

Next to the screwdriver, the screwdriving controller is the most important component of an electronic screwdriving system. It controls the EC drive of the screwdriver according to the parameters of the screwdriving sequence, it evaluates measurement signals and provides all operating and documentation functions.

The available systems - EC and EC servo, both equipped with highly dynamic brushless servo motors, differ in the way they generate torque measurement values. Whilst the EC technology of the controllers AST5, AST6 and AST11 are based on the exact motor current measurement, in the EC servo system of the controller AST30 or AST40 the signals of the measurement transducer integrated into the tool are evaluated.



AST5

Screwdriving controller Type AST5 / AST5-S

- Torque range: 0.01 Nm - 2.0 Nm
- For MICROMAT-EC and MINIMAT-EC handheld screwdrivers (further details → D3490E)
- For MINIMAT-EC-Servo handheld screwdrivers (further details → D3496E)
- Number of multi-level screw sequences: 100
- Documentation options: internal storage, output via Ethernet (Datalogger, http)
- Operator friendly colour touch screen for direct entry of screw sequences and tightening parameters, graphic portrayal of screwdriving graphs



AST6

Screwdriving controller Type AST6 / ASTi6

- Small size to fit in manual work stations
- Torque range: 0.02 - 2.0 Nm
- For NANOMAT-EC and MICROMAT-EC screwdriver spindles (further details → D3165E)
- Number of multi-level screw sequences: 100
- Documentation options: internal storage, output via Ethernet (Datalogger, http)
- Operator friendly colour touch screen for direct entry of screw sequences and tightening parameters, graphic portrayal of screwdriving graphs
- Small size for confined spaces



ASTi6

ASTi6 without display, for installation into a switch cabinet

Screwdriving controller Type AST11

- Torque range: 0.03 - 25 Nm
- For MICROMAT-EC and MINIMAT-EC screwdrivers handheld and screwdriver spindles (further details → D3490E or D3165E)
- Number of multi-level screw sequences: 16
- Documentation options: internal storage, output via Ethernet (Datalogger, http), adjustable printer interface
- PLC interface: inputs/outputs
- Integrated RS232 port with varied options:
 - 4 fieldbuses available: Profibus, Profinet, EtherCat, EthernetIP
 - direct connection of a barcode scanner
 - connection of a serial printer



AST11

Screwdriving controller Type AST30-31

- Torque range: 7 - 120 Nm
- For MINIMAT-EC-SERVO screwdrivers handheld, angle-head design (further details → D3497E)
- Number of multi-level screw sequences: 32
- Documentation options: internal storage, output via RS232 or Ethernet (Datalogger), printer interface
- PLC interface: input/output, Profibus



AST30

Screwdriving controller Type AST40 / ASTi40

- Torque range: 0.2 - 500 Nm
- For MINIMAT-EC-SERVO screwdriver spindles (further details → D3161E)
- Number of multi-level screw sequences: 120 (via input/output interface)
- Documentation options: internal storage, output via RS232 or Ethernet (Datalogger), printer interface
- PLC interface: input/output, Profibus, Profinet, EtherCAT, EthernetIP



AST40

ASTi40 without display, for installation into a switch cabinet



ASTi40

Function control - fc

The function control increases the processing reliability of manual screwdriving assembly. It enables monitoring of every single screw assembly and guarantees the success of the screw connection on the component.



fc11

Screwdriver controller fc11

The screwdriving function controller fc11 and the handheld screwdriver MICROMAT-F/MINIMAT-F provide the intelligent solution for your processing reliability. The screw system counts your assemblies, monitors their times, shuts-off only upon reaching torque, recognises work piece exchange and is 100 % self-checking.



fc20

Screwdriver controller fc20

The functions control fc20 also enables the monitoring of complex assembly processes through programmable sequences. This screwdriver controller can control up to three screwdrivers of differing types. The use of the fc20 allows you high flexibility for various screwdriving requirements on one component.

FEEDING SYSTEMS

Vibratory Bowl Feeders

11011-0.15
11011-0.75
11011-1.2



11011-2.5



Sword Feeders



1811-1.5-x



ERGOMAT-Z



DEPRAG FEED MODULE



Vibratory Bowl Feeders and Sword Feeders for handheld Drivers and Press-In Tools

Type	Number of screw-drivers	Filling capacity l	max. Head dia. mm	max. Shaft length mm	Shaft dia. from - to mm	Power source AC
11011-0.15	1	0.15	5	8	1.2 - 2.5	24 Volt DC
11022-0.15	2	0.15	4	8	1.2 - 2.5	
11011-0.75	1	0.75	12	35	1.5 - 6.3	
11022-0.75	2	0.75	8	25	2 - 6.3	
11011-1.2	1	1.2	12	50	3 - 7	
11011-2.5	1	2.5	16	60	4 - 10	
11022-2.5	2	2.5	14	60	4 - 10	230 V/115 V
1811-ES/0.15-x	1	0.15	5	8	1 - 2.5	
1811-1.5-x	1	1.5	12	25	2 - 6.3	

ERGOMAT-Z the stroke screwdriver for feeding machines

Type	Part no.	Torque		Speed, idling rpm	Drive	Screws	Weight kilos
		min. Nm	max. Nm				
347V-218	406859A	0.3	1	1900	1/4"	M 3	0.8
347V-318	406859B	0.3	1.4	1300		M 3	0.8
347V-518	406859C	0.2	2	900		M 3	0.8
347V-718	406859G	0.2	2.5	640		M 4	0.8

Performance data relate to an air pressure of 6.3 bar (90 psi)

DEPRAG FEED MODULE - DFM

DEPRAG FEED MODULE (DFM) version 1 1 stroke, screw assembly via nosepiece, stroke 60mm, max. vertical pressure 120N

DEPRAG FEED MODULE (DFM) version 2 2 strokes, vacuum-supported screw/nut assembly, stroke 60mm, max. vertical pressure 120N

Please find more informations about the DEPRAG FEED MODULE in our brochure D3820E.