



## esiMot SL

### Decentral Servo - Drive

- 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 In- and Outputs (24V)
- RS232 for parameter setting
- Motor supply 400V AC, 50/60Hz
- Inegrated ballast circuit with resistor
- 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 DSP402
  - RS485
  - EtherCAT CoEVia switch adjustable bus address/baud rate
- Safe Torque Off Category 3 Performance Level e
- Multiturn absolute encoder internal
- Connection to external EnDAT2.2 encoder
- Standstill brake
- Planetary and worm gearboxes

3x 400VAC

all-in-one  
Servomotor  
High Dynamic  
2,9 - 4,4kW<sub>S3</sub>

CANopen®

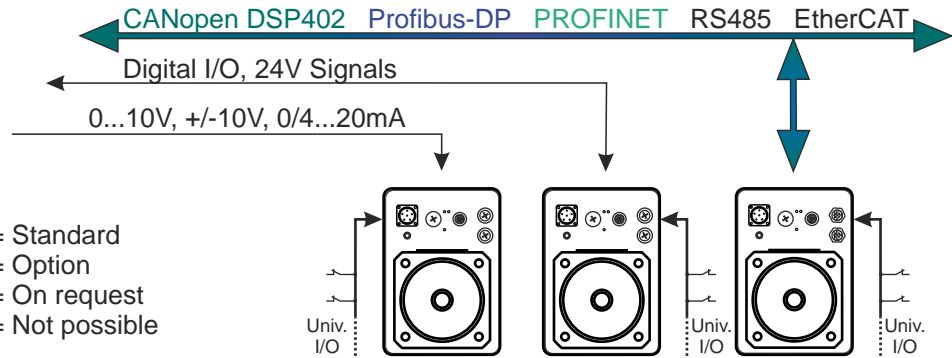
PROFI®  
BUS

PROFI®  
NET

EtherCAT®



# esiMot Features



- ✓ = Standard
- = Option
- ◇ = On request
- = Not possible

esiMot SL - Type	Without Fieldbus		With Fieldbus
	xx/x.1xx.xx Amplifier mode	xx/x.2xx.xx Positioning mode	xx/x.3-7xx.xx All modes
Integrated servo-amplifier	✓	✓	✓
Integrated positioning logic (position loop)	-	✓	✓
Digital 4Q speed and torque regulator	✓	✓	✓
Position acquisition**			
- Resolver	✓	✓	✓
- Absolute encoder multi-turn	-	□	□
Fieldbusses (see order code)	-	-	□
Analog set value	✓	-	◇
Digital inputs	4	8	8 / ◇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	✓	✓	✓
Safe Torque Off EN 13849-1 Cat. 3 PL e	□	□	□
Stand still brake	□	□	□
RS232 Programming interface (19,2kBaud)	✓	✓	✓

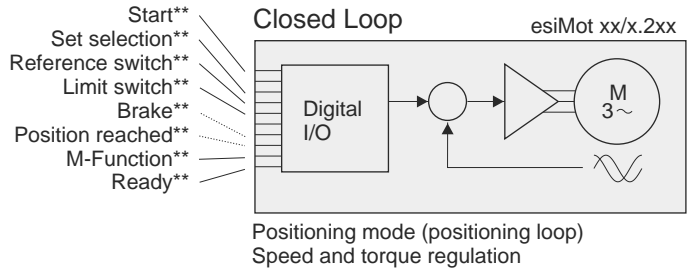
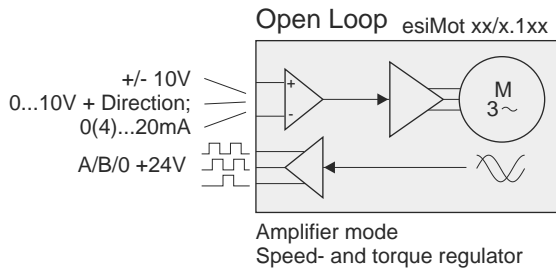
Functions and Programming	Without Fieldbus			With Fieldbus
	xx/x.1xx.xx Amplifier mode	xx/x.2xx.xx Positioning mode	xx/x.3-7xx.xx All modes	xx/x.3-7xx.xx All modes
Programming/Parameter setting				
- via RS232 Interface	✓	✓	✓	✓
- via Fieldbus	-	-	-	✓
- Position-Teach-In	-	✓	-	-
Reference run management	-	✓	✓	✓
Limit switch (hard- and software)	-	✓	✓	✓
Automatic brake management	-	□	□	□
Free programmable move records	-	15	15	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 (PI-regulation)	-	✓	✓	✓

Monitoring	Without Fieldbus			With Fieldbus
	xx/x.1xx.xx Amplifier mode	xx/x.2xx.xx Positioning mode	xx/x.3-7xx.xx All modes	xx/x.3-7xx.xx All modes
Status LEDs	2	2	3	3
Signalling e.g. for:				
- Motor temperature (I <sup>2</sup> t)	✓	✓	✓	✓
- Motor temperature PTC	✓	✓	✓	✓
- Output stage temperature	✓	✓	✓	✓
- Ballast power internal	✓	✓	✓	✓
- Overvoltage/Undervoltage	✓	✓	✓	✓
- Elapsed hour meter	✓	✓	✓	✓
Elektronik type plate	✓	✓	✓	✓

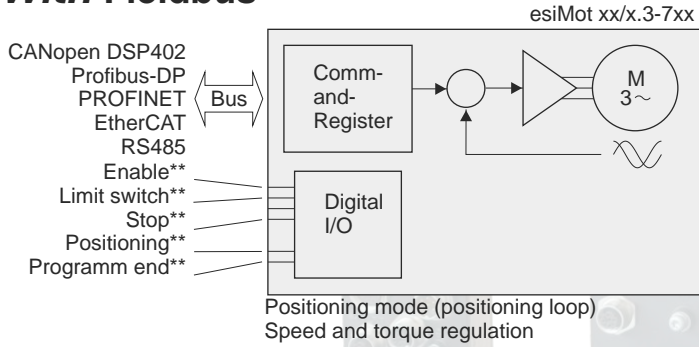
Accessories	Without Fieldbus			With Fieldbus	
	xx/x.1xx.xx Amplifier mode	xx/x.2xx.xx Positioning mode	xx/x.3-7xx.xx All modes	xx/x.3-7xx.xx All modes	
	Programming and parametrizing PC-software ServoLink	□	□	□	□
	Assembled feed cable	□	□	□	□
Fitted gear boxes	□	□	□	□	
RS232-Adapter	□	□	□	□	

\*\* Resolution see motor-data

# Without Fieldbus



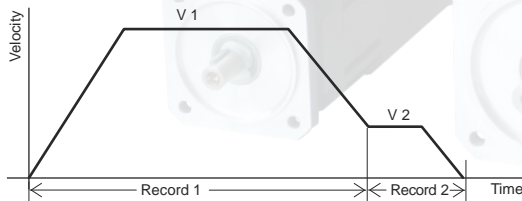
# With Fieldbus



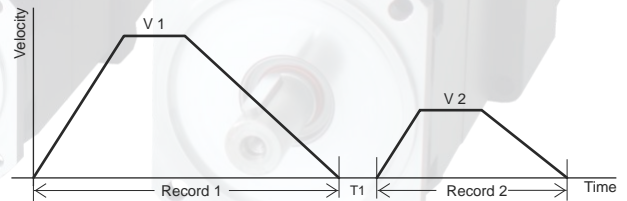
\*\*) Example connection; other I/O-Functions are assignable.

## Sample-Driveprofile:

On-the-fly record change

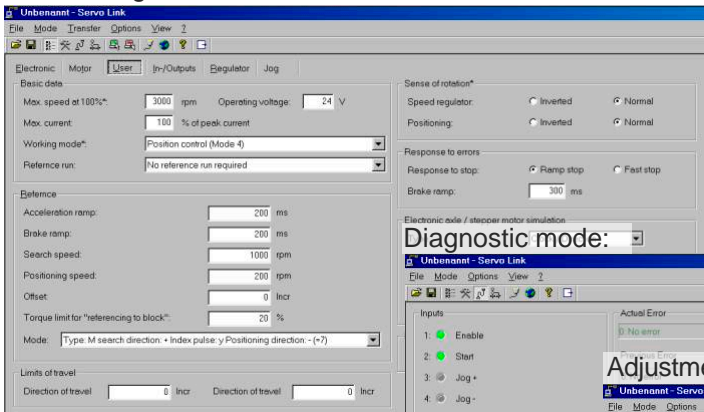


Record change with intermediate stop

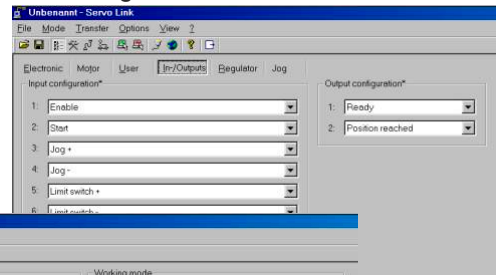


## PC-Software:

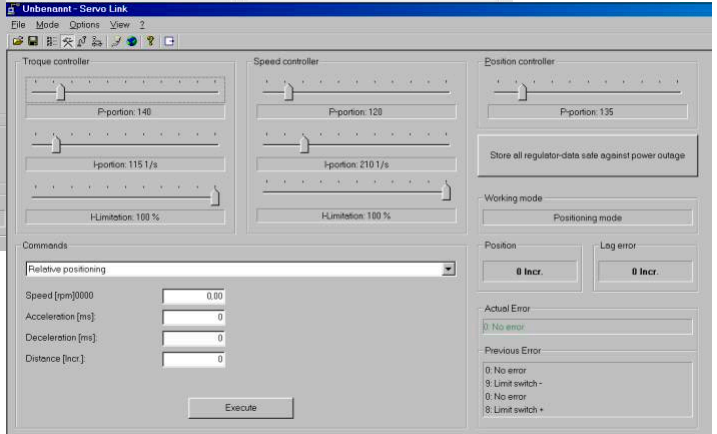
### User settings



### I/O-Configuration



### Adjustment of all regulator and motor parameters



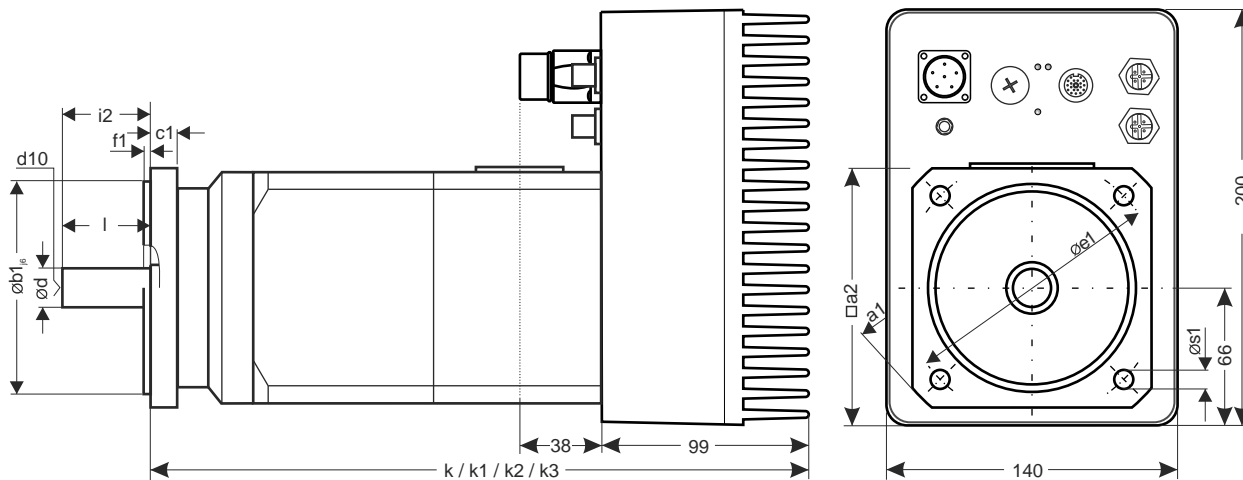
### Other features:

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

## Technical Data:

esiMot SL 400V	size	551/3	552/2	554/3	555/2
Motor power (S3, 25%)	[kW]	3,1	3,2	4,4	4,2
Rated power (S1)	[kW]	1,9	2,1	2,9	2,75
Rated speed	[min <sup>-1</sup> ]	3000	2000	3000	2000
Impulse torque < 5 s	[Nm]	28,0	42,0	39	56
Rated torque (S3, 25%)	[Nm]	10,0	15,2	14,2	20,0
Rated torque (S1)	[Nm]	6,5	10,0	9,3	13,2
Inertia	[10 <sup>-3</sup> kgm <sup>2</sup> ]	0,8	1,58	2,87	4,65
Rated current AC	[A]	6,0	6,1	8,6	8,1
Logic supply (0,3A)	[VDC]	24			
Axis resolution	[lpr]	4096			
Protection class (mounting specific)		IP 65		IP 54	
Weight ca.	[kg]	12,8	14,8	12,9	17,0

## Dimensions:

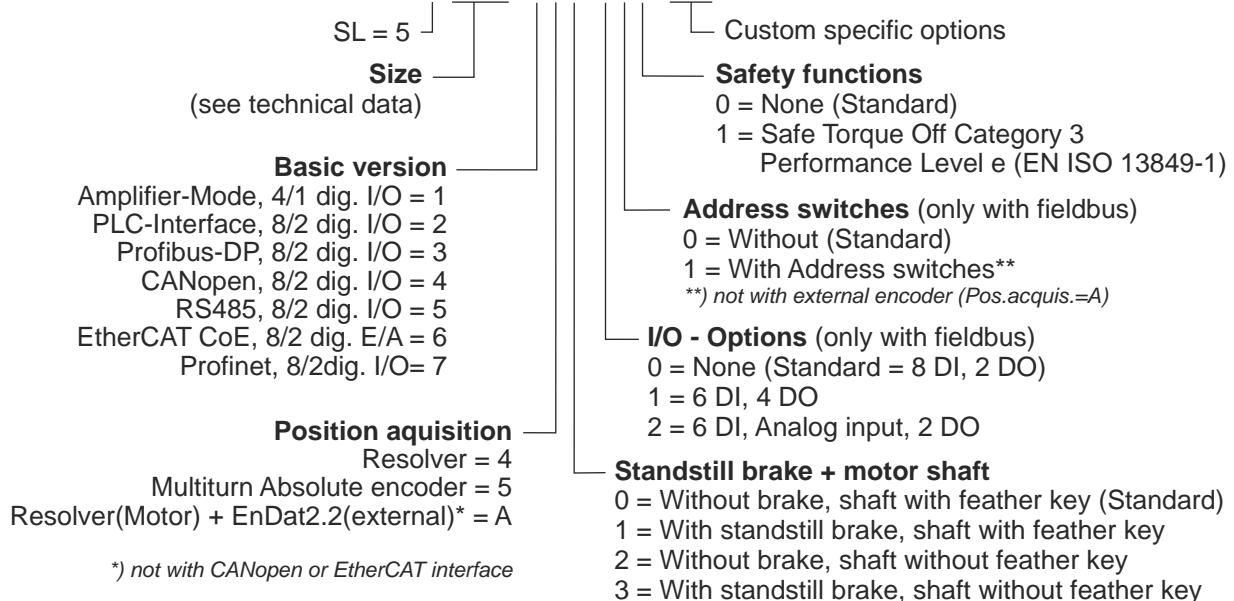


esiMot SL	a1	a2	b1 <sub>ø</sub>	c1	d	d10	e1	f1	i2	k	k1	k2	k3	l	s1
551/3	190	140	130	12	32	M12	165	3,5	58	263	322	309	369	58	11
552/2	190	140	130	12	32	M12	165	3,5	58	303	362	349	409	58	11
554/3	190	140	130	12	32	M12	165	3,5	58	242	298	274	330	58	11
555/2	190	140	130	16	32	M12	165	3,5	58	282	338	314	370	58	11

k = Resolver  
 k1 = Resolver + Brake  
 k2 = Absolute encoder  
 k3 = Absolute encoder + Brake

## Order code:

esiMot x xx/x.xxx.xxx.xxx



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

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