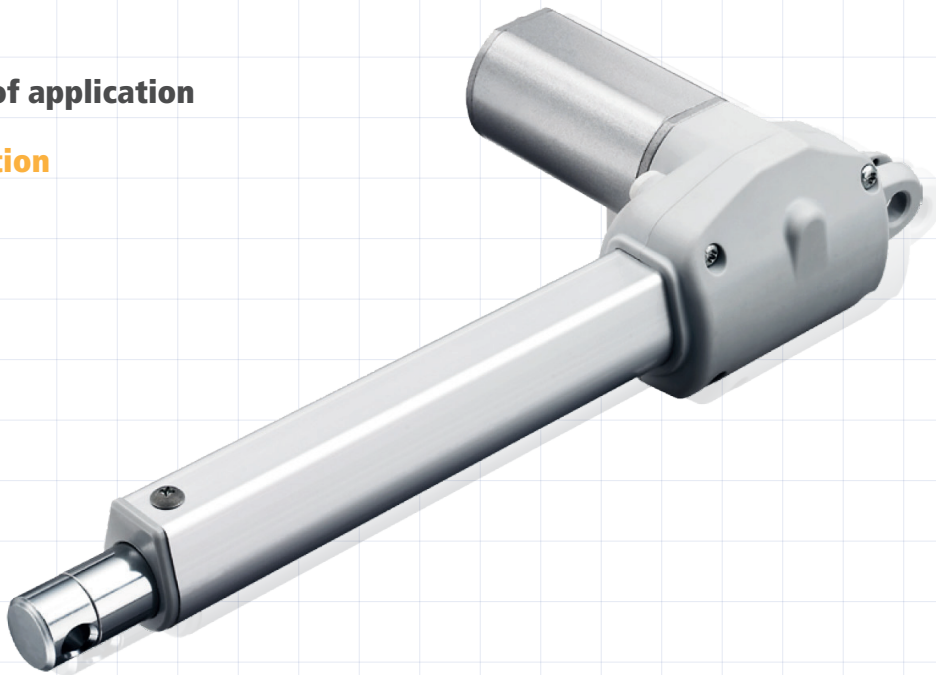


Electric actuator TA9

Typical areas of application

- Comfort motion
- Ergo motion



The TA9 series linear actuator was designed as an economical, compact solution specifically for the furniture industry where force cannot be sacrificed. This linear actuator is designed with a gear box, molded with a specially formulated plastic material which allows the TA9 to support load ratings up to 2500N.

Key figures

• Voltage of motor	12 V DC or 24 V DC
• Max. load	2500 N in push / 1000 N in pull
• Max. speed at full load	24.5 mm/s (with 300 N in a push or pull condition)
• Min. installation dimension	stroke+140 mm
• Color	black or grey
• IP rating	up to IP66
• Standards, directives	EMC
• Operational temperature range	+5 °C ~ +45 °C
• Option	Hall sensor(s)

... where force cannot be sacrificed.

Load and speed

CODE	Load		Self locking force 1)	Typical current 2) with load 24 VDC [A]	Typical speed 2)	
	push [N]	pull (N)			no load (32 VDC) [mm/s]	full load (24 VDC) [mm/s]
Motor speed 4100 min⁻¹						
A	2000	1000	2000	2.8	9.8	4.8
B	1500	1000	800	2.8	13.6	6.4
C	1000	1000	300	3.2	26.0	10.9
D	800	800	200	3.5	37.0	15.3
F	500	500	100	3.5	58.0	24.0
Motor speed 3800 min⁻¹						
G	2500	1000	2500	2.8	9.5	5.0
H	2000	1000	1000	3.0	13.3	7.0
I	1500	1000	500	4.0	26.2	11.0
K	1000	1000	250	4.0	36.5	16.0
L	700	700	150	4.0	57.0	24.0
Motor speed 3300 min⁻¹						
M	1500	1000	1500	1.8	8.0	4.0
N	1000	1000	800	1.8	11.2	5.9
O	500	500	300	1.4	21.6	11.3
P	400	400	200	1.4	30.0	15.7
Q	300	300	100	1.4	47.0	24.5
Motor speed 2200 min⁻¹						
V	2000	1000	2000	1.5	5.7	2.6
R	1500	1000	1000	1.5	8.2	3.7
S	1000	1000	500	1.5	15.4	6.0
T	700	500	250	1.3	22.8	10.0
U	500	300	150	1.3	36.0	16.0

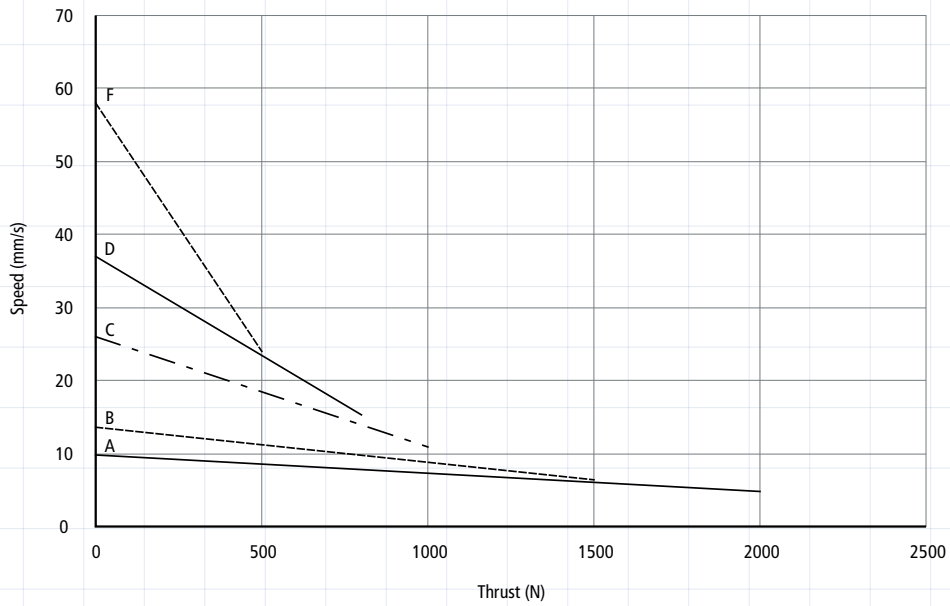
Note

- 1) This self-locking force level is reached only when a short circuit is applied on the terminals of the motor.
All the control boxes have this feature built-in.
- 2) With a 12 V motor, the current is approximately twice the current measured in 24 V; speed will be similar for both voltages.

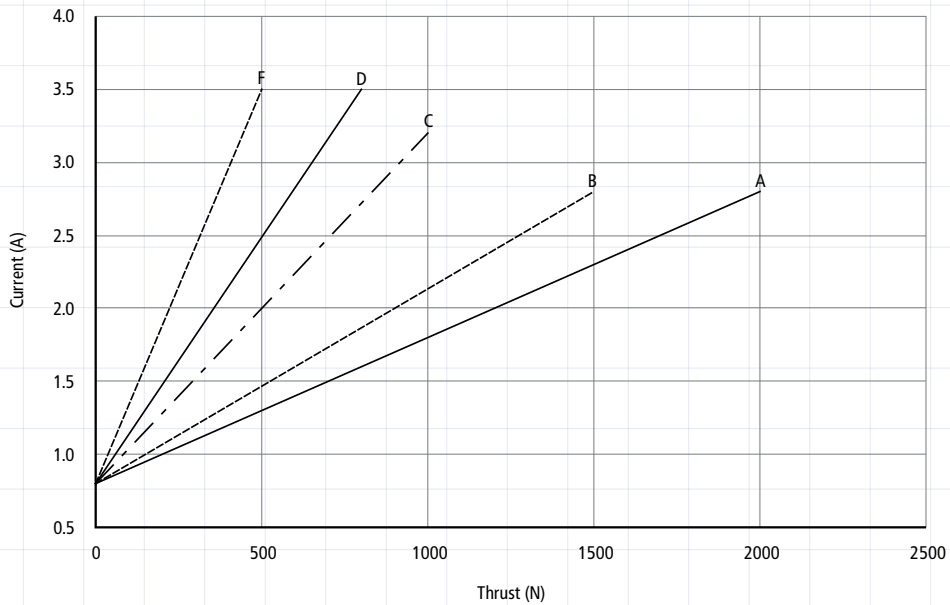
Performance data (24 VDC motor)

Motor speed 4100 min⁻¹

Speed vs. Thrust



Current vs. Thrust



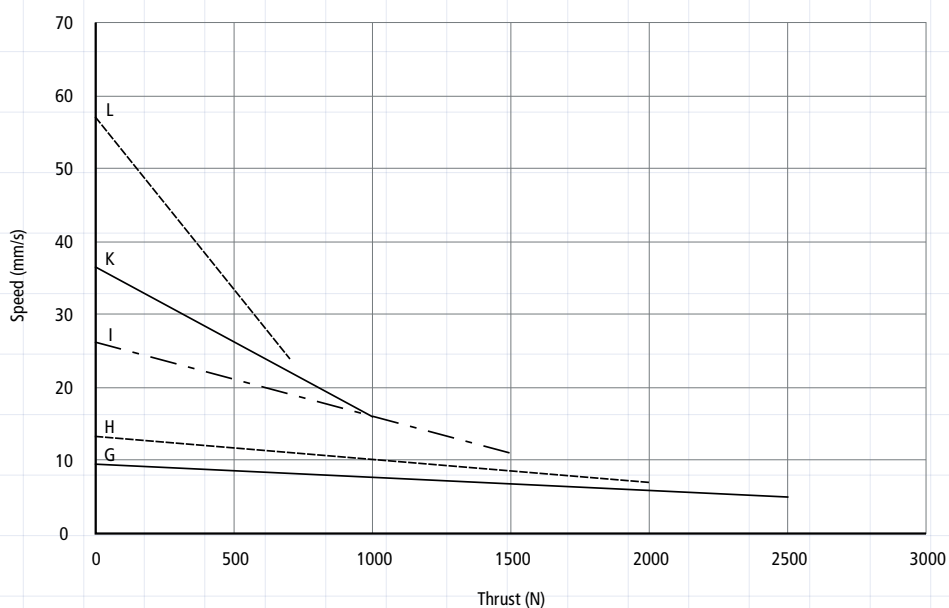
Note

- The performance data in the curve charts shows theoretical value.

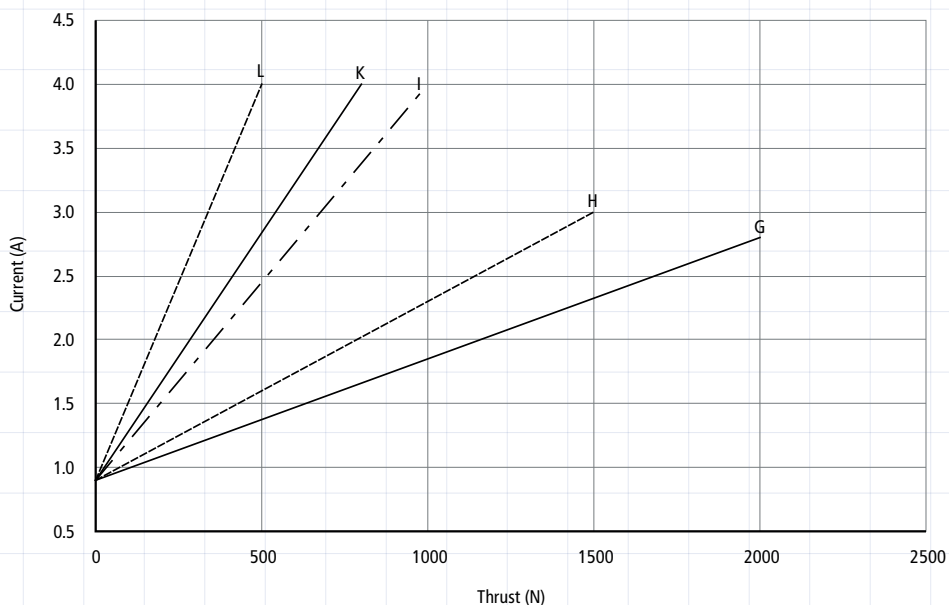
Performance data (24 VDC motor)

Motor speed 3800 min⁻¹

Speed vs. Thrust



Current vs. Thrust



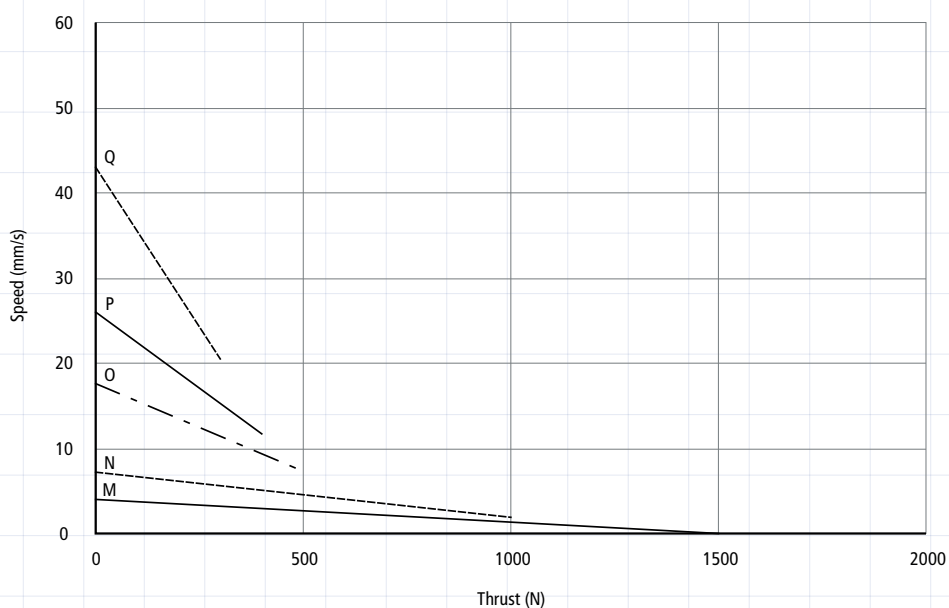
Note

- The performance data in the curve charts shows theoretical value.

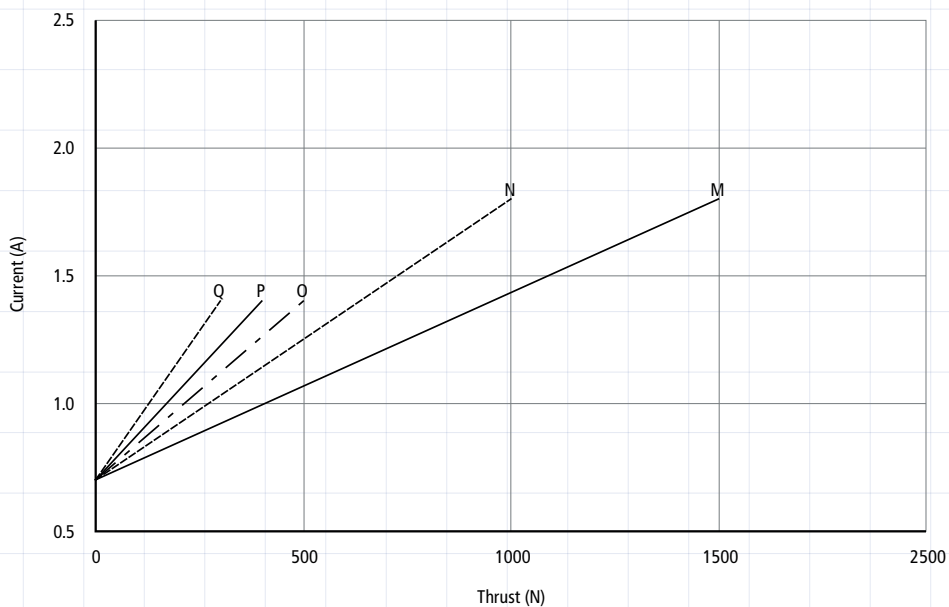
Performance data (24 VDC motor)

Motor speed 3300 min⁻¹

Speed vs. Thrust



Current vs. Thrust



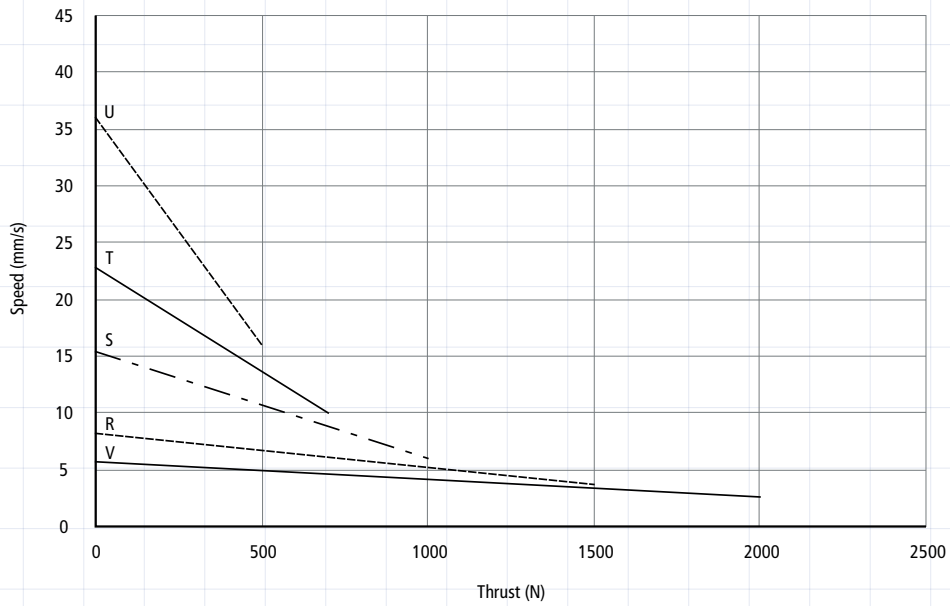
Note

- The performance data in the curve charts shows theoretical value.

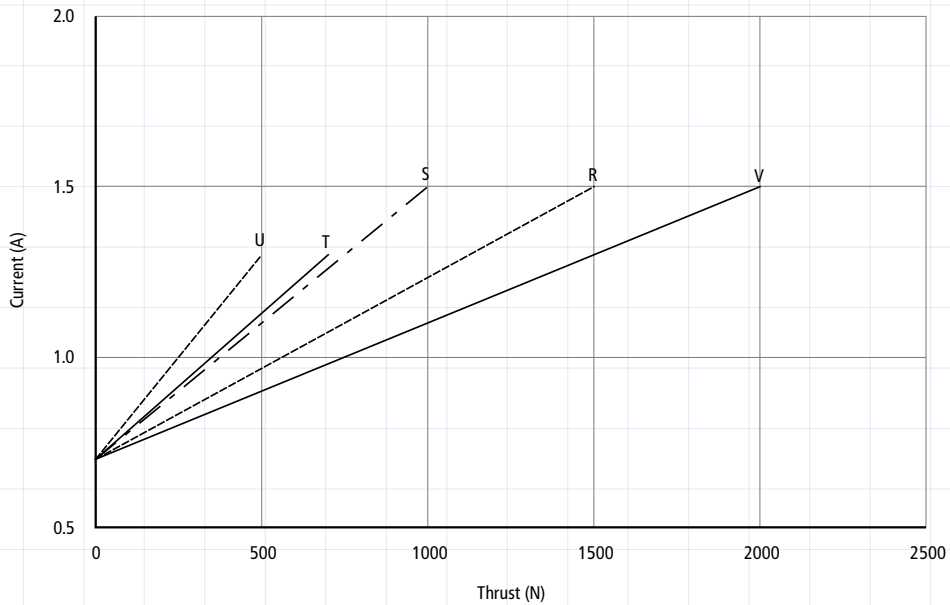
Performance data (24 VDC motor)

Motor speed 2200 min⁻¹

Speed vs. Thrust



Current vs. Thrust

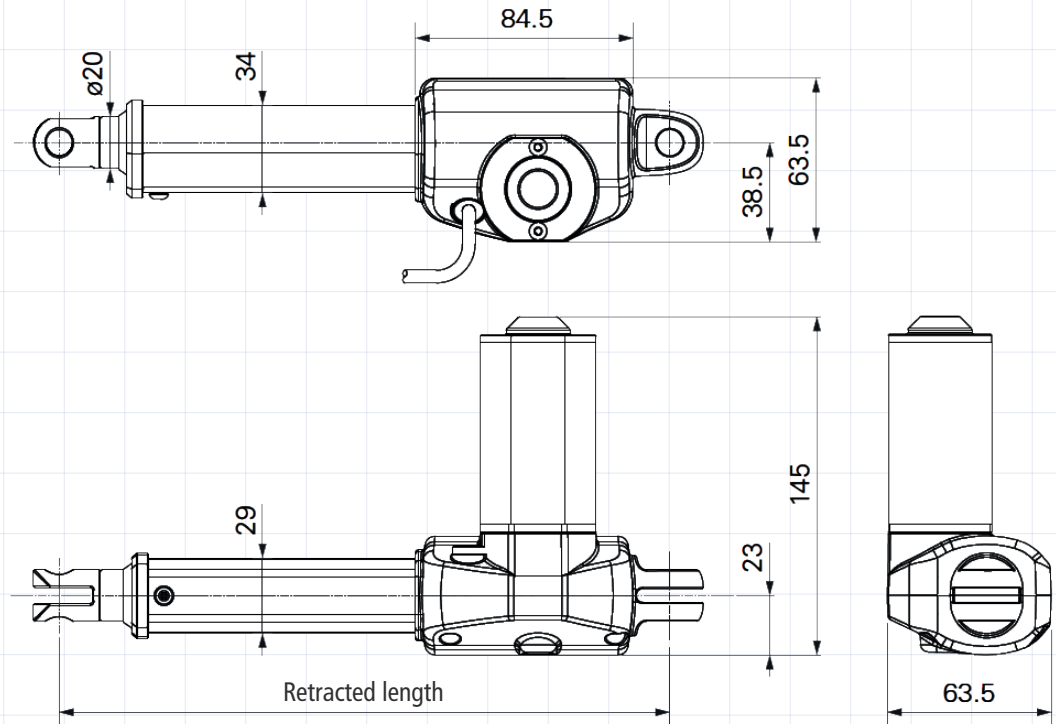


Note

- The performance data in the curve charts shows theoretical value.

Drawing

Standard dimensions (mm)



Retracted length (mm)

Retracted length \geq Stroke+A+B

A			
Code rear attachment	Code front attachment	Code front attachment	
	1, 2	3, 4	
1	140 mm	153 mm	

B		
Stroke (mm)	B	
0~200	-	
>200	For stroke over 200 mm + 5 mm for each incremental 50 mm stroke	

Example

For example, if the TA9 stroke is 230 mm with front and rear attachment 1, the retracted length is 230 mm + 140 mm + 5 mm = 375 mm.

Wire definitions

CODE*	Pin 1 ● (green)	Pin 2 ● (red)	Pin 3 ○ (white)	Pin 4 ● (black)	Pin 5 ● (yellow)	Pin 6 ● (blue)
1	extend (VDC+)	N/A	N/A	N/A	retract (VDC+)	N/A
2	extend (VDC+)	N/A	middle switch pin B	middle switch pin A	retract (VDC+)	N/A
3	extend (VDC+)	common	upper limit switch	N/A	retract (VDC+)	lower limit switch
4	extend (VDC+)	common	upper limit switch	medium limit switch	retract (VDC+)	lower limit switch

Note

* See ordering key – functions for limit switches.

Ordering key (e. g.: TA9-1K-230375-111130-1011)

TA9-

<input type="checkbox"/>	Voltage	1 = 12 V	2 = 24 V
<input type="checkbox"/>	Load and speed	see page 2	
-			
<input type="checkbox"/>	Stroke (mm)		
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>	Retracted length (mm)	see page 7	
<input type="checkbox"/>			
-			
<input type="checkbox"/>	Rear attachment (see page 10)	1 = hole 8.0 mm, slot 5.0 mm	
<input type="checkbox"/>	Front attachment (see page 10)	1 = hole 8.0 mm	3 = U clevis, slot 6.0 mm, hole 8.0 mm
<input type="checkbox"/>	Direction of rear attachment (counterclockwise) (see page 10)	1 = 0°	2 = 90°
<input type="checkbox"/>	Color	1 = black	2 = grey (Pantone 428C)
<input type="checkbox"/>	IP Rating	1 = without	2 = IP54 3 = IP66
<input type="checkbox"/>	Special functions for spindle sub-assembly	0 = without (standard) 2 = push only	
-			
<input type="checkbox"/>	Functions for limit switches	1 = two switches at full retracted/extended positions to cut current 2 = two switches at full retracted/extended positions to cut current + 3rd LS in between to send signal 3 = two switches at full retracted/extended positions to send signal 4 = two switches at full retracted/extended positions to send signal + 3rd LS in between to send signal	
<input type="checkbox"/>	Output signals	0 = without	4 = one Hall sensor 5 = two Hall sensors
<input type="checkbox"/>	Connector (see page 10)	1 = DIN 6P, 90° plug 2 = tinned leads	
<input type="checkbox"/>	Cable length	1 = straight, 500 mm 2 = straight, 750 mm 3 = straight, 1000 mm 4 = straight, 1250 mm	5 = straight, 1500 mm 6 = straight, 2000 mm 7 = coiled, 200 mm 8 = coiled, 400 mm

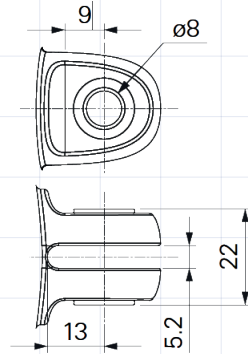
Terms of use

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Ordering key appendix TA9

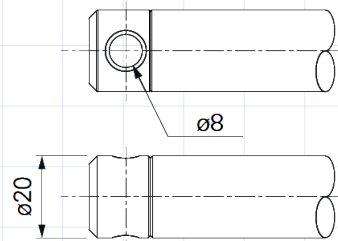
Rear attachment

1 = hole 8.0 mm, slot 5.0 mm

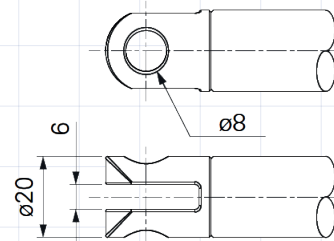


Front attachment

1 = hole 8.0 mm

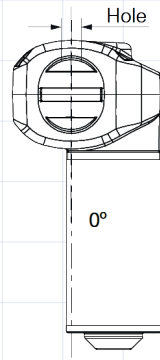


3 = U clevis, slot 6.0 mm, hole 8.0 mm

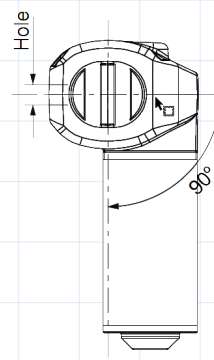


Direction of rear attachment

1 = 0°

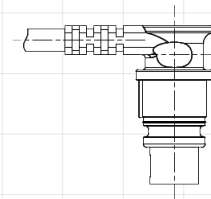


2 = 90°



Connector

1 = DIN 6P, 90° plug



2 = tinned leads

