

## MINIMAT-EC-Servo Screwdriver Spindles

Type	Part no.	Torque		Speed		Drive	Weight kilos
		min. Nm	max. Nm	min. rpm	max. rpm		
EC-Screwdrivers with Torque- and Angle Transducer (hex. female)							
311E27-0010	413400A	0.2	1	100	1600	1/4"	1.2
311E27-0020	413400B	0.4	2	60	1500		1.2
311E27-0050	413400C	1	5	40	800		1.2
311E27-0120	413400E	2.4	12	20	400		1.2
311E36-0150	205000A	3	15	50	1000	7/16"	2.8
311E36-0300	205000C	6	30	30	600		2.8
311E36-0500	205000D	10	50	20	380		2.8
311E42-0300	206000B	6	30	50	890		4.2
311E42-0800	206000D	16	80	20	330		4.2
311E63-1800	416400D	36	180	15	300	3/4"	12.9
311E63-3500	416400F	70	350	10	155		12.9
311E63-5000	416400H	100	500	10	90		12.9

The screwdriver spindles of the series 311E... can be supplied with a redundant measuring system for torque and angle. Technical details are available in our catalog D3161E.

## NANOMAT-EC / MICROMAT-EC / MINIMAT-EC Screwdriver Spindles

Type	Part no.	Torque		Speed		Drive
		min. Nm	max.*) Nm	min. rpm	max.*) rpm	
EC-Screwdrivers (hex. female)						
320E12-00012	420400B	0.02	0.12	120	1500	3 mm
320E19-0002	405024A	0.03	0.2	150	1500	
320E19-0005	405024C	0.08	0.5	120	1200	
320E19-0008	405024B	0.15	0.8	100	1000	1/4"
320E22-00120	420988D	0.24	1.2	50	900	
320E22-00200	420988E	0.4	2.0	30	550	3 mm
320E27-0010-D	416500B	0.15	1.0	50	1000	
320E27-0018-D	416500H	0.4	1.8	100	1000	1/4"
320E27-0024-D	416500C	0.4	2.4	50	700	
320E27-0042-D	416500D	0.7	4.2	40	400	
320E36-0040-D	416600E	0.5	4	100	1000	
320E36-0060-D	416600A	1	6	70	740	
320E36-0090-D	416600F	2	9	50	550	
320E36-0120-D	416600B	2	12	35	380	
320E36-0180-D	416600C	3	18	25	280	

\*) as per VDI/VDE 2647 Directive

## MINIMAT-E Screwdriver Spindles

Type	Part no.	Torque		Speed rpm	Drive
		min. Nm	max. Nm		
Screwdrivers with mechanical shut-off clutch, stationary (hex. female), push-to-start					
342EA36-0009-200	304001A	0.3	0.9	2000	1/4"
342EA36-0009-100	304001B			1000	
342EA36-0009-65	304001C			650	
342EA36-0024-100	304002A	0.4	2.4	1000	
342EA36-0024-65	304002B			650	
342EA36-0036-65	304003A	0.5	3.6	650	
342EA36-0018-200	304004A	0.5	1.8	2000	
342EA36-0018-100	304004B	0.4		1000	
342EA36-0018-65	304004C	0.3		650	
342EA36-0048-100	304005A	0.4		1000	
342EA36-0048-65	304005B	0.3	4.8	650	

All MINIMAT-E Screwdriver Spindles are also available with remote-start operation.



311E 27-...



311E 36-...



320E12-0012



320E19-...



320E22-...



320E27-...



320E36-...



342EA36-...

## Required Accessories for:

NANOMAT-EC / MICROMAT-EC / MINIMAT-EC and MINIMAT-EC Servo screwdriver spindles: Controller → Page 18/19 of this catalogue

## MINIMAT-ED Digital Electric Screwdriver Spindles

Type	Part no.	Torque, Nm		Speed, rpm		Drive
		min.	max.	min.	max.	
straight, (hex. female)						
330E36-0012	450000A	0.24	1.2	150	1500	1/4"
330E36-0018	450000B	0.36	1.8	150	1500	
330E36-0032	450000E	0.64	3.2	120	1200	
330E36-0048	450000C	1.0	4.8	90	900	



**Required accessories for Digital screwdriver spindles:** Motor cable, power supply, interface and software.  
For technical details see brochure D3195E.

## MEASURING TECHNOLOGY

### Measuring Instruments for manual use

Designation	Type	Measuring range	Electric	Remark
Measuring electronic	ME5000	see transducer	Rechargeable Battery with Docking Station Battery charger	Value Display
Measuring electronic	ME5400 ME6000 ME6100	see transducer	Power Unit 100 up to 240 Volt (50 or 60 Hz)	Value Display external standard PC-Monitor
Measuring electronic	ME5600	see transducer	Power Supply 85 up to 264 Volt (50 or 60 Hz)	Value Display LC-Display graphic Touch Screen



Measuring electronic ME 5000 with Docking Station

ME5400  
ME6000  
ME6100



ME5600

### Torque-Transducers for measuring instruments

Designation	Type	Part no.	Measuring range Nm
Piezo-electric (PE) transducers			
Torque-Dynamometer	MP1PE	408000C	0.1 - 1
	MP25PE	360850A	2.5 - 25
	MP200PE	373205A	20 - 200
	MP1000PE	408000A	50 - 500
Torque-Wrench	MS25PE-W	346217A	2.5 - 25
	MS25PE-WS	346217C	2.5 - 25



Torque-Dynamometer

### Strain gage (DMS) transducers

Torque-Dynamometer	MP2DMS	385200B	0.2 - 2
	MP7DMS	385200A	1.05 - 7
	MP25DMS	385200C	2.5 - 25
	MP160DMS	385200D	16 - 160
	MP500DMS	408088A	50 - 500
Torque-Wrench	MS2DMS	387798B	0.2 - 2
	MS7DMS	387798A	1.05 - 7
	MS7DMS-W	388050A	1.05 - 7
	MS25DMS-W	388050C	2.5 - 25



Torque-Wrench

### Offset torque transducers

Torque transducer	V002-E6.3/F6.3	385481B	0.2 to 2 (pos./neg.)
	V005-E6.3/F6.3	385481C	0.5 to 5 (pos./neg.)
	V010-E6.3/F6.3	385481D	1 to 10 (pos./neg.)
	V020-E6.3/F6.3	385481E	2 to 20 (pos./neg.)



Offset Torque transducer

### Mechanical Torque-Wrenches with manual indicator

Part no.	Measuring range Nm	Increment Nm	Drive (square male)
804686	0 - 3.4	0.1	1/4"
804687	0 - 8.4	0.2	1/4"
804688	0 - 17	0.5	3/8"
804689	0 - 60	1	3/8"



Mechanical Torque Wrench