



esiMot 5/2

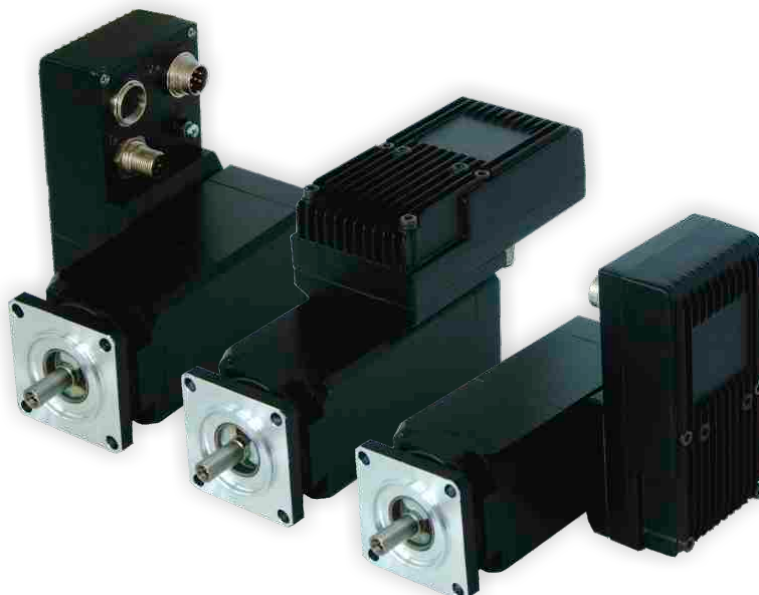
Decentral Servo - Drive

all-in-one
servo motor
variable design

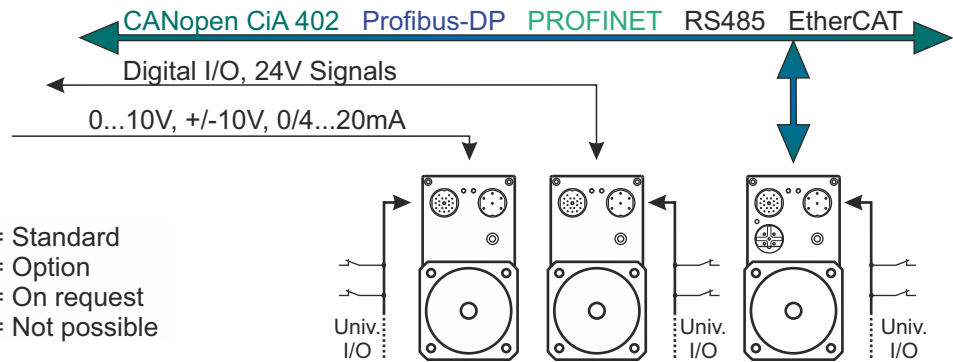
- Brushless servo-motor with integrated electronics
- Positioning and speed-/torque regulator mode
- Digital 4-Q regulator
- Direct status- and diagnostics function through LED's
- Digital inputs and outputs (24V)
- RS232 for parameter setting
- 24 - 60V DC motor supply
- Separate logic supply 24V, wrong polarity protected

Order-Options:

- Set value analog
+/- 10V DC / 0 ... 10 V DC with direction signal
0/4 ... 20 mA
- Recordable motion data (PLC-interface)
- Galvanically insulated fieldbus interface:
 - Profibus-DP
 - PROFINET
 - CANopen CiA 402
 - EtherCAT CoE
 - Modbus RS485
 - Bus address and baud rate adjustable via switch
- Safe Torque Off Cat. 3 Performance Level e
- Multiturn absolute encoder (built-in)
- Standstill brake
- Planetary gearboxes



esiMot Features



	esiMot-Type	Without Fieldbus		With Fieldbus
		esiMot x/x.1xx.xx Amplifier mode	esiMot x/x.2xx.xx Positioning mode	esiMot x/x.3-7xx.xx All modes
Characteristics	Integrated servo-amplifier	✓	✓	✓
	Integrated positioning logic (position loop)	-	✓	✓
	Digital 4Q speed and torque regulator	✓	✓	✓
	Position acquisition			
	- Incremental encoder* (Standard with esiMot7)	□	□	□
	- Absolute encoder Multi-Turn	□	□	□
	Fieldbusses (see order code)	-	-	□
	Analog set value	✓	-	□
	Digital inputs	4	8	4 / ◇6
	Digital outputs	1	2	2 / ◇4
	Encoder output A/B/0 24V	✓	-	◇
	Integrated ballast circuit and -resistor	✓	✓	✓
	Connection for external ballast resistor	✓	✓	✓
	Wrong polarity protection	✓	✓	✓
	Stand still brake	□	□	□
	RS232 Programming interface (19,2kBaud)	✓	✓	✓

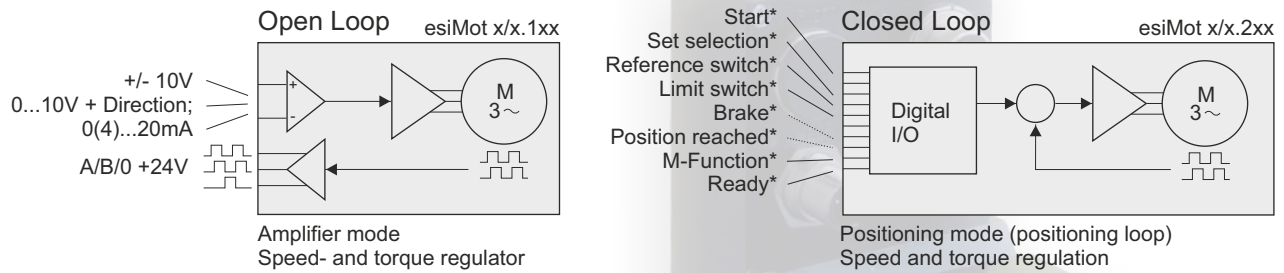
Functions and Programming	Programming/Parameter setting			
	- via RS232 Interface	✓	✓	✓
	- via Fieldbus	-	-	✓
	- Position-Teach-In	-	✓	-
	Reference run management	-	✓	✓
	Limit switch (Hard- and Software)	-	✓	✓
	Automatic brake management	□	□	□
	Free programmable move records	-	15	15
	- Velocity	-	✓	✓
	- Acceleration/Deceleration (separate adjustable)	-	✓	✓
	- On-the-fly record change	-	✓	✓
	- Dwell time	-	✓	✓
	- Set outputs (M-functions)	-	✓	✓
	Regulating modes			
	- Electronic shaft/electronic gear	-	✓	✓
	- Speed / Torque (PI-Regulation)	✓	✓	✓
	- Absolute, Relative, Modulo Position (P-Regulation)	-	✓	✓

Monitoring	Status LEDs	2	2	3
	Signalling e.g. for:			
	- Motor temperature (I ² t)	✓	✓	✓
	- Motor temperature PTC	✓	✓	✓
	- Output stage temperature	✓	✓	✓
	- Ballast power internal	✓	✓	✓
	- Overvoltage/Undervoltage	✓	✓	✓
	Elapsed hour meter	✓	✓	✓
	Electronic type plate	✓	✓	✓

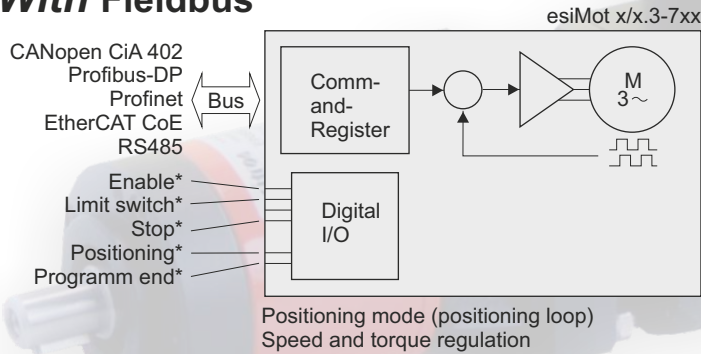
Accessories	Programming and parametrizing PC-software ServoLink	□	□	□
	Assembled feed cable	□	□	□
	Fitted gear boxes	□	□	□
	RS232-Adapter	□	□	□

* Resolution see motor-data

Without Fieldbus



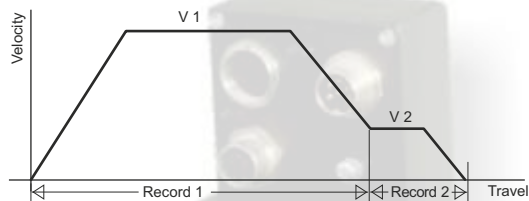
With Fieldbus



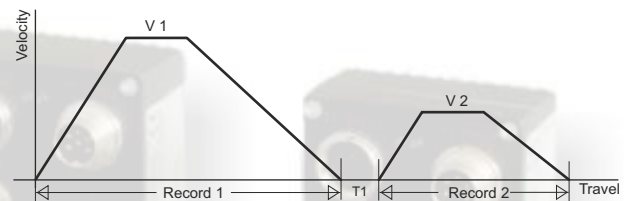
*) Example connection;
other I/O-Functions are assignable.

Sample-Driveprofile:

On-the-fly record change

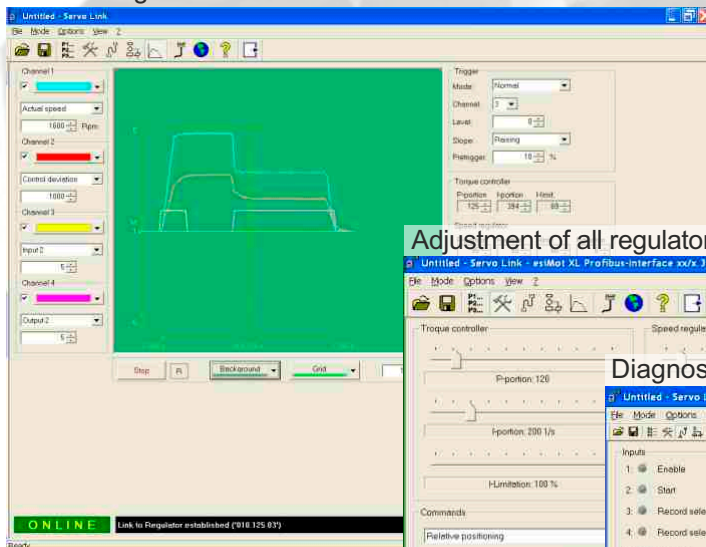


Record change with intermediate stop

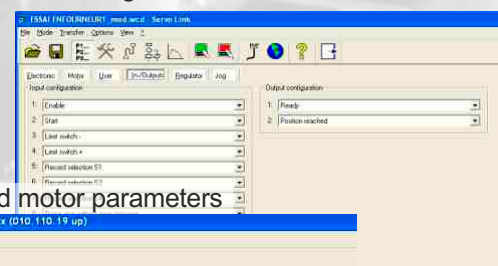


PC-Software:

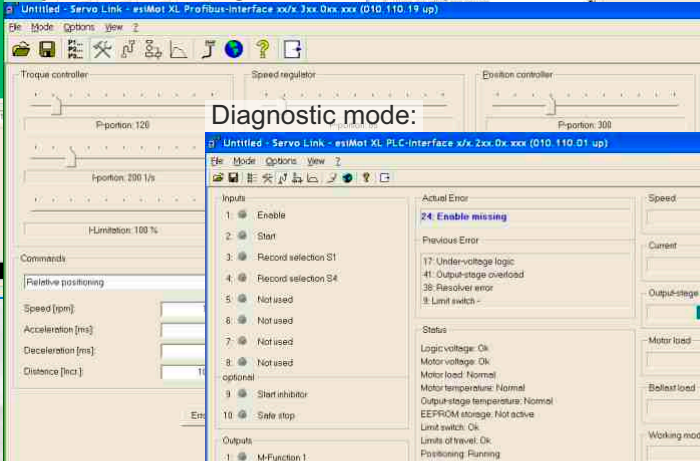
User settings



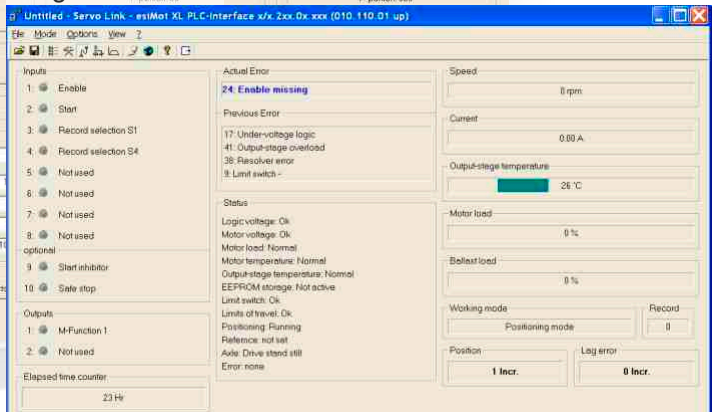
I/O-Configuration



Adjustment of all regulator and motor parameters



Diagnostic mode:



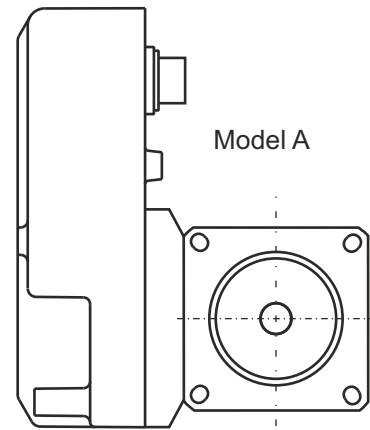
Other features:

- Display units mm, °, ...
- Project management
- Password protection
- User settings
- Oscilloscope
- Language selection German/English

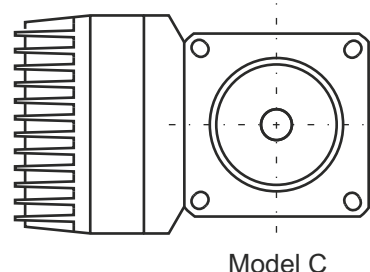
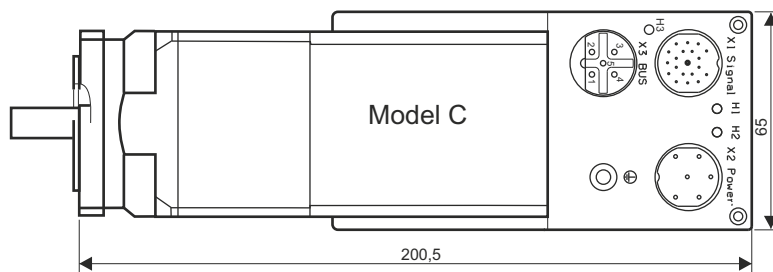
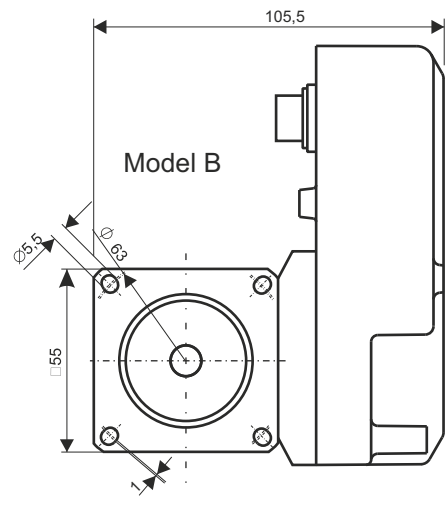
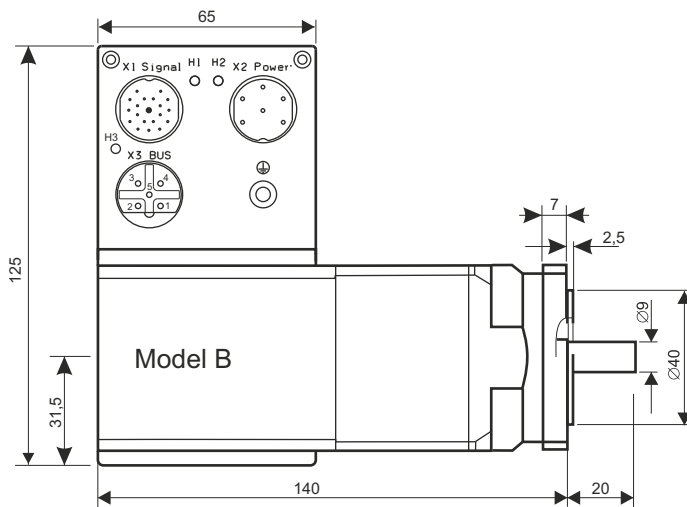
Subject to changes

Technical Data:

esiMot size		5/2
Motor power (S3)	[W]	240
Rated power	[W]	150
Nominal torque	[Nm]	0,5
Impulse torque	[Nm]	1,3
Rated speed	[min ⁻¹]	3000
Inertia	[gcm ²]	196
Motor-supply	[VDC]	48
Rated current	[A]	4,6
Peak current	[A]	12
Logic supply (0,3A)	[VDC]	24
Resolution incremental	[lpr]	4096
Resolution absolute enc.	[lpr]	4096
Protection class (mounting specific)		IP 64
Weight ca.	[kg]	1,6



Dimensions are mirrored to model B



Order code:

esiMot 5/2.xxx.xxX.yzz — Omitted in standard design

Size

Basic version

- Amplifier-Mode, 4/1 dig. I/O = 1
- PLC-Interface, 8/2 dig. I/O = 2
- Profibus-DP, 4/2 dig. I/O = 3
- CANopen, 4/2 dig. I/O = 4
- RS485, 4/2 dig. I/O = 5
- EtherCAT CoE, 4/2 dig. I/O = 6
- Profinet, 4/2 dig. I/O = 7

Position feedback

- Incremental encoder = 2
- Absolute encoder = 5

Standstill brake

- Without brake (Standard) = 0
- With standstill brake = 1

Custom specific options

Model

- A = Electronics left (view on axle)
- B = Electronics right (view on axle)
- C = Electronics in line

Safety functions

- = Without (Standard)
- 1 = STO Cat.3 PLe (EN ISO 13849-1)

Address switches (only with fieldbus)

- 0 = Without (Standard)
- 1 = With address switches

Input options (only with fieldbus)

- 0 = 4/2 digital I/Os (Standard)
- 1 = 6/2 digital I/Os
- 2 = Analog input + 4/2 dig. I/Os

All data in this folder have an informative character without warranty of characteristics. Changes without previous announcement reserved.

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