

Standard Equipment /Optional Equipment

Standard Equipment

Modular designed truck for perfect customization

Operators compartment

Operators cabin "Combi" for easy stacking or order picking
 Height and length adjustable and stowable fabric seat
 Suspension-mounted cab to absorb shock and vibration
 Very soft and comfortable platform surface
 Steering knob
 Truck access via key
 Low step on height for easy on and off
 Optic and acoustic user guidance with signalling
 Basic functions without changing position of grip
 Multipurpose full graphic color display
 Sensor area for secured 2 handed driving
 Lateral barriers left and right

Throughput

LSC standard
 Synchronized lowering/lifting
 Energy recovery when braking or lowering the cabin
 Synchronous reach & rotate of forks

Mast / Forks

L Head or telescopic forks

Motors

7 KW drive motor
 20 KW lift motor

Optional Equipment

Operators compartment

Different types of cabins (combi, comfort, coldstore)
 Comfortable seats (air suspended, heated, adjustable backrests, armrests, etc.)
 Radio preparation integrated in the overhead guard
 Rearview (left/right) and panorama mirror
 Clipboard DIN A4
 Wind protection for lateral doors and loadside (glazed doors and cabin)
 Operator fan
 Lighting for operators compartment
 Working lights into racking
 Linde Connect
 Individual configurable attachment bars on load or mast side

Masts / Forks

Standard masts up to 11800 mm lift height
 Triplex masts available up to 15650 mm lift height
 Telescopic forks
 Manual or hydraulic adaptable forks
 Gear rack cover of L-Head

Battery

Different battery (compartment) sizes
 Battery roller for lateral change
 Battery carrier

Electrical verification for battery lock
 Side covering for battery

Environment

Cold store protection (w/w.o. 2nd sliding door, Intercom)
 Antistatic guide rollers

Safety

Rescue alarm
 Load wheel brake for increased safety at emergency stop
 Personal safety equipment (PSE)
 Non contact collision avoiding sensor

Motors

7 kW Heavy Drive Motor
 24 kW Heavy Lift Motor



Modular very narrow aisle (VNA)
 dual purpose combi truck
 Capacity up to 1.500 kg

Series 5231

Linde Material Handling



Safety

The K offers various systems to offer safe operation for the operator as well as its environment. The personal safety system prevents damage inside the aisle, while the innovative rescue alarm detects unusual operators behavior and attracts attention in emergency cases.

Performance

Strong motors enable high lift- and driving-speeds, while the ergonomic control panel enables quick load handling with minimal hand movement. Assisting systems like LSC or the Aisle safety assist support the operator for maximum throughput in safe operation.

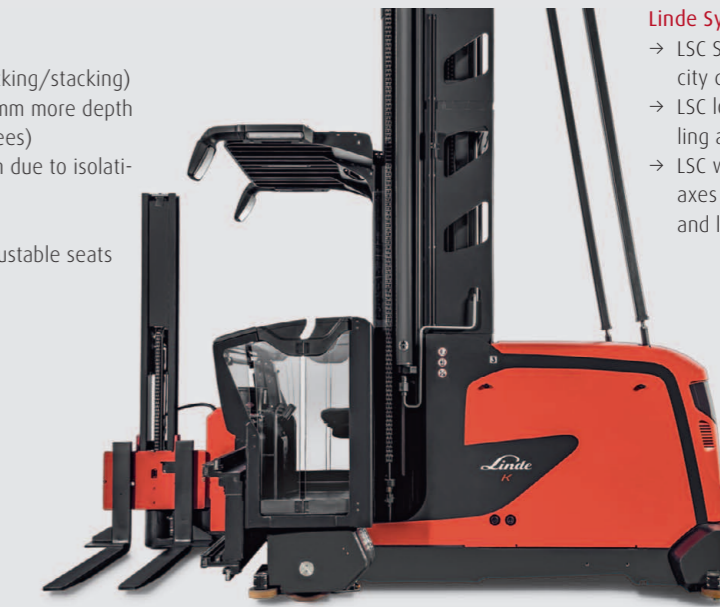
Comfort

With the K trucks superb cabin layout the operator feels immediately at ease and acclimatised. With generous space for freedom of movement, the cab offers a comfortable operational environment for fatigue-free working and promotes optimum efficiency and productivity.

Features

Cabin

→ 3 different cabins available
 - Combi cabin (combined picking/stacking)
 - Comfort cabin with + 100 mm more depth
 - Cold store cabin (-30 degrees)
 → Reduced shock and vibration due to isolation of cabin from chassis
 → Easy and low access height
 → Various comfortable and adjustable seats



Linde System Control (LSC)

→ LSC Standard: Dynamic residual capacity diagram depending on lift height
 → LSC load: Optimisation of shift, swivelling and suppl. lift by load recognition
 → LSC weight: Optimization of all moved axes depending on actual load weight and lift height

Modular concept

→ Unique modular design concept enables perfect individualization:
 → Combination of different lift and drive motors
 → Truck capacities from 0,5 t to 1,5 t
 → Various cabin widths and executions
 → Various chassis widths
 → Different battery compartments

Control panel

→ Control panel options for perfect customisation:
 → Split control panel for full pallet handling
 → Front control panel for order picking or full pallet handling

Dynamic Reach Control

→ Effective compensation of lateral mast movements while reaching of forks enables, quicker and more comfortable pallet handling
 → Reach adjustment depending on lift height and load weight enables exact and even storage of goods



Mast

→ New modular design with exceptionally stable, low deflection characteristics
 → Alternative standard and triplex mast to suit all headroom requirements
 → More than 60 different masts available
 → Automatic soft stop of lift, rotate and traverse movements



Doors

→ Side barriers for quick access and easy order picking
 → Glass doors to avoid draft and wind
 → Tilting barriers for perfect reach to picking position



Operator's compartment

→ Powerful, 2 stage ventilation for comfortable working
 → Low energy consuming and bright LED lamps
 → Modular storage system for flexible use of individual monitors, scanners, etc.
 → Comfortable knee pad at cabin front for placing of picks

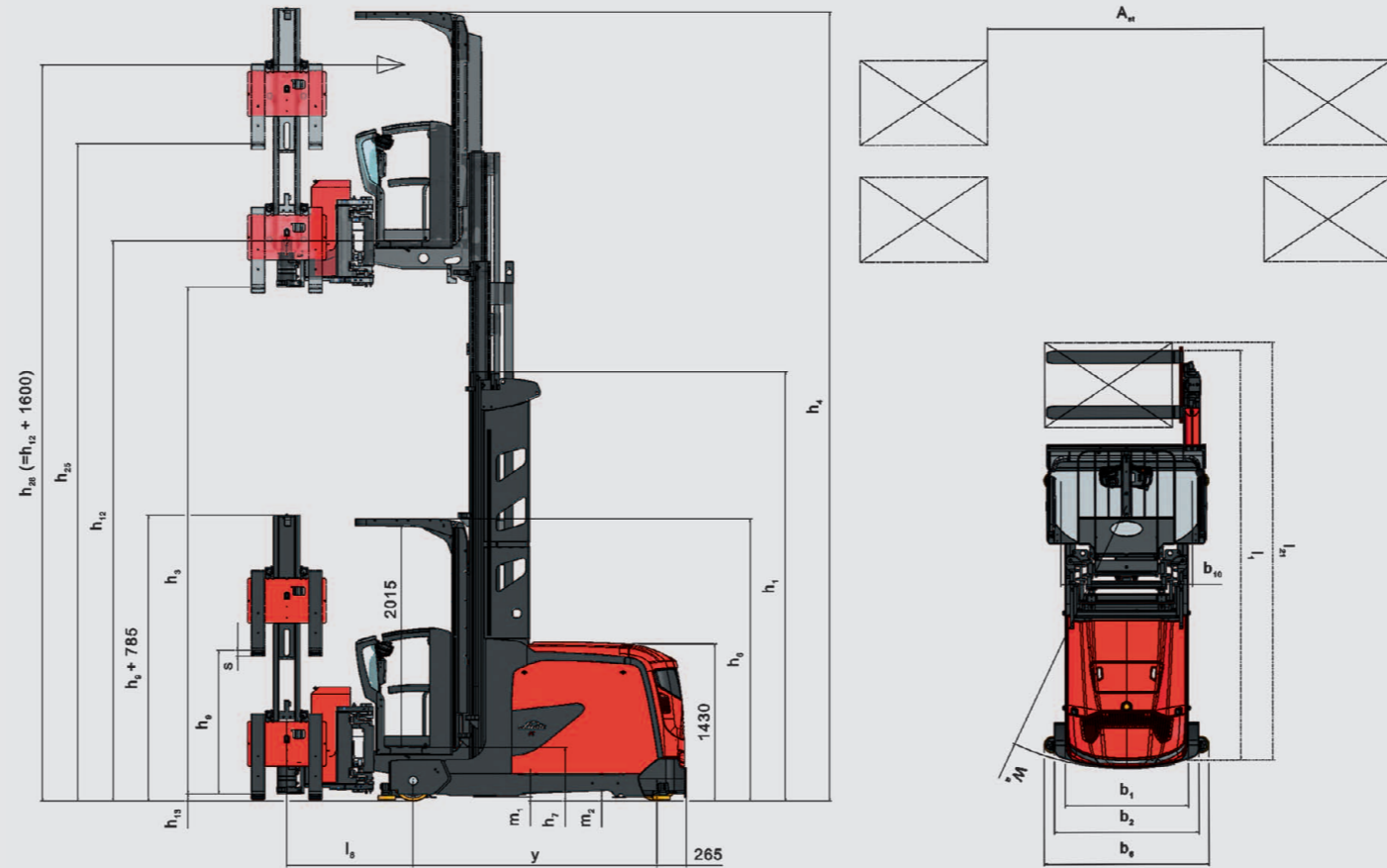


Technical Data according to VDI 2198

		LINDE	LINDE	LINDE		
Characteristics	1.1	Manufacturer	LINDE	LINDE	LINDE	
	1.2	Manufacturer's type designation	K-Example 0.7	K-Example 1.1	K-Example 1.5	
	1.2a	Series	5231-00	5231-00	5231-00	
	1.3	Power unit	Battery	Battery	Battery	
	1.4	Operation	Stand/Sitz	Stand/Sitz	Stand/Sitz	
	1.5	Load capacity/Load	Q (t)	0.7 ¹⁾	1.1 ¹⁾	1.5 ¹⁾
Weights	1.6	Load centre distance	c (mm)	600	600	600
	1.9	Wheelbase	y (mm)	1614	1758	1992
	2.1	Service weight	(kg)	6488 ²⁾	8122 ²⁾	10228 ²⁾
Wheels/Tyres	2.2	Axle load with load, front/rear	(kg)	1982 / 5206	2545 / 6677	3228 / 8500
	2.3	Axle load without load, front/rear	(kg)	2424 / 4064	3183 / 4939	3995 / 6233
	3.1	Tyres rubber, SE, pneumatic, polyurethane		Polyurethane	Polyurethane	Polyurethane
	3.2	Tyre size, front		Ø 360 x 130	Ø 406 x 170	Ø 406 x 170
	3.3	Tyre size, rear		Ø 370 x 160	Ø 370 x 160	Ø 370 x 160
	3.5	Wheels, number front/rear (x = driven)		1x / 2	1x / 2	1x / 2
Dimensions	3.6	Track width, front	b10 (mm)	1245	1245	1245
	4.2	Height of mast, lowered	h1 (mm)	3900	4900	7400
	4.4	Lift	h3 (mm)	5600	7200	11800
	4.5	Height of mast, extended	h4 (mm)	8155	9755	14355
	4.7	Height of overhead guard (cabin)	h6 (mm)	2555	2555	2555
	4.8	Height of seat/stand on platform	h7 (mm)	460	460	460
	4.11	Supplementary lift	h9 (mm)	1800	1800	1800
	4.14	Platform height, raised	h12 (mm)	6060	7660	12260
	4.15	Height, lowered	h13 (mm)	60	60	60
	4.19	Overall length	l1 (mm)	3244	3388	3622
	4.21	Overall width	b1/b2 (mm)	1160 / 1450 ³⁾	1160 / 1450 ³⁾	1160 / 1450 ³⁾
	4.22	Fork dimensions DIN ISO 2331	s/e/l (mm)	50 x 120 x 1190	50 x 120 x 1190	50 x 120 x 1190
	4.24	Width of fork carriage	b3 (mm)	710	710	710
	4.25	Fork spread	b5 (mm)	470 / 640	470 / 640	470 / 640
	4.27	Width over side guide rollers	b6 (mm)	1585	1585	1585
	4.29	Reach, lateral	b7 (mm)	1305	1305	1305
	4.31	Ground clearance, below mast	m1 (mm)	40	40	40
	4.32	Ground clearance, centre of wheelbase	m2 (mm)	87	87	87
	4.34.2	Aisle width with pallet 800 x 1200 along forks	Ast (mm)	1645 ⁴⁾	1645 ⁴⁾	1645 ⁴⁾
	4.35	Turning radius	Wa (mm)	1870	2014	2248
	4.38	Centre of axle to fork pivot	l8 (mm)	1019	1019	1019
	4.39	Head centre	A (mm)	480	480	480
	4.40	Width of reach carriage	B (mm)	1465	1465	1465
	4.41	Head width	F (mm)	250	250	250
4.42	End aisle width, with/without load	Au (mm)	3664	3808	4042	
Performance	5.1	Travel speed, with/without load	(km/h)	9 / 9	12 / 12	12 / 12
	5.2	Lifting speed, with/without load	(m/s)	0.4 / 0.4	0.45 / 0.6	0.39 / 0.39
	5.3	Lowering speed, with/without load	(m/s)	0.45 / 0.45	0.45 / 0.45	0.43 / 0.43
	5.4	Reach speed, with/without load	(m/s)	0.3 / 0.4	0.3 / 0.4	0.3 / 0.4
	5.9	Acceleration time, with/without load	(s)	6.0 / 6.0	6.0 / 6.0	7.0 / 7.0
	5.10	Service brake		Regenerative	Regenerative	Regenerative
Drive	6.1	Drive motor rating S2 60 min	(kW)	6.5	7	7
	6.2	Lift motor rating at S3 15%	(kW)	13	24	24
	6.3	Battery according to DIN 43531/35/36 A,B,C,no		43 531 / B	43 536 / A	43 536 / A
	6.4	Battery voltage/rated capacity (5h)	(V)/(Ah)	48 / 775	80 / 620	80 / 775
	6.5	Battery weight (+ 5%)	(kg)	1119	1558	1863
	8.1	Type of drive unit		Microprocessor	Microprocessor	Microprocessor
	10.7	Sound pressure level LpAZ (at the driver's seat)	(dB(A))	68	68	68

1) Delta Q = 100 kg; from 500-1500 kg with L-Head model and from 500 - 1300 kg with telescopic forks
2) Figures with battery, see line 6.4/6.5.

3) Step for b2; 50 mm from 1160 - 1800 mm
4) Including a 180 mm (min.) operating aisle clearance.



Standard mast (Basic)	h1=2400	h1=2900	h1=3400	h1=3900	h1=4400	h1=4900
h3	2600	3600	4600	5600	6200	7200
h25	4460	5460	6460	7460	8060	9060
h9	1800	1800	1800	1800	1800	1800
h28	4660	5660	6660	7660	8260	9260
h4	5155	6155	7155	8155	8755	9755

Standard mast (Basic Plus, Medium, Heavy, Heavy Plus)	h1=2400 ¹⁾	h1=2900 ³⁾	h1=3400 ³⁾	h1=3900	h1=4400	h1=4900	h1=5400	h1=5900	h1=6400 ²⁾	h1=6900 ²⁾	h1=7400 ²⁾
h3	2200	3200	4200	5200	6200	7200	8200	9000	10000	10800	11800
h25	4060	5060	6060	7060	8060	9060	10060	10860	11860	12660	13660
h9	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
h28	4260	5260	6260	7260	8260	9260	10260	11060	12060	12860	13860
h4	4755	5755	6755	7755	8755	9755	10755	11555	12555	13355	14355

¹⁾ only available for Basic Plus standard mast ²⁾ not available for Basic Plus standard mast ³⁾ not available for Heavy Plus standard mast

K Triplex mast (Medium, Heavy, Heavy Plus)	h1=2900 ¹⁾	h1=3400	h1=3900	h1=4400	h1=4900	h1=5400	h1=5900	h1=6400 ²⁾	h1=6900 ²⁾
h3	5050	6350	7450	8750	10050	11550	12850	14350	15650
h25	6910	8210	9310	10610	11910	13410	14710	16210	17510
h9	1800	1800	1800	1800	1800	1800	1800	1800	1800
h28	7110	8410	9510	10810	12110	13610	14910	16410	17710
h4	7605	8905	10005	11305	12605	14105	15405	16905	18205

¹⁾ not available for Heavy Plus Triplex mast ²⁾ only available for Heavy Plus Triplex mast

