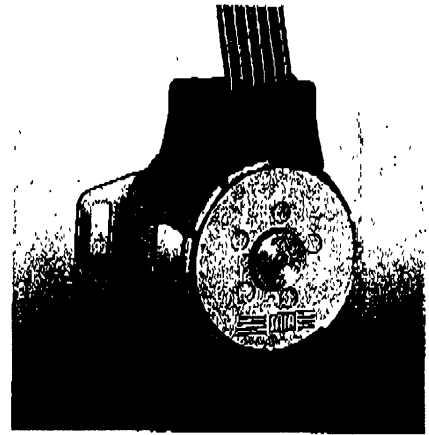


# SAIA® Stepper motors Series UAG 1/2, 18°



## Technical data

### Mechanical data

Step angle $\alpha$	18°	
Steps per revolution z	20	
Holding torque at $P_n$ (100% duty cycle)	UAG1: 5.7 mNm	UAG2: 4.2 mNm
Direction of rotation	reversible	
Axial force	max. 1 N	
Lateral force (max. 6 mm from motor)	max. 2 N	
Rotor inertia $J_R$	0.3 gcm <sup>2</sup>	
Rotor spindle	steel; hardened, ground and polished	
Rotor spindle bearings	sintered bronze; self-lubricating	

### Electrical data

Bipolar-operation UAG1	2-phase stepper motor		
Number of windings	2		
Resistance per winding (for 100% duty cycle)	27 $\Omega$	150 $\Omega$	675 $\Omega$
Rated voltage $U_n$	6 V	12 V	24 V
Power consumption per phase	0.75 W	0.74 W	0.75 W

Unipolar-operation UAG2	4-phase stepper motor		
Number of windings	4		
Resistance per winding (for 100% duty cycle)	35 $\Omega$	170 $\Omega$	700 $\Omega$
Rated voltage $U_n$	6 V	12 V	24 V
Power consumption per phase	0.78 W	0.74 W	0.77 W
Voltage test to earth	500 V, 50 Hz, 1 min		

### Thermal data

Thermal resistance at $f = 0$ Hz	approx. 40K/W
Time constant	approx. 8 min
Cycle time for <100% duty cycle	max. 5 min
Winding temperature	max. 130°C
Ambient temperature	Operation: -40°C to +85°C Storage: -40°C to +100°C

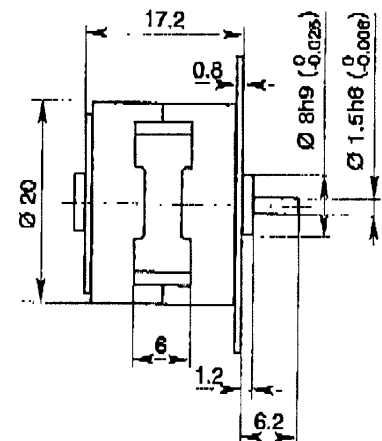
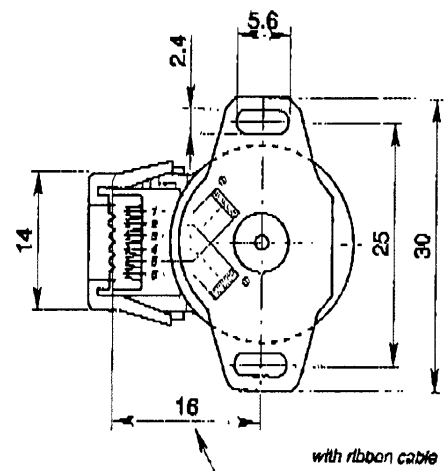
### General data

Mounting	any position, with screw plate
Connections	insulation displacement connection for ribbon cables AWG 28 <sup>1)</sup>
Weight	approx. 25 g
External dimensions	$\varnothing 20 \times 17.20$ mm

1) Ribbon cables (length: 100 mm) are only supplied when specially ordered.

## Dimension drawings

Mounting with screw plate



## Example of ordering

<b>UAG</b>	Motor type
<b>1</b>	1: 2-phase stepper motor
<b>2</b>	2: 4-phase stepper motor
<b>3</b>	Mounting with screw plate, rotor shaft $\varnothing 1.5$ mm
<b>150 <math>\Omega</math></b>	Resistance per winding
<b>N</b>	N: Standard connection (without a ribbon cable)
<b>C</b>	C: Connection with a ribbon cable (100 mm) and AMP Micro MaTch connector (D-215083-8)

318-5000

2-phase stepper motor

# UAG 1

4-phase stepper motor

# UAG 2

