

Servo drive E°Darc K04



Functional characteristics

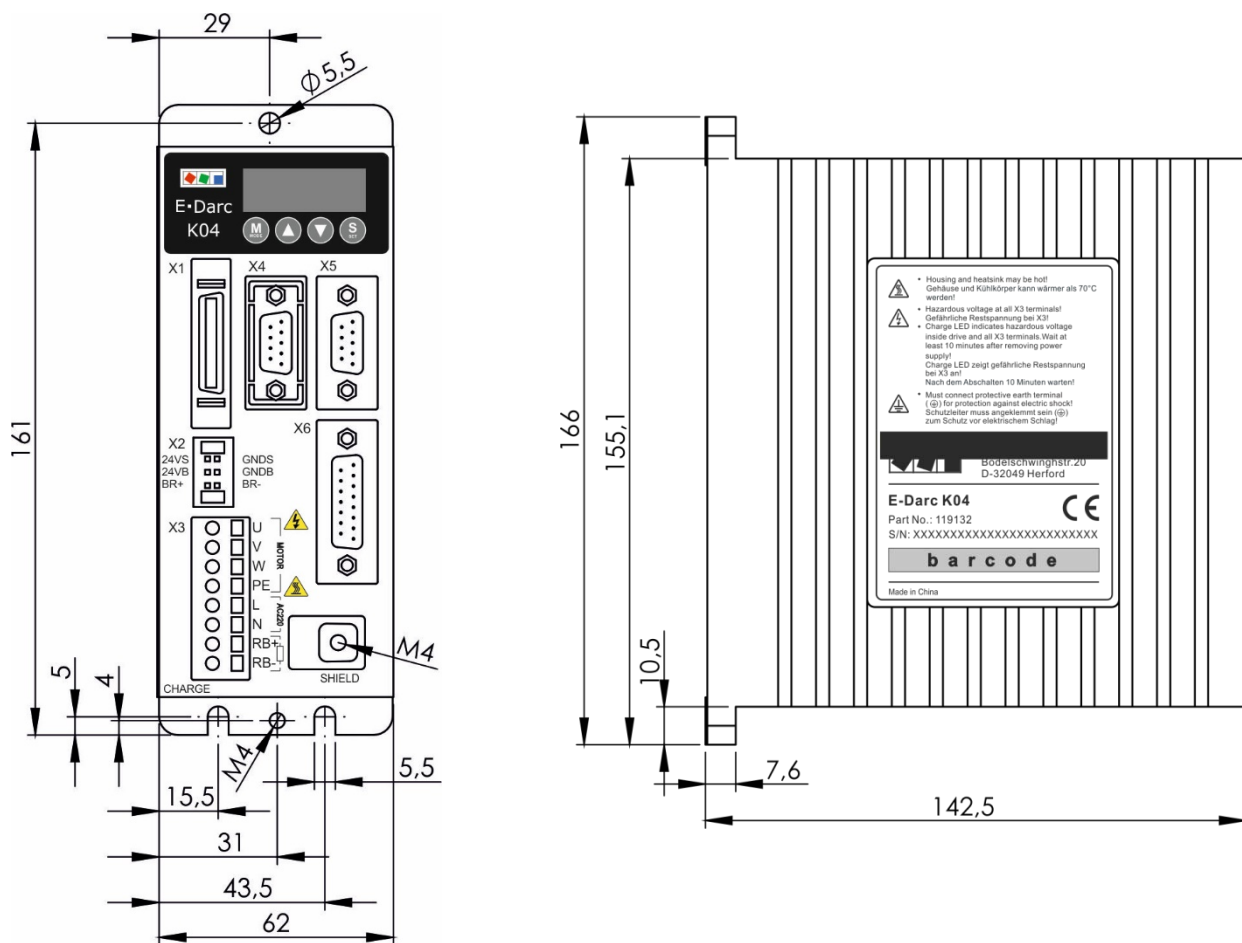
- Operation of synchronous and linear motors
- Interpolated operation via CANopen
- Digital current, velocity and position control with position, velocity and torque limitation
- Feedback: optical incremental encoder, 6 channels: ABZ + UVW, open-circuit detection and counting error detection; absolute encoder, singleturn and multiturn (battery-buffered)
- Monitors short circuits, voltage, temperature, encoder, lag error and I²t
- Communication via CANopen
- Parameters and setpoints set via CANopen or front-side input buttons
- Configurable digital in- and outputs
- Processes end switches, several homing methods available
- Power stage release and error reset via digital inputs
- Status display and various settings via 7-segment-display and front-side input buttons

Article description

Designation	Item no.
▪ E°Darc K04	119132



Dimensions



All dimensions indicated in mm



Connections

X1 – (siehe nächste Seite)

X2 – Logic and brake

24VS	Supply logic 24 V
GNDS	Supply logic GND
24VB	Supply brake 24 V
GNDB	Supply brake GND
BR+	Brake +
BR-	Brake -

X3 – Power supply

U	Motor phase U
V	Motor phase V
W	Motor phase W
PE	Potential earth
L	Power
N	Neutral
RB+	Braking resistor +
RB-	Braking resistor -

X4 – CAN

Pin	Designation	Assignment
1	NC	--
2	CAN_L	CAN low
3	GND	Ground
4	NC	--
5	NC	--
6	NC	--
7	CAN_H	CAN high
8	NC	--
9	NC	--

X5 – RS232

Pin	Designation	Assignment
1	NC	--
2	TX	Receive data
3	RX	Send data
4	NC	--
5	GND	Ground
6	NC	--
7	NC	--
8	NC	--
9	NC	--

X6 – ENCODER IN

Operated with incremental encoder:

Pin	Designation	Assignment
1	+5V	Supply voltage
2	A	A signal
3	B	B signal
4	Z	Z signal
5	U	U signal
6	V	V signal
7	W	W signal
8	PTC-IN	Motor temperature input
9	GND	Ground
10	/A	A signal
11	/B	B signal
12	/Z	Z signal
13	/U	U signal
14	/V	V signal
15	/W	W signal

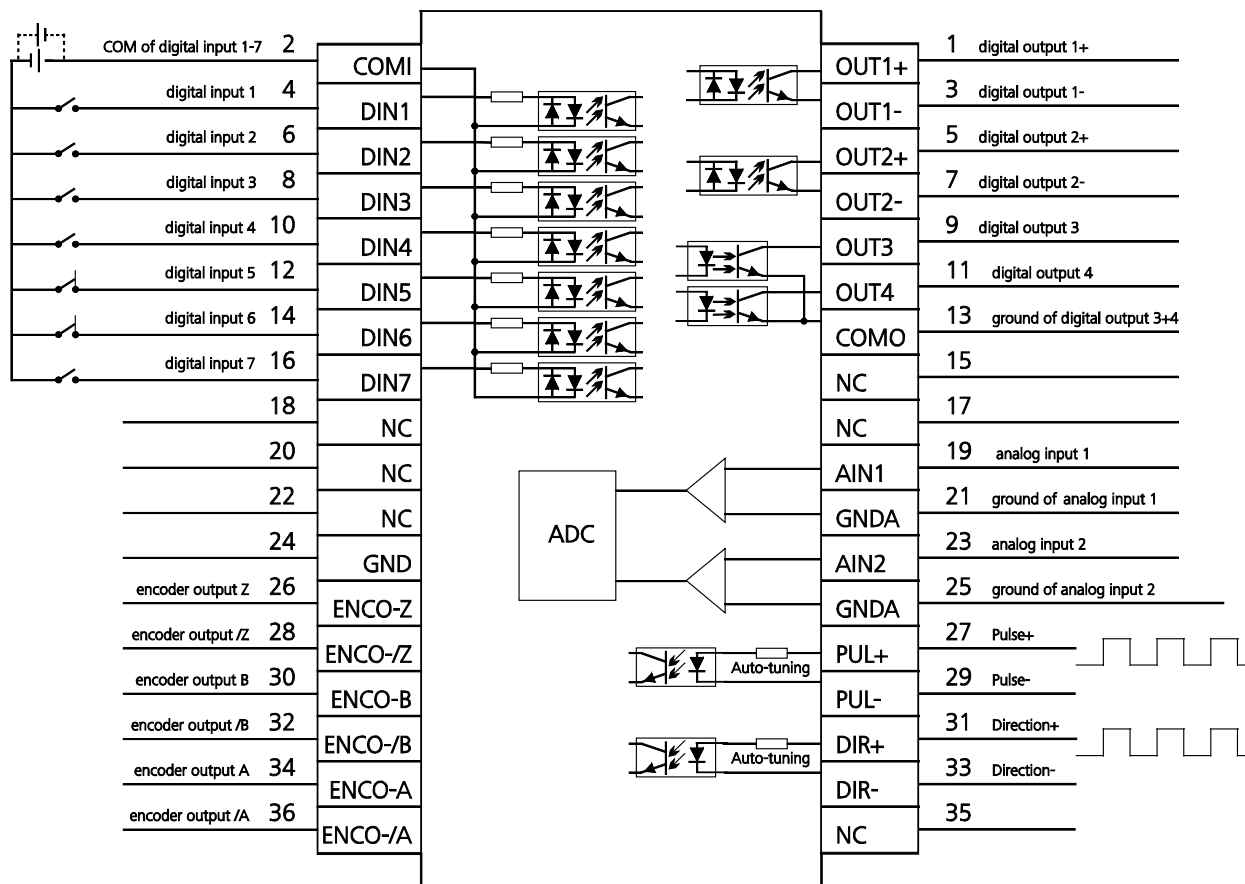
X6 – ENCODER IN

Operated with absolute encoder:

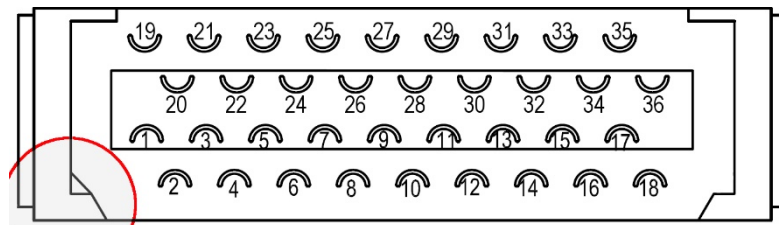
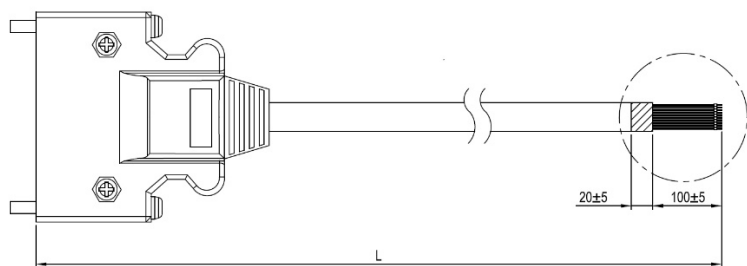
Pin	Designation	Assignment
1	+5V	Supply voltage
2	NC	NC
3	NC	NC
4	NC	NC
5	NC	NC
6	NC	NC
7	SD	SD
8	PTC-IN	Motor temperature input
9	GND	Ground
10	NC	NC
11	NC	NC
12	NC	NC
13	NC	NC
14	NC	NC
15	/SD	/SD



X1 – Wiring diagram



Cable (item no. 2252)



Colour	Designation	Pin
white	OUT1+	1
brown	OUT1-	3
orange	OUT2+	5
yellow	OUT2-	7
gray	DIN3	8
pink	DIN4	10
blue	DIN5	12
red	DIN6	14
black	DIN7	16
purple	COMI	2
Shield	Shield	Housing



Technical data

Power	Main power supply	230 V AC +/-10%
	Power frequency	47 ... 63 Hz
	Control voltage	24 V (18 ... 30 V) DC / 1 A DC
	Nominal apparent power (max., depends on rated motor current)	1,6 kVA
	Power dissipation at 4 A _{RMS} continuous current /820 W el. power output	ca. 25 W
Motor output	Rated current I _{N (RMS)}	4 A _{RMS}
	Peak current I _{S (PEAK)}	15 A DC
Feedback	Incremental encoder	6 channels: ABZ + UVW, 5 V Max. input frequency: 8 MInc/s or 2 MHz
	Absolute encoder	Singleturn/multiturn (battery-buffered)
Digital inputs	DIN1 ... DIN7	Ground reference COMI
Analog inputs	ANIN1, ANIN2	Ground reference GNDA
Digital outputs	OUT1, OUT2	differential, floating
	OUT3, OUT4	Ground reference COMO
Miscellaneous	Switching threshold for braking resistor	380 V DC +/- 5 V
	Overvoltage threshold	400 V DC +/- 5 V
	Undervoltage threshold	200 V DC +/- 5 V
	Cooling type	Convection
Ambient conditions	Ambient temperature (operational)	0 ... +45 °C
	Ambient temperature (storage)	-10 ... +70 °C
	Permitted air humidity	< 90% at 40 °C (non-condensing)
	IP code of case	IP20
	Mounting orientation	vertical
	Permitted operating altitude	Typ. 1000 m a. s. l.



Annex

Dimensions – brake resistor (68 Ohm/100 Watt, item no.: 119159)

