

# IM-4X10

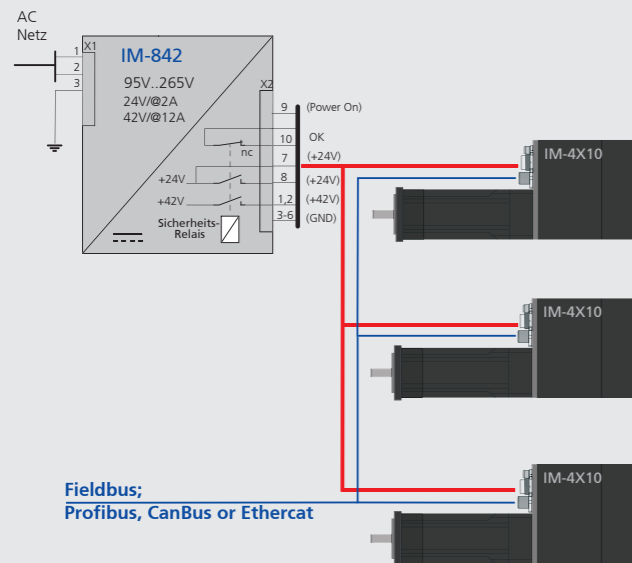
# IM-4X10 Servo drive 0,25 ... 0,74 Nm

## Option

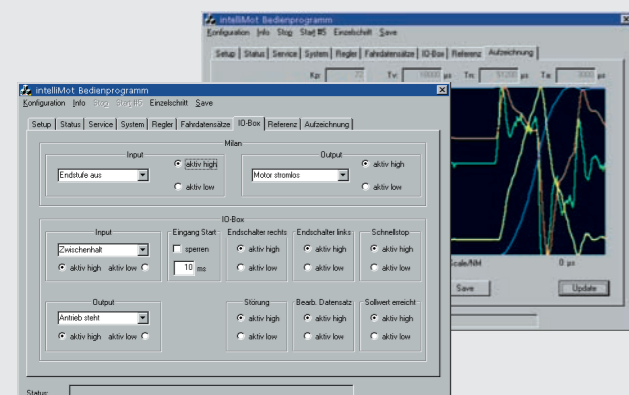
| Option     | IM-4X10                                  |
|------------|--|
| Supply     | 42 VDC * or 24 V AC                      |
| Encoder    | singleturn * or multiturn                |
| Fieldbus   | without*opt.Profibus, CanBus or Ethercat |
| IO         | local Bus or Sensor_IO *                 |
| Brake      | yes or no *                              |
| Protection | IP54 * oder IP67                         |

\*standard equipment with no extra charge

## Application



## Control software



## Servo drive series IM-4X10

The drives IM-4070, IM-4090 and IM4X10 can be obtained alternative with a 42 V supply and also as 24 V version, which have a resolution of 4096 increments per revolution. Each drive has three free programmable IO's. Optionally, you can replace them with a local IO bus system.

Each drive can be equipped with a field bus system. There is Can\_Bus DS402 or profibus available.

A holding brake with integrated management is procurable for every drive of the IM-4X10 series.

## Application IM-4X10 with supply IM-841

The IM-841 supply united the power management in the supply of the actuator, as well as the security relay to secure switching off of the actuator energy about a compulsive-controlled relay.

The integrated ballast module compensates for dynamic energy from the drives, or destroy it through an internal resistor.

Also a feature of the IM841 power supply is a contact for the safety system.

## IntelliTool

The supplied menu managed control software is designed for commissioning and test on the servo drive. It includes following features and benefits:

- Input, display and saving of parameters, drive records and status messages,
- Creation of working cycles
- Display of power and speed curves (Monitoring)

## Product information

### Servo drive series IM-4X10

The compact small voltage series of IM-4X10 is laid out for the S1 operating in 42 VDC or 24VDC voltage.

The power amplifier with integrated control electronics, power supply and EMC filters are integrated compactly in this servo drive series.

This provides technical and economical benefits in the standalone mode as well as in the decentralized field bus mode.

The commissioning is very fast because of the aligned electronics and drive components.

The application field of the IM-4X10 is for blocking and shifting duties in the automation like in packaging, handlings units etc. conceived.

The IM-4X10 servo drive can be equipped with a fieldbus system. By default, the service interface for the parameterization and the creation of simple processes is included. Optional, there is a local bus system for digital and analog I/O available.



## Performances

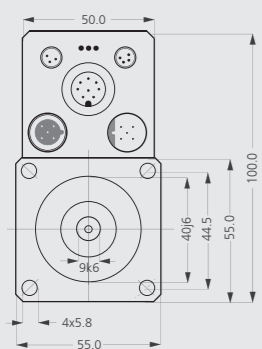
- Low voltage application for 100% S1 handling
- Supply 42 VDC, optional 24 V AC
- Torque from 0,25 Nm up to 0,74 Nm
- Temperature range from 0°C up to +50°C
- Electronical overload and temperature rise protection
- Busable for fieldbus Profibus and Can-Open
- Local I/O Bus for analog and digital I/O
- High reliability and durability
- Integrated speed, position- and torque mode
- Standby for Logicsupply
- IP54 case, convection
- Robust aluminium case
- Compactly dimension
- Optional brake with management
- Optional IP67

## Technical data

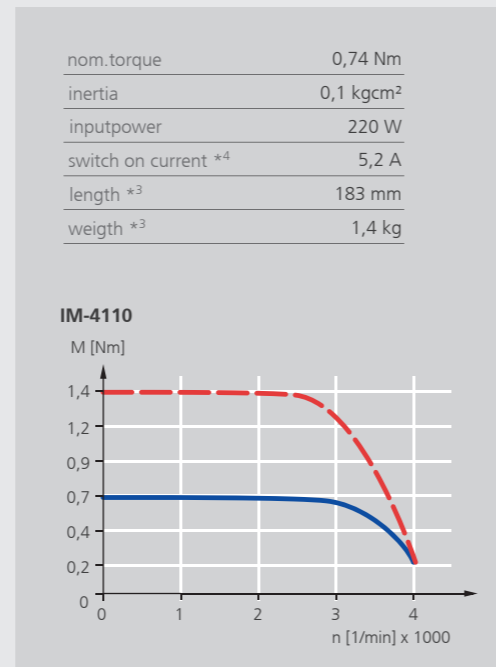
| general data          |  | IM - 4X10  |
|-----------------------|--|--|
| voltage               |  | 42V DC +15% -10% (Opt. 24V DC)                   |
| ambient temperature   |  | 0°C bis 50°C *1                                  |
| current consumption   |  | min. 80 mA                                       |
| solution              |  | 4096 increments per revolution                   |
| positioning           |  | ±2 <sup>19</sup> revolutions                     |
| nom.speed             |  | 3000 min <sup>-1</sup>                           |
| peaktorque            |  | 2,0 x nom. torque                                |
| handling              |  | S1 - ED = 100%*2                                 |
| specific data         |  |  |
| nom.torque            |  | 0,25 Nm .. 0,74 Nm                               |
| inertia               |  | 0,06 kgcm <sup>2</sup> .. 0,1 kgcm <sup>2</sup>  |
| inputpower            |  | 75 W .. 220 W                                    |
| switch on current     |  | 2,5A   |
| length *              |  | 133 mm .. 183 mm                                 |
| weigh *               |  | 1,0 kg .. 1,4 kg                                 |
| protection            |  | IP 54 ( Opt. IP 67 )                             |
| color                 |  | black RAL 9005                                   |
| program memory        |  | 100 driving set                                  |
| program memory        |  | RS232C up to 38,4 kBaud                          |
| option electrical     |  |  |
| local IO Bus          |  | for analog and digital input                     |
| digital IO            |  | three free program. I/O                          |
| fieldbus              |  | Profibus_DP, CAN_Open DSP 402                    |
| option mechanical     |  |  |
| brake (holding brake) |  | 24 VDC I=0,3A m=0,2 kg J=0,045 kgcm <sup>2</sup> |

subject to change without notice  
 \*1 derating up 70°C electronic temperature  
 \*2 performance at 20°C ambient temperature

## Mechanical dimension



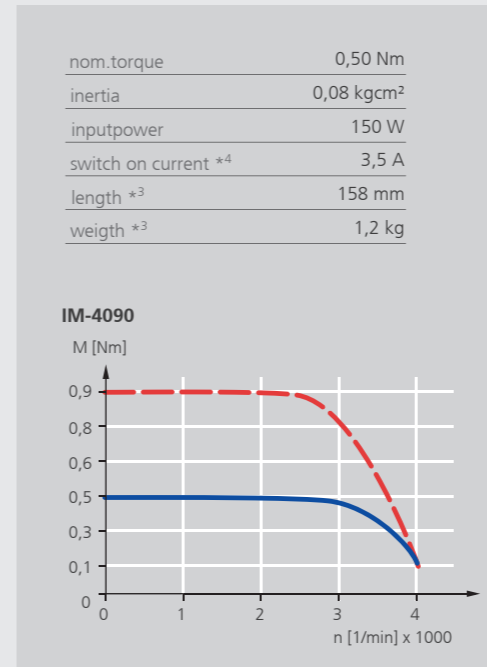
servo drive 0,74 Nm



--- peak-torque Mp  
 — nom-torque Mn



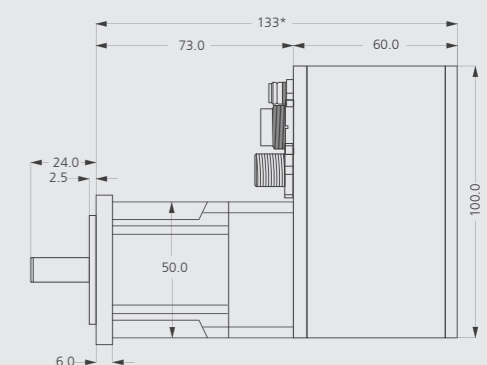
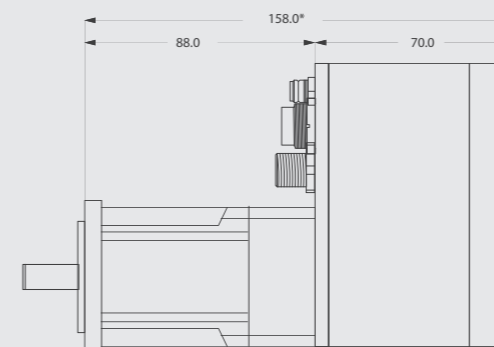
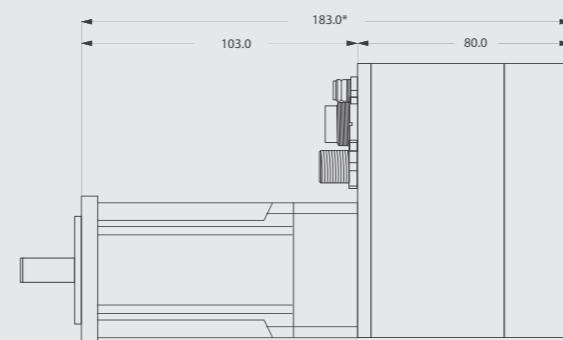
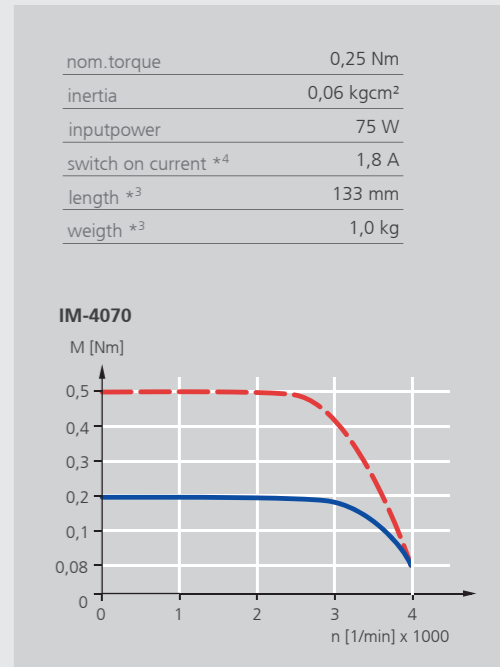
servo drive 0,50 Nm



\*3 with brake: length +44mm, weight +0,2 kg  
 multiencoder length +10 mm, weight +0,1 kg  
 \*4 with supply tension 42 VDC



servo drive 0,25 Nm

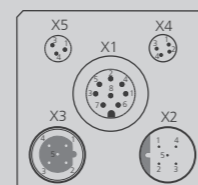


\* with brake: length + 38mm - with multiencoder: length +10 mm

# IM-4X10

## Connections

X1 = DC supply  
 X2 = fieldbus in  
 X3 = fieldbus out  
 X4 = option  
 X5 = serviceinterface



## Option

For the series IM-4X10 are the following options available.

**2X3** digital IO  
**1L1** local bus

**1P3** profibus DP  
**1C1** canbus DSP 402

**3A0** singleturnencoder  
**3A1** multiturnencoder

**6B40** brake IM-4070 / IM-4090  
**6B41** brake IM-4110

**2N4** 24V-Supply \*5

\*5 only in IM-4070 and IM-4090