

drylin® general drive technology – SAW linear modules

Lubrication-free linear modules based on
drylin® W guides

Drive: Trapezoidal or high helix lead screw

Robust design

Ready-to-install stepper or DC motors

Ball bearing



Compact high design



Shaft end supports made from black anodised aluminium

Leadscrew drive with ball bearing as standard

Extremely torsion-resistant drylin® W high profile rail made from hard-anodised aluminium

Lubrication and maintenance-free drylin® lead screw nuts

The carriages consist of four drylin® W individual bearing housings equipped with lubrication-free drylin® liners

Mounting plates made from anodised aluminium, available in different lengths

Adapter plates for linear robot solutions available

Lead screw material: steel/stainless steel/aluminium

Drive: Self-locking trapezoidal thread or fast adjust high helix thread

Configurable with motor as a ready-to-install linear drive


Lubrication-free linear modules – drylin® SAW


The drylin® W high profile provides the torsion-resistant base for the linear axes of the SAW series. Thanks to the ball bearing supported lead screw and high profile design, the SAW linear modules are perfectly suitable for the direct connection to stepper or DC motors. Slots in profile sections enable initiators to be freely positioned and, at the same time, enable set-up as a multi-axis linear robot by means of suitable adapter plates.


- Optimised unit for motor connection
- drylin® W high profile with variable mounting options using clamping elements or slot nuts
- For manual or electrical adjustments
- Ideal for single and/or multi-axial constructions


Typical application areas

- Positioning functions
- 3D scanner
- Format adjustments
- Linear robot structures
- Height adjustments

 **Available in 3–8 days**
Detailed information about delivery time online.

 **Price breaks online**
No minimum order value. No minimum order quantity.

 **Carriage lengths: 60–250mm**
Carriage widths: 54–107mm
Stroke lengths: up to 750mm

 **Product finder**
▶ www.igus.eu/saw-productfinder

Ball bearing



SAW linear module

- Robust high design in 4 sizes
 - Drive: Trapezoidal or high helix lead screw
 - For manual positioning or motorised operation
- ▶ Page 1400



SAWC linear module

- Compact short design
 - With integrated drylin® lead screw motor
 - Optimised ratio of useful length to total length
- ▶ Page 1402



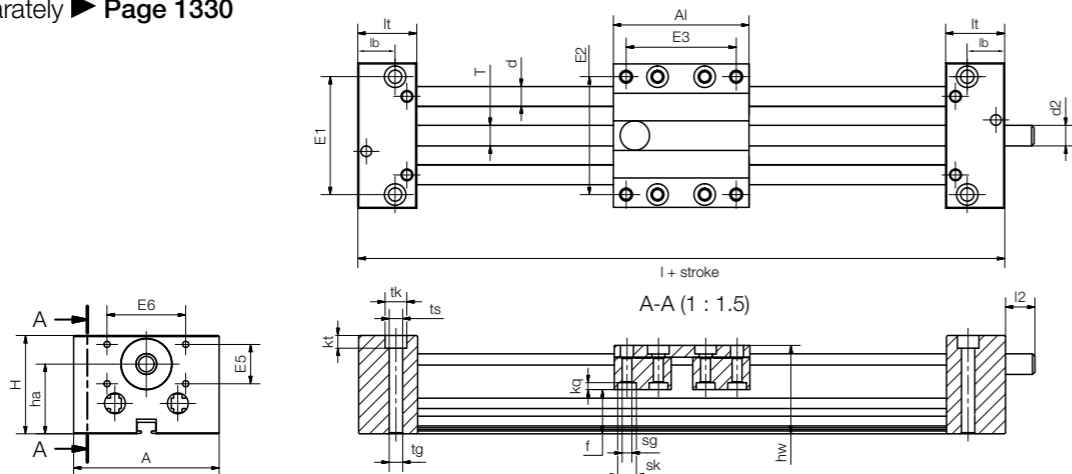
DLE linear module

- Configured linear modules with NEMA stepper motors
 - Available in 24 hours
 - Pre-assembled and tested
- ▶ Page 1403

Robust design



- Trapezoidal or high helix threads
- Ball bearing supported lead screw
- Rail profile in high design, extremely torsion-resistant
- Aluminium drylin® W guide rails, hard-anodised
- High stability
- Cost-effective and 100% lubrication-free
- Available accessories ► Page 1503
- Lead screw nuts are available separately ► Page 1330



Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	Additional (per 100mm)	Max. speed [rpm]	Max. static load capacity	
					axial [N]	radial [N]
SAW-0630	300	0.5	0.1	1,000	100	400
SAW-0660	500	0.9	0.1	1,000	100	400
SAW-1040	500	1.0	0.1	1,500	500	2,000
SAW-1080	750	1.9	0.2	1,500	750	2,000
SAW-1660	750	2.8	0.5	1,500	750	3,000

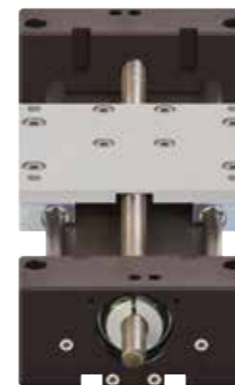
Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	E5	E6	I	lc	hw	f	lt	lb
	-0.3	-0.3		+0.15	+0.15	+0.15								
SAW-0630	54	60/100	32	40	45	51/91	11	23	112/152	92	30	13.5	26	10
SAW-0660	85	100	38	71	76	91	-	-	156	-	34	13.7	28	-
SAW-1040	74	69/100/150	50	60	60	56/87/137	20	40	129/160/210	91	45	22.5	30	19
SAW-1080	108	100	58	94	94	87	-	-	163	131.5	49	22.5	31.5	15.75
SAW-1660	104	150	77	84	86	132	20	40	220	175	72	38.5	35	22.5

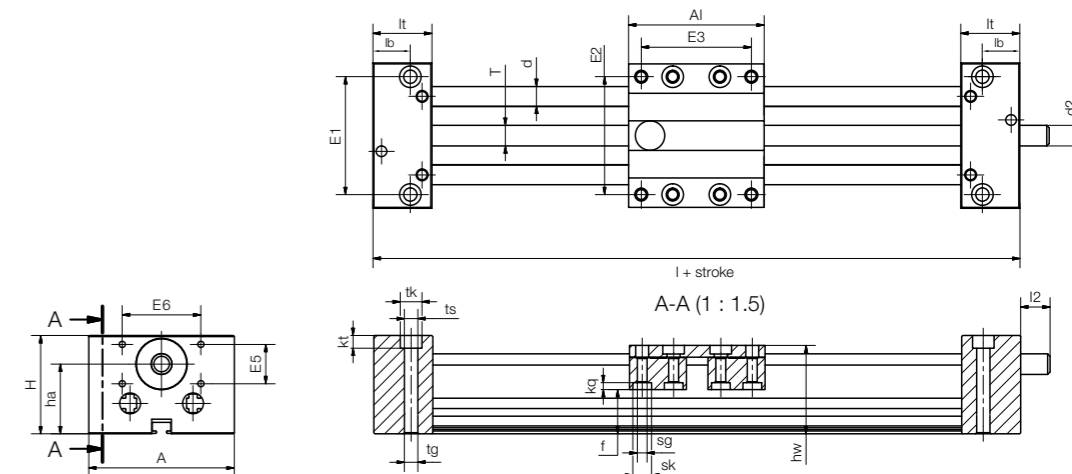
Part No.	tk	ts	tg	kt	sk	sg	kq	d	T	l2	d2	ha
				±0.1					∅			
SAW-0630	11	6.6	-	20	-	M4	10	□5	Tr8x1.5	15	Tr8x1.5	21.5
SAW-0660	-	-	M8	20	7	M4	2	□6	Tr10x2	15	Tr10x2	23.0
SAW-1040	11	6.8	M8	6.4	9.5	M6	3.5	10	Tr10x2	17	Tr10x2 ∅ 6 h9 ¹¹³⁾	35.5
SAW-1080	11	6.8	M8	18	9.5	M6	3.5	10	Tr12x3	17	Tr12x3 ∅ 8 h9 ¹¹³⁾	37.5
SAW-1660	15	9.0	M10	8.6	11	M8	5.5	16	Tr14x4	20	Tr14x4 ∅ 8 h9 ¹¹³⁾	59.0

¹¹³⁾ Lead screw end unmachined, also available with machined end

Reduced clearance with pretension in lead screw support and lead screw nut



- Lubrication and maintenance-free
- Quiet, reduced backlash
- Trapezoidal or high helix threads
- 3 carriage lengths (100/150/200mm) with spring-loaded second lead screw nut
- Liners made from wear-resistant high-performance polymers
- For manual and electric adjustment even in multi-axis linear robots



Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	Additional (per 100mm)	Max. speed [rpm]	Max. static load capacity	
					axial [N]	radial [N]
SAW-1080-PL	750	1.9	0.2	1,500	750	2,000

Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	E5	E6	I	lc	hw	f	lt	lb
	-0.3	-0.3		+0.15	+0.15	+0.15								
SAW-1080-PL	108	100	58	94	94	87	-	-	163	131.5	49	22.5	31.5	15.75

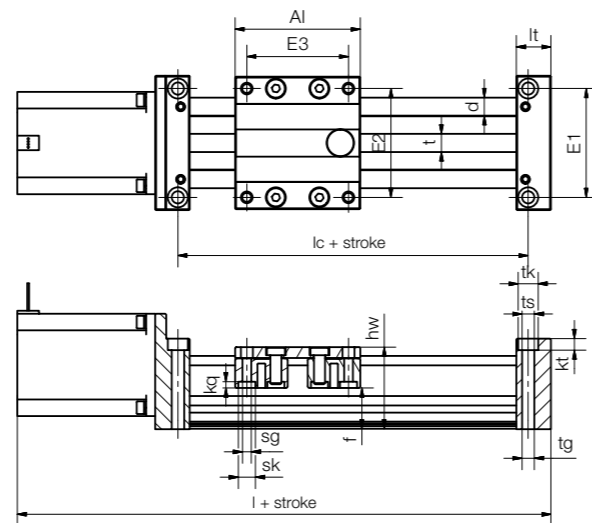
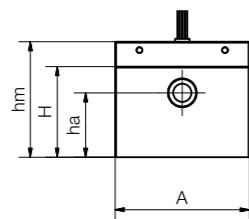
Part No.	tk	ts	tg	kt	sk	sg	kq	d	T	l2	d2	ha
				±0.1					∅			
SAW-1080-PL	11	6.8	M8	18	9.5	M6	3.5	10	Tr12x3	17	Tr12x3 ∅ 8 h9 ¹¹³⁾	37.5

¹¹³⁾ Lead screw end unmachined, also available with machined end

Direct drive in short design



- Smaller installation space and more stroke
- Compact short design due to the use of drylin® lead screw motors
- Optimised ratio of useful length to total length (compared to the SAW series, up to 70mm)
- Improved operating characteristics
- Space-saving and lightweight



Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	Additional (per 100mm)	Max. speed [rpm]	Max. static load capacity	
					axial [N]	radial [N]
SAWC-0630	300	0.5	0.1	1,000	100	200
SAWC-1040	500	1.0	0.1	1,500	500	2,000

Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	l	lc	hw	f	lt	lb
	-0.3	-0.3		+0.15	+0.15	+0.15						
SAWC-0630	54	50	42.5	40	45	51	139	75	30	13.5	15	7.5
SAWC-1040	74	69	50	60	60	56	183	82	45	22.5	19	9.5

Part No.	tk	ts	tg	kt	sk	sg	kq	d	T	ha
									±0.1	
SAWC-0630	8	4.2	M5	20	7	M4	2	5	Tr08x1.5 Ds08x15	21.5
SAWC-1040	11	6.8	M8	6.4	9.5	M6	3.5	10	Tr10x2 ⁹²⁾ Ds10x12	35.5

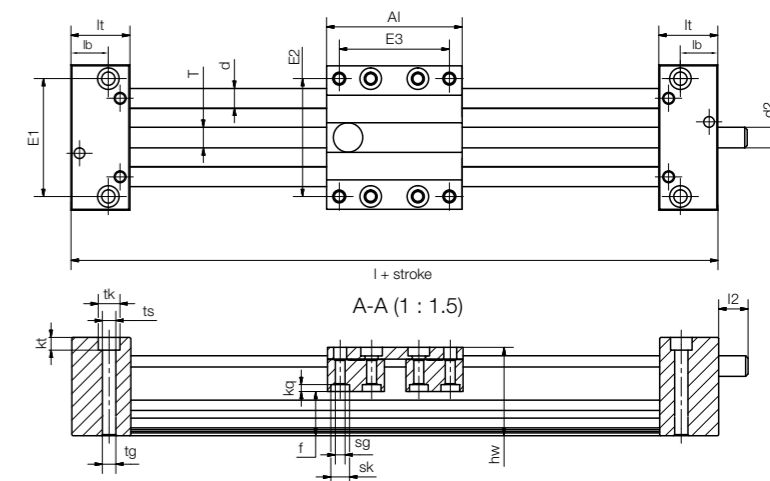
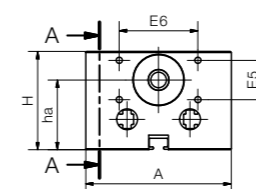
⁹²⁾ Lead screw end unmachined

Linear modules with motor – deliverable within 24 hours from stock



igus® delivers ready-to-install, preconfigured linear modules (drive: lead screw or toothed belt) from stock within 24 hours. You simply choose between 3 sizes, 3 stroke lengths and 3 stepper motors ... and the system is delivered in 24 hours after you place your order.

- drylin® linear modules with motor
- Available from stock
- Ready-to-install and pre-assembled
- NEMA stepper motors with stranded wires
- Basis drylin® ZLW and SAW linear axes
- Available accessories ► Page 1503



Technical data

Part No.	Installation size	Carriage length	Stroke length	Motor type	
				axial [N]	radial [N]
DLE-SA-0004	SAW-0630 Tr08x1.5	60	250	NEMA17	stranded wires
DLE-SA-0005	SAW-1040 Tr10x2	69	500	NEMA23	stranded wires
DLE-SA-0006	SAW-1080 Tr12x3	100	500	NEMA23XL	stranded wires

Part No.	Max. stroke length [mm]	Weight [kg]	Additional (per 100mm)	Max. speed [rpm]	Max. static load capacity	
					axial [N]	radial [N]
DLE-SA-0004	300	0.5	0.1	1,000	100	400
DLE-SA-0005	500	1.0	0.1	1,500	500	2,000
DLE-SA-0006	750	1.9	0.2	1,500	750	2,000

Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	E5	E6	l	lc	hw	f	lt	lb
	-0.3	-0.3		+0.15	+0.15	+0.15								
DLE-SA-0004	54	60/100	32	40	45	51/91	11	23	112/152	92	30	13.5	26	10
DLE-SA-0005	74	69/100/150	50	60	60	56/87/137	20	40	129/160/210	91	45	22.5	30	19
DLE-SA-0006	108	100	58	94	94	87	-	-	163	131.5	49	22.5	31.5	15.75

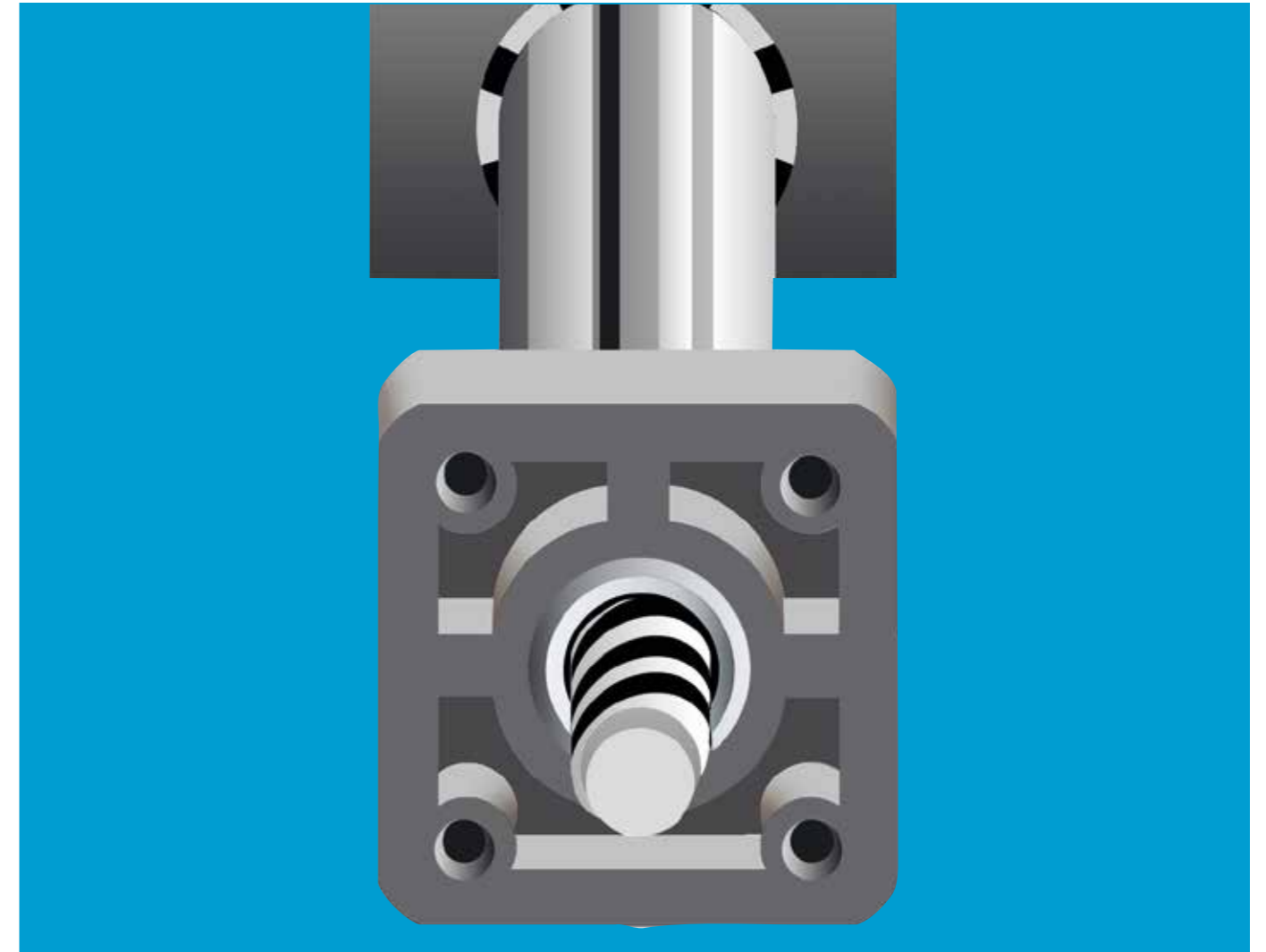
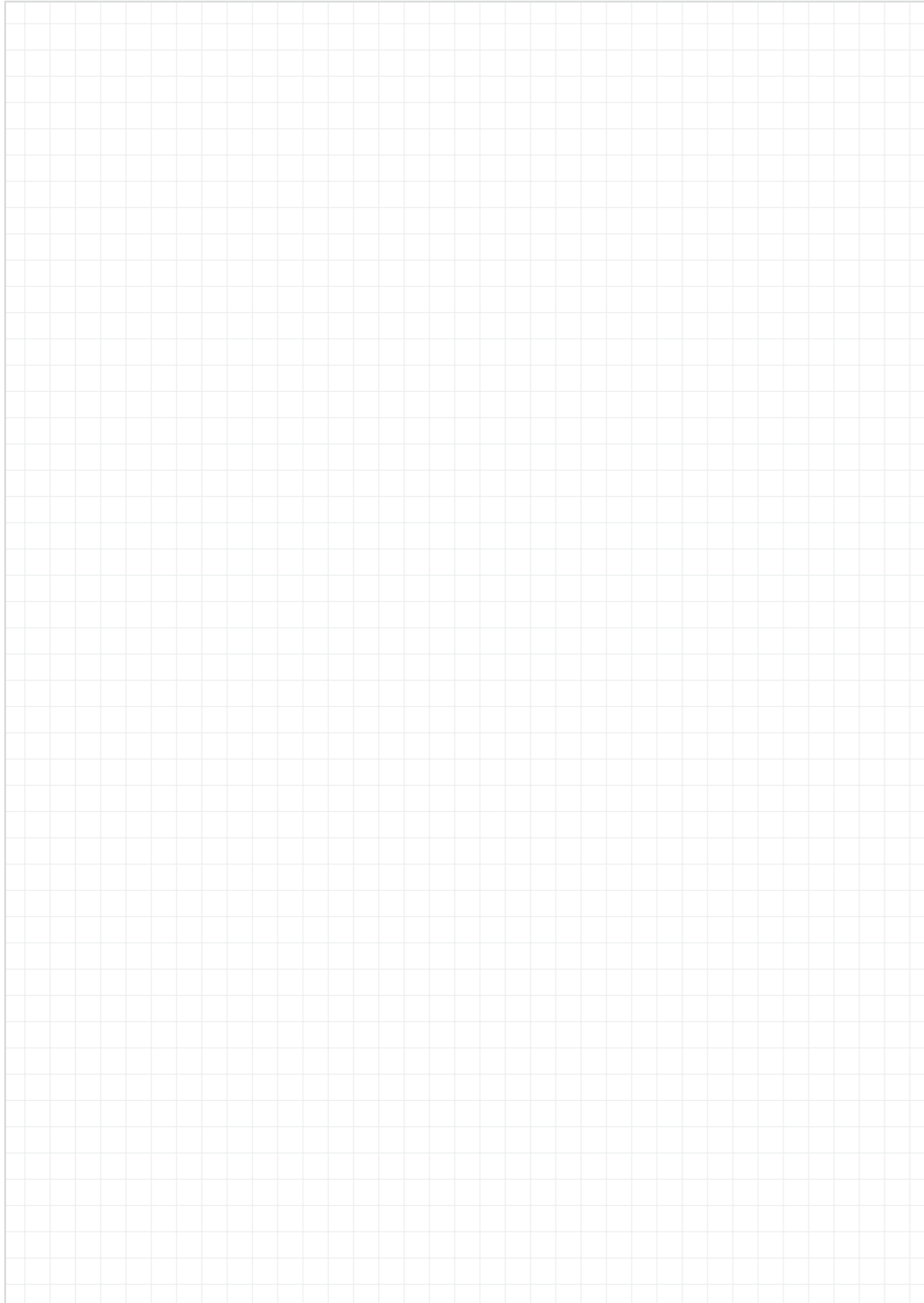
Part No.	tk	ts	tg	kt	sk	sg	kq	d	T	l2	d2	ha
									±0.1			
DLE-SA-0004	11	6.6	-	20	-	5	10	□5	Tr8x1.5	15	Tr8x1.5	21.5
DLE-SA-0005	11	6.8	M8	6.4	9.5	M6	3.5	10	Tr10x2	17	Tr10x2 ∅ 6 h9 ¹¹³⁾	35.5
DLE-SA-0006	11	6.8	M8	18	9.5	M6	3.5	10	Tr12x3	17	Tr12x3 ∅ 8 h9 ¹¹³⁾	37.5

¹¹³⁾ Lead screw end unmachined, also available with machined end



Further information about the motors

► Page 1518



drylin[®] general drive technology – SET linear modules

Lubrication-free single-tube adjustment

Drive: Trapezoidal thread

Simple, smooth design

Lightweight due to aluminium and plastic

Temperature resistance up to +50°C

