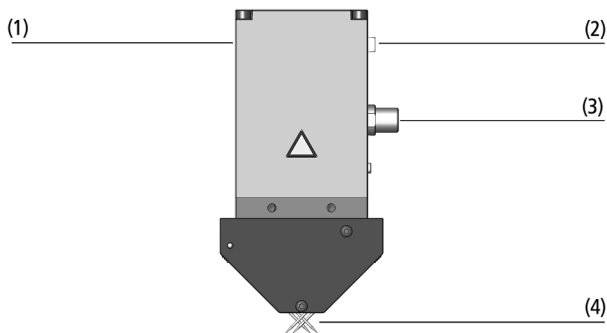


# Electric Needle Grippers SNGi-AE

Needle stroke max. 3 mm to max. 20 mm (variable)



Electric Needle Grippers SNGi-AE



System Design Electric Needle Grippers SNGi-AE



Needle grippers SNGi-AE being used for handling composite textiles

## Suitability for Industry Specific Applications

### Applications

- Needle gripper for handling non-rigid and highly porous materials (primarily textiles)
- Handling materials that are difficult to grip using vacuum such as composite textiles, fleece, filter materials, insulation and foam materials etc.
- Flexible handling of materials with changing stacking height due to free selectable stroke adjustment

### Design

- Electrically driven gripper
- High-strength housing with lightweight design (1)
- Three sizes with needle strokes of max. 3 mm, 10 mm or 20 mm
- Ten needles (4) with diameters of 0.8 mm or 1.2 mm (depending on the model)
- Insertion angle of 30° or 45° (depending on the model)
- LED status display (2); IO-Link interface with M12 plug connection, 5-pin (3)

### Product Highlights

- Gripping with crossing needles ideal for very unstable and small workpieces
- Needle stroke can be individually adapted to the workpiece by means of process profiles; comprehensive process monitoring and control
- Single layer handling and restacking possible with only one gripper, as stroke can be individually adjusted for each cycle
- Blow off function enables fast and reliable depositing with shortest cycle times

# Electric Needle Grippers SNGi-AE

Needle stroke max. 3 mm to max. 20 mm (variable)

## Designation Code Electric Needle Grippers SNGi-AE

SNGi-AE	-	10	-	0.8	-	V	-	3	-	IOL
1		2		3		4		5		6

### 1 – Abbreviated designation

Code	Version
SNGi-AE	Crossed needles

### 2 – Number of needles

Code	Number
10	10

### 3 – Needle diameter

Code	Diameter in mm
0.8...1.2	ø 0.8 and 1.2

### 4 – Product addition

Code	Type
V	Variable needle stroke

### 5 – Needle stroke

Code	Stroke in mm
3...20	3 to 20

### 6 – Product addition

Code	Type
IOL	IO-Link compatible






Needle gripper SNGi-AE is delivered assembled. The product consists of:

- Gripper of type SNGi-AE – available with various needle diameters and strokes

Available spare parts: needle modules, maintenance cover

Available accessories: mounting plate, holder system, connection cable, connection distributor

## Ordering Data Electric Needle Grippers SNGi-AE

Type	Part no.
SNGi-AE 10 0.8 V 3 IOL	10.01.29.00390 
SNGi-AE 10 0.8 V 10 IOL	10.01.29.00392 
SNGi-AE 10 1.2 V 3 IOL	10.01.29.00394 
SNGi-AE 10 1.2 V 10 IOL	10.01.29.00396 
SNGi-AE 10 1.2 V 20 IOL	10.01.29.00393 

## Ordering Data Spare Parts Electric Needle Grippers SNGi-AE

Type	Spare Parts*		Part no.
SNGi-AE 10 0.8 V 3 IOL	Needle module	ERS SNG-AP/AE 10 0.8 3	10.01.29.00405
SNGi-AE 10 0.8 V 10 IOL	Needle module	ERS SNG-AP/AE 10 0.8 10	10.01.29.00407
SNGi-AE 10 1.2 V 3 IOL	Needle module	ERS SNG-AP/AE 10 1.2 3	10.01.29.00406
SNGi-AE 10 1.2 V 10 IOL	Needle module	ERS SNG-AP/AE 10 1.2 10	10.01.29.00408
SNGi-AE 10 1.2 V 20 IOL	Needle module	ERS SNG-AP/AE 10 1.2 20	10.01.29.00409

\*Set of two needle housings with needles

Type	Spare Parts*		Part no.
SNGi-AE 10 0.8 V 3 IOL	Maintenance cover	ERS SNG-AP/AE 3	10.01.29.00419
SNGi-AE 10 0.8 V 10 IOL	Maintenance cover	ERS SNG-AP/AE 10	10.01.29.00420
SNGi-AE 10 1.2 V 3 IOL	Maintenance cover	ERS SNG-AP/AE 3	10.01.29.00419
SNGi-AE 10 1.2 V 10 IOL	Maintenance cover	ERS SNG-AP/AE 10	10.01.29.00420
SNGi-AE 10 1.2 V 20 IOL	Maintenance cover	ERS SNG-AP/AE 20	10.01.29.00421

\*Set of 2 coverages

## Electric Needle Grippers SNGi-AE

Needle stroke max. 3 mm to max. 20 mm (variable)

### Ordering Data Accessories Electric Needle Grippers SNGi-AE

Type		Part no.
Holder system HTS-A2	HTS-A2 SNG AP/AE OP	10.01.29.00622
Holder system HTS-A3	HTS-A3 SNG AP/AE OP	10.01.29.00619
Mounting plate	BEF-PL 38x15x11.5 G1/4-IG SNG	10.01.29.00403
Connection distributor 1x M12, 5 pol, 2x M12, 4 pol	ASV IO-L-A B-M12-5 2xS-M12-4	10.02.02.04336
Connection cable, M12 5-pole, M12 5-pole, 1 m, PUR, straight	ASK B-M12-5 1000 S-M12-5	21.04.05.00158
Connection cable, M12 5-pole, M12 5-pole, 2 m, PUR, straight	ASK B-M12-5 2000 S-M12-5	21.04.05.00211
Connection cable, M12 5-pole, 5 m, PUR, straight	ASK B-M12-5 5000 K-5P	21.04.05.00080

### Technical Data Electric Needle Grippers SNGi-AE

Type	Number of needles	Needle diameter [mm]	Needle stroke Z(NA) [mm]*	Operating temperature [°C]	Electrical connection	Weight [g]	Protection type IP	Voltage [V]	Current consumption [mA]**
SNGi-AE 10 0.8 V 3 IOL	10	0.8	3	5 ... 50 °C	Male connect M12, 5 pol	500	IP 53	24V - DC	900
SNGi-AE 10 0.8 V 10 IOL	10	0.8	10	5 ... 50 °C	Male connect M12, 5 pol	515	IP 53	24V - DC	900
SNGi-AE 10 1.2 V 3 IOL	10	1.2	3	5 ... 50 °C	Male connect M12, 5 pol	500	IP 53	24V - DC	900
SNGi-AE 10 1.2 V 10 IOL	10	1.2	10	5 ... 50 °C	Male connect M12, 5 pol	515	IP 53	24V - DC	900
SNGi-AE 10 1.2 V 20 IOL	10	1.2	20	5 ... 50 °C	Male connect M12, 5 pol	600	IP 53	24V - DC	900

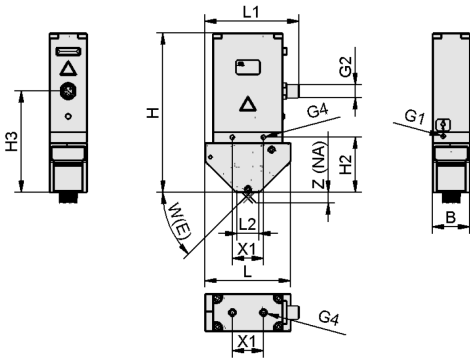
\*Needle speed approx. 8 mm/s per stroke

\*\*Max. power consumption during normal operation 600 mA

# Electric Needle Grippers SNGi-AE

Needle stroke max. 3 mm to max. 20 mm (variable)

## Design Data Electric Needle Grippers SNGi-AE



SNGi-AE

## Electric Needle Grippers SNGi-AE

Needle stroke max. 3 mm to max. 20 mm (variable)

### Design Data Electric Needle Grippers SNGi-AE

Type	B [mm]	G1	G2	G4	H [mm]	H2 [mm]	H3 [mm]	L [mm]	L1 [mm]	L2 [mm]	W(E) [°]	X1 [mm]	Z(NA) [mm]
SNGi-AE 10 0.8 V 3 IOL	35	M5-F	M12x1-M	M5-F	140.2	41.7	86.2	65	80.0	28	30	29	3
SNGi-AE 10 0.8 V 10 IOL	35	M5-F	M12x1-M	M5-F	151.5	51.5	94.5	80	87.5	22	45	29	10
SNGi-AE 10 1.2 V 3 IOL	35	M5-F	M12x1-M	M5-F	140.2	41.7	86.2	65	80.0	28	30	29	3
SNGi-AE 10 1.2 V 10 IOL	35	M5-F	M12x1-M	M5-F	151.5	51.5	94.5	80	87.5	22	45	29	10
SNGi-AE 10 1.2 V 20 IOL	35	M5-F	M12x1-M	M5-F	178.0	78.2	121.0	120	107.5	22	45	29	20