

HeiDrive[®]

EC Compact (EC-C)

- Compact 1-Q control
- Optional terminal box integration
- SPC compatible inputs

The EC Compact Electronic EC-C is an electronic 1-Q control for brushless DC motors (EC motors). The controller is so small and compact that it can be integrated in the terminal box.

The controller is suitable for Heidolph EC motors and servo motors:

EC-C (alone, not integrated in terminal box):
Motor type 315 (60 W), 316 (95 W), 317 (max. 200 W)

EC-C (integrated in terminal box):
Motor type 315 (60 W), 316 (80 W)

Connector pin assignment

Pin	Name	Function
X1.1	+Ub	Power supply unit +24 VDC, ±15%
X1.2	-Ub	Power supply GND
X1.3	U	Motor winding connection
X1.4	V	Motor winding connection
X1.5	W	Motor winding connection
XS2.1	ÜHS	Motor overheating protection (make contact)
XS2.2	ÜHS	Motor overheating protection (make contact)
X2.1	URef	10V reference voltage for external setpoint potentiometer
X2.2	UIN	Speed setpoint input 0-10V
X2.3	IIn	Speed setpoint input 4-20mA, Bürde 85R7
X2.4	GND	GND potential for all inputs and outputs
X2.5	24Vext.	Control voltage output +24 VDC
X2.6	START	Start input (high=output active)
X2.7	/BRAKE	Brake input (L = brake active)
X2.8	FWD/REV	Rotation direction input (high = clockwise)
X2.9	/ERROR	Error output (low = error or start signal low)
X2.10	IMPULS	Pulse output
X3.+	VCCRLE	Positive power supply for rotor position recognition
X3.HA	HA	Hall sensor A
X3.HB	HB	Hall sensor B
X3.HC	HC	Hall sensor C
X3.-	GND	GND potential of the power supply for rotor position recognition

Advantages

- SPC compatible inputs
- Variable braking ramp
- Ultra compact
- Integration possible (IP 54)
- Dynamic braking and accelerating (with variable times)
- Positioning possible with SPC and encoder
- Control and power connectors on the terminal box

Applications

for decentralised drive tasks
e.g.
Conveyors
Deckle positioning
Packing machines
Machines for printing/paper



Heidolph Elektro GmbH & Co. KG, Starenstraße 23, D-93309 Kelheim
Tel. +49/9441/707-0, Fax +49/9441/707-257, www.heidolph.de, e-mail: info@heidolph.de

Subject to technical changes.



Specifications

Version	Order no. 13-001-012-48	Order no. 13-001-012-59	Order no. 13-001-012-60
Type	without heat sink	with cooling strip, for service with 60-95 W motors	with cooling strip and heat sink, for service with motors up to 200 W
Integrated in the terminal box	yes	no	no
Power supply:	24V ± 15% DC	24V ± 15% DC	24V ± 15% DC
Power output: with motor 315 at S1: with motor 315 at S3 (25%): with motor 316 at S1: with motor 316 at S3 (25%): with motor 317 at S1:	60 W 120 W 80 W/95* 160 W	60 W 120 W 95 W 160 W	60 W 120 W 95 W 160 W 200 W
Speed setpoint selection:	a) with a potentiometer 10kOhm b) 0 -10V c) 4 –20mA		
Control range:	1 : 15		
Speed control range:	200 - 3000 rpm		
Speed accuracy:	+/- 1.5 %		
Rotation direction:	Change connections with or without ramp possible		
Ramp time:	0-28 sec.		
Interference suppression:	acc. to EN 50081-2 and EN50082-2 with EMC design		
Protection class:	IP 00 (in the terminal box IP 54)		
Temperature range:	0-40°C		
Dimensions : (Board)	89 x 67 x 30 mm (L x W x H)		
Dimensions: (Terminal box)	105 x 78 x 49 mm (L x W x H) (without connector)		

Connections and dimensions

