Vdc 4A	141
EM-262	230VAC / 3A Power controller	142
EM-269A	Brushless DC-Motor driver 12-35V 2A	143
EM-282C	DC-Motor Controller 12-24V100A	145
EM-282C-48V	DC-Motor Controller 12-24V100A	147
EM-282C-JS1	DC-Motor Controller 12-24V100A	149
EM-285	DC – Motor speed regulator 12 / 24V 20A	151
EM-291A	Brushless DC-Motor driver 12-35V 4A	153
EM-314	Stepper Motor driver 6A 12-24V	155
EM-316A	Brushless DC-motor driver 12-35V	157
EM-318	Stepper Motor driver 3A 12-24V	159
EM-324C	DC-Motor Controller 12-24V 3 4A	161
EM-324C-JS1	DC-Motor Controller 12-24V 3 4A	163
EM-324-saf	Positioning Driver 12-24V 4A	165
EM-324-spf	Positioning Driver 12-24V 4A	168
EM-346	Brushless DC-motor Driver 12-35V 10A	171
EM-347	Brushless DC-motor Driver 12-36V 40A	173
EM-347-48V	Brushless DC-motor Driver 24-48V 30A	175

ACCESSORIES / ENCLOSURES		178
EM-328	Interface Unit Series	179
EMEN ToolLite	User Interface for EM Products	180
EM-A1	Option card for symmetric control	182
EM-A3-10k	Control potentiometer	183
EM-A18 + A14	Remote control system	184
EM-A23	Brake resistor	185
EM-A30	Micromatch Link Cable	186
EM-A31	Micromatch Link Cable	187
EM-236	Interface unit	188
Metal enclosures for EM-products		190
Plastic enclosures for EM-products		191
EM-Rail bases for Electromen products		192

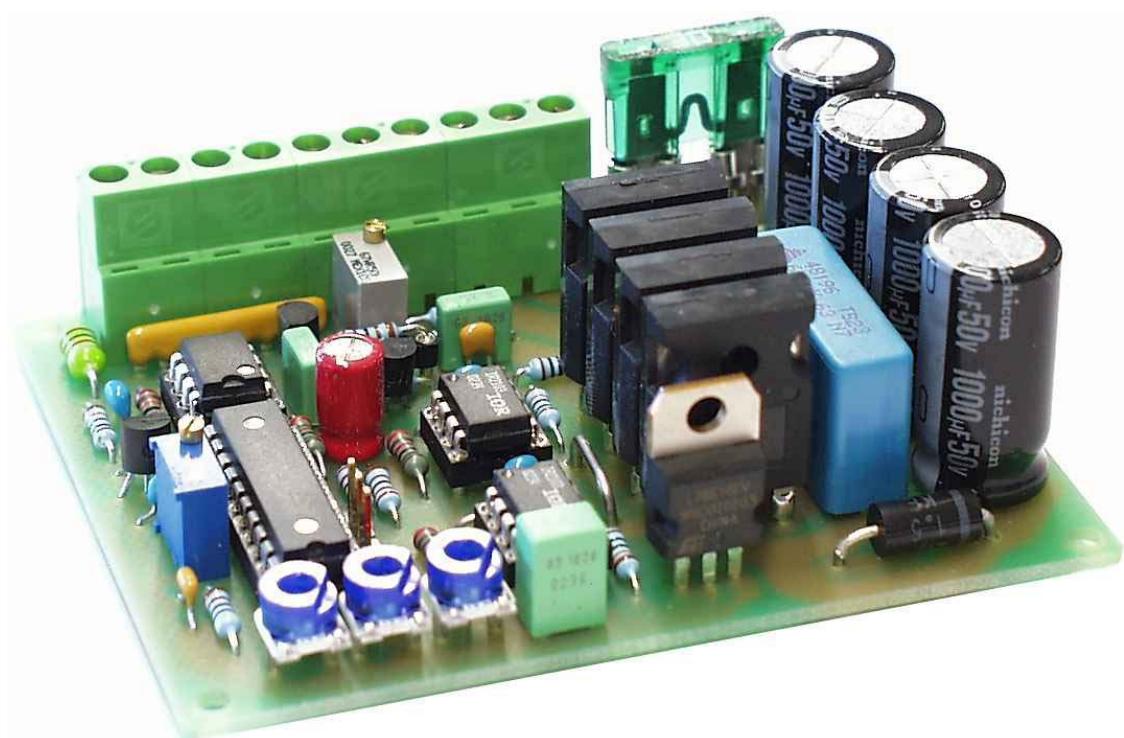
GALVANIC ISOLATORS / SIGNAL CONDITIONERS



MEASURING AND SUPERVISION DEVICES



DRIVERS / POWER CONTROLLERS



9A!& '87!ACHCF'7CBHFC@I BH%&!(J " 5



FEATURES:

- 4-quadrative operation
- Continuous / 2-step speed control
- Adjustable current limit
- Logic inputs for presettable speed
- RI-adjust for load compensation
- Selectable rundown mode, braking / flywheeling
- High efficiency
- Din-rail mountable

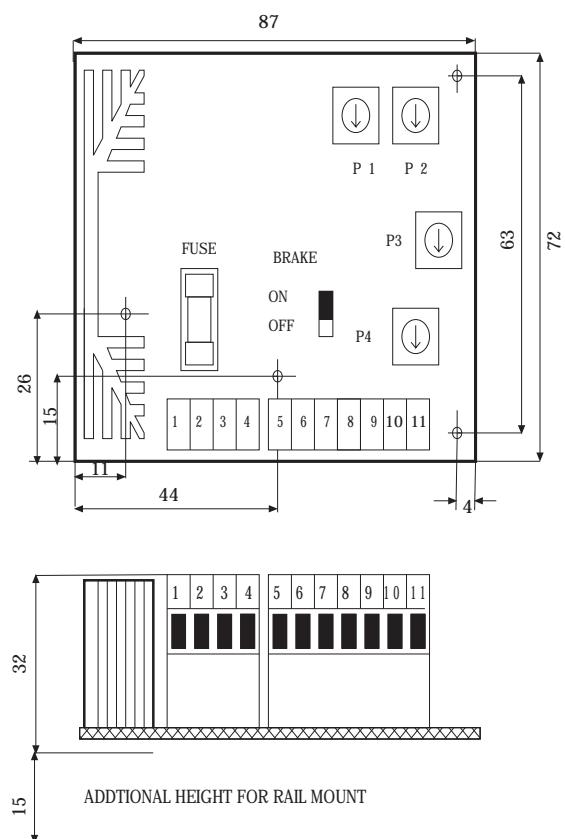
EM-28 is designed for modern automation systems. Controls can be performed easily with relay- or open collector -outputs. Analog controls work with positive voltage. Usable motor can be permanent magnet motor with brushes in power range of 5 ... 60 W. Due to the advanced pulse control (PWM) the unit operates with high efficiency, low temperature losses and provides a high starting torque.

Loading of the motor can be compensated with inbuilt RI-adjustment. The current, or in other words, the torque of the motor can be controlled with I-trim or with external control. The operation of the current limit is indicated with red led. The 2 preselectable rotating speeds can be adjusted with 2 control level trims P3 and P4.

Alternatively P4 is the max.level adjustment when the analog control is used. In braking the unit leads the energy to the internal resistor of the motor. Braking can be disabled.

TECHNICAL DATA:

Supply voltage	12...32 Vdc
Max. load	3A (RMS) mom 6A (5s)
Operating frequency	approx. 30 kHz
Control pot.meter	1 ... 10 kohm
Recommended fuse	max. 5A, slow
Voltage loss /V	$0.5+0.7*Im$
Input impedances	> 10 kohm. Pins 6-10
Analog controls	
Pin 8 speed	0 ... 5 V => 0 ... 25 V
Pin 6 current	0 ... 5 V => 0 ... 6 A
Digital controls	"on" < 2 V / closed "off" > 4 V / open
Pin 7,9,10	
Operating temp.	0...50 °C
Dimensions	87*72*32 mm
Weight	about 200 g



5779GGCF-9G/ 9B7@CGI F9G



ERMEC, S.L. BARCELONA
C/ Francesc Teixidó, 22
08918 Badalona
(España)
Tel.: 93.450.16.00

Tel.: (+34) 902 450 160
Fax: (+34) 902 433 088
info@ermec.com
www.ermec.com

ERMEC, S.L. MADRID
c/Puerto Rico, 4
28220 Majadahonda
(España)
Tel.: 91.828.56.51

PORUGAL
portugal@ermec.com
BILBAO
bilbao@ermec.com

