DEPRAG
machines unlimited

SCREWDRIVER FUNCTION MODULE WITH ELECTRONIC STROKE (E-SFM)

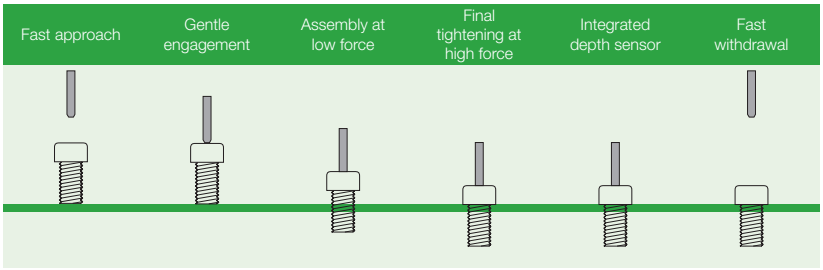
ADVANTAGES

Flexibility

The Screwdriver Function Module with electronic stroke (E-SFM) has been optimally designed to react flexibly to complex screwdriving tasks, new fasteners and varying assembly requirements.

Precise parameter control

- force
- speed
- position



Process reliability

Avoid applying unnecessary stress to your component by optimally adjusting force and speed in your screwdriving application. A gentle engagement process will extend the life of your bit.

Improved cycle time

Flexible positioning of the bit enables different processing steps to be combined with one another. This can improve the cycle time and increase the productivity of your application.

One system – many screwdriving directions

Whether downwards or upwards, horizontally or at a particular angle – the E-SFM can do the job without losing the fastener position.

Integrated depth sensor

The E-SFM can be flexibly programmed and is therefore suitable for various screw heights.

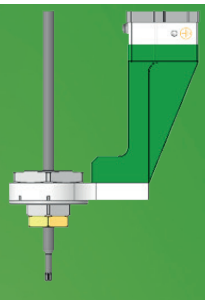
Suitable for lightweight robots

Due to its low weight, the E-SFM is ideal for use in applications in conjunction with lightweight robots.

E-SFM manager

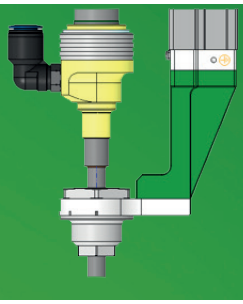
Simple parameterisation software in responsive design.

Versions



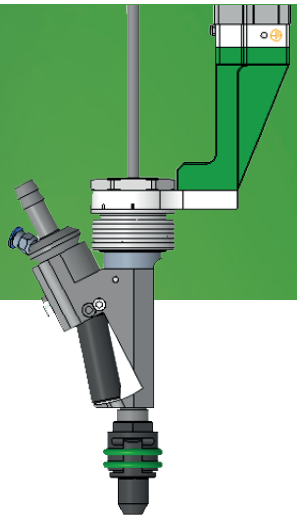
Without feeding

- if the fastener is pre-positioned



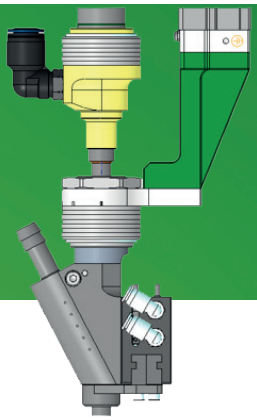
With Pick-and-Place

- if the fastener is fed using pick-and-place or via hose and precisely positioned using vacuum tube



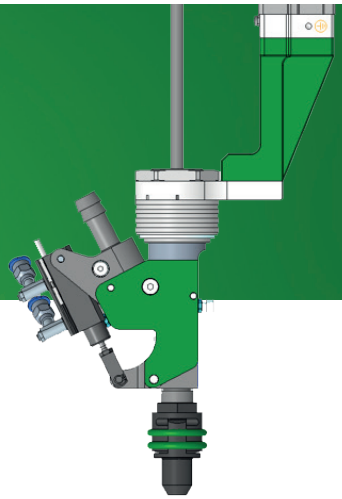
With feeding

- tiltable mouthpiece



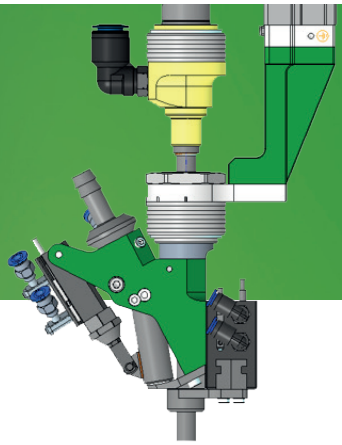
With feeding

- mouthpiece with active nosepiece jaws (MAS)



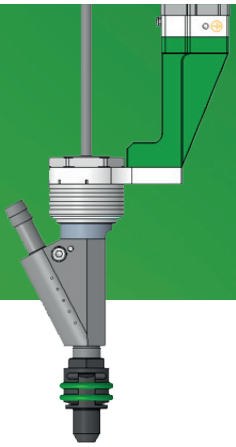
With feeding

- swivel mouthpiece



With feeding

- mouthpiece with active nosepiece jaws swivel (MASS)

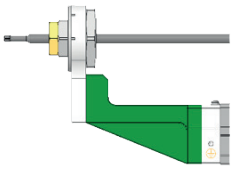


With feeding

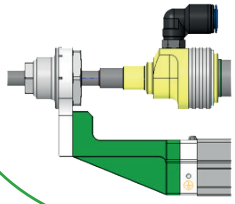
- rigid mouthpiece

Versions

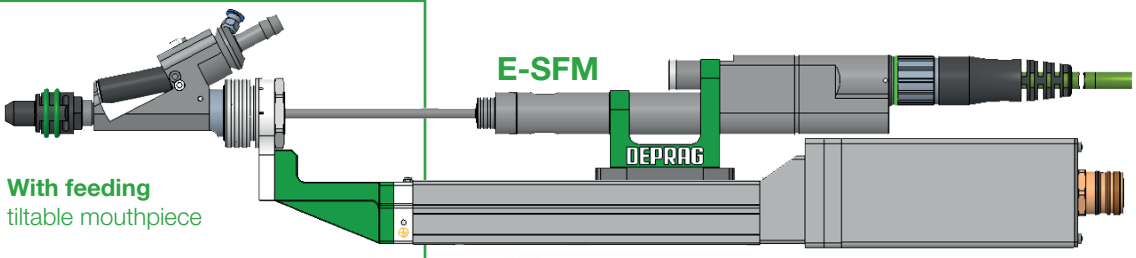
Without feeding



Pick-and-Place

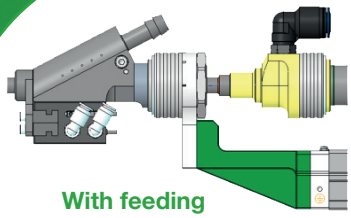


E-SFM

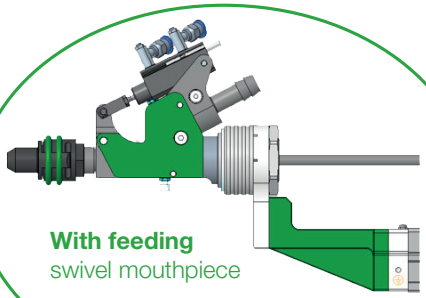


With feeding
tiltable mouthpiece

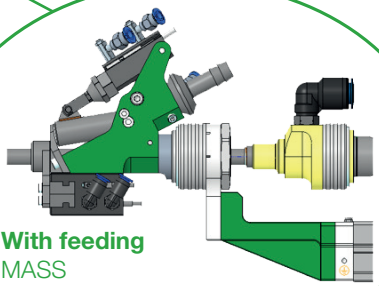
With feeding
MAS



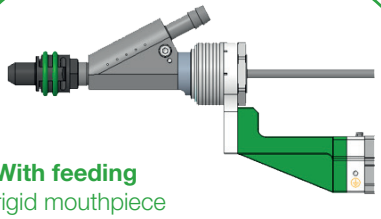
With feeding
swivel mouthpiece



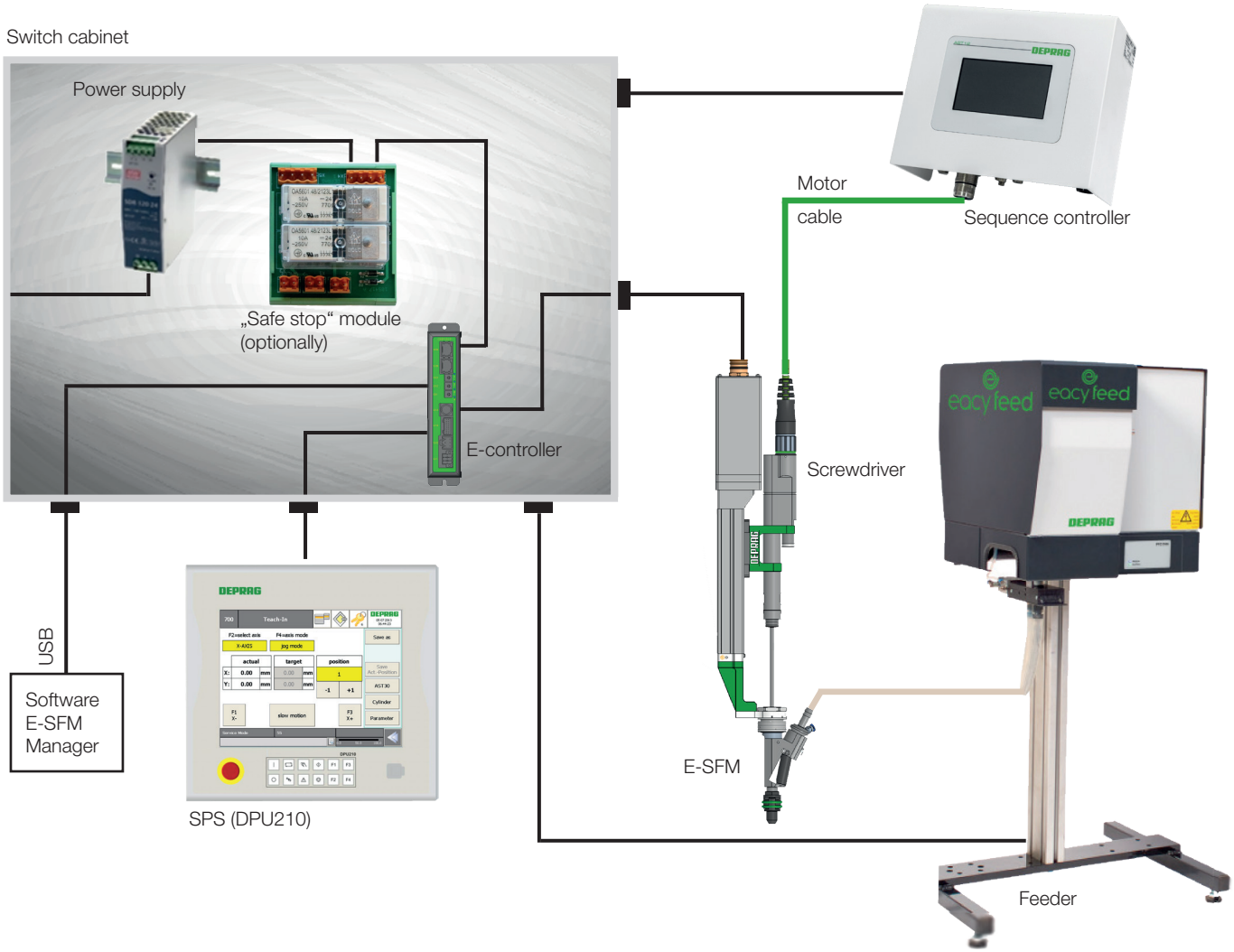
With feeding
MASS

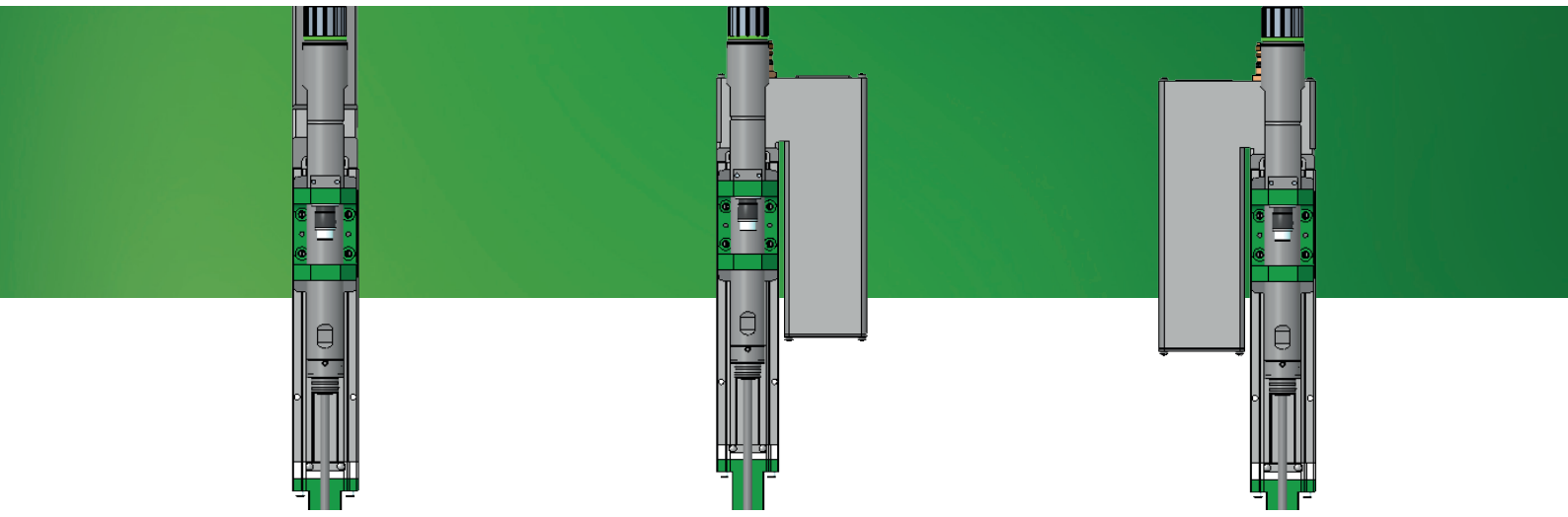


With feeding
rigid mouthpiece



Overview





Motor attachment axial

Motor attachment left

Motor attachment right

Technical data

Screwdriver Function Mudule with electronic stroke (E-SFM)			
Screw head-ø max.	mm	14	
Torque range	Nm	1 - 18	
Shaft-ø max.		M8	
Nut max.		M6	
Nosepiece length	mm	40/80	
Free stroke for vacuum	mm	50/100	
Installation position / working direction		any	
Linear axis			
Size		**16**	**25 High Performance**
Stroke	mm	100/150/200/250	
Motor attachment		axial/left/right	
Positioning accuracy	mm	± 0,02	
Speed max.	mm/s	700	1500
Pressure force [1] max.	N	45	190
Pressure force [1] min.	N	Self weight of moved mass	
Screwdriver size		19, 22	27, 36
Feed versions		Without feeding Pick-and-Place With feeding - rigid mouthpiece With feeding - tiltable mouthpiece With feeding - swivel mouthpiece With feeding - mouthpiece with active nosepiece jaws With feeding - mouthpiece with active nosepiece jaws swivel	

[1] The attainable pressure force is dependent on the installation position / working direction.

Required Accessories

Suitable for			size 16	size 25 High Performance
E-Control	E-SFM digital inputs/outputs	Part no.	119007A	219007A
E-Control	E-SFM EtherCAT	Part no.	119007B	219007B
E-Control	E-SFM Profinet	Part no.	119007C	219007C
E-Control	E-SFM EtherNet/IP	Part no.	119007D	219007D
E-Control	E-SFM IO-Link	Part no.	119007E	219007E
Motor cable	E-SFM length 5m	Part no.	165874	
Motor cable	E-SFM length 8m	Part no.	1658741	
Motor cable	E-SFM length 12m	Part no.	1658742	
Cable	Programming E-Control E-SFM	Part no.	171606	
Software	E-SFM Manager *	Part no.	192336	

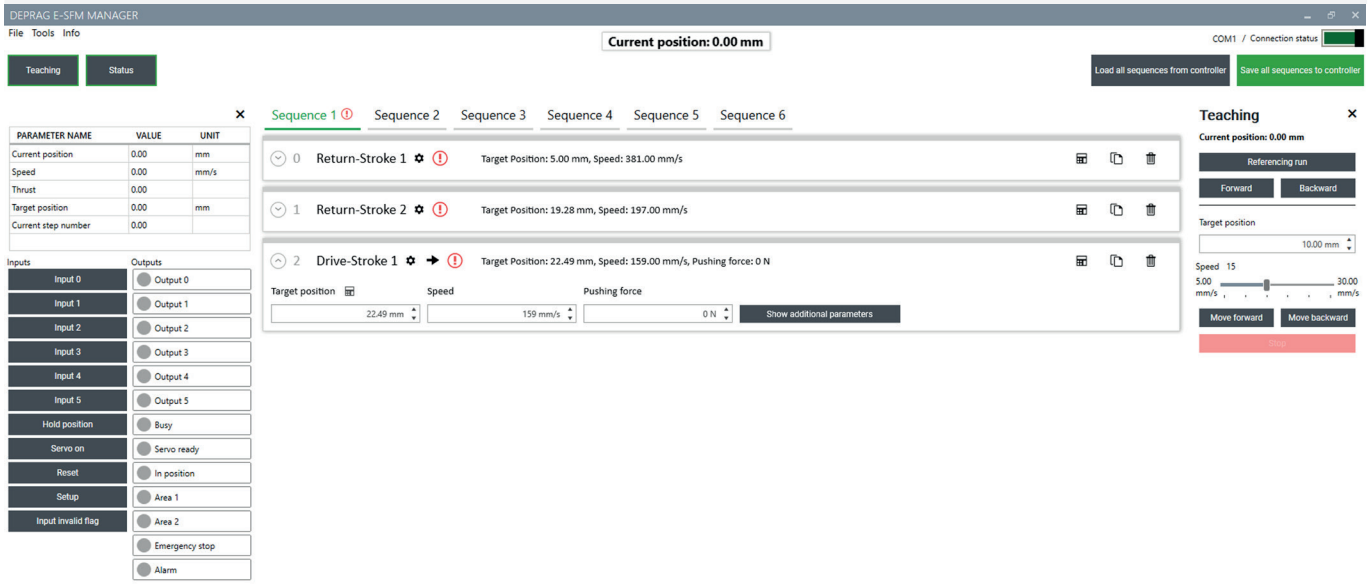
* The E-SFM Manager software is not mandatory for parameter transfer via field bus.

Accessories

Description - Software E-SFM Manager - material no. 192336

The E-SFM Manager is used for parameter adjustment of movement steps (sequences), as well as to save these on the E-Control.

The software download is available from the myDEPRAG customer portal (my.deprag.com). Registered users can activate the activation code and manage licences in MY ACCOUNT > DEPRAG Apps.



Optionally available software products

Software TIA Link (activation key)	Material no.	135839
Software TwinCAT Link (activation key)	Material no.	140996

Optional component for the installation into a switch cabinet - material no. 105452A

„Safe stop“ module

The “Safe stop” module disconnects the power supply to the linear axis. Power supply for the E-control remains unchanged. Disconnection is implemented with two channels with feedback contacts so that a performance level PL e in accordance with DIN EN ISO 13849-1 with a PFH [1/h] of 4.29E-8 is achieved.

DEPRAG

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