

# ABUS CRANE SYSTEMS

# ABUS GM wire rope hoists: Quality at your fingertips





Type D crab units on double-girder overhead travelling cranes



Type E monorail hoist on a type VS pillar jib crane



Type E monorail hoists on type ELV single-girder overhead travelling cranes



Type E monorail hoist on a type EDL underslung overhead travelling crane

Absolute reliability is one of the most important features for a wire rope hoist. To ensure the highest possible reliability levels in day-to-day operation, our crane systems are made to the most stringent quality standards. ABUS GM electric wire rope hoists are produced using the most advanced technology available and continue to bear witness to their reliability, safety and durability year after year, from motor to rope, gearbox, brakes and electrical and electronic systems.

Apart from quality, versatility is an outstanding feature of ABUS GM electric wire rope hoists. These units cover an extremely wide load capacity range, from 1,000 kg to 120 tonnes. And the comprehensive standard equipment means that even a standard ABUS electric wire rope hoist is a versatile unit right from the start. Additional equipment is also available for special applications. Order an ABUS GM electric wire rope hoist and you can be sure that you have opted for a top-quality material handling unit.

quality features

ABUS GM wire rope hoists -

# Hoisting gear

Lightweight gear units with silentrunning flat bevelled gears deliver the torque required. Four different gear ratios are available for each model.



### Hoist motor

Sturdy pole change motors with cylindrical rotors and integrated safety brakes are the power house of ABUS wire rope hoists.



# Rope guide

A resilient low-friction plastic rope guide designed as an expanding ring provides positive guidance for the rope. The rope guide also reduces wear on the rope and rope drum. It is also easy to install, reducing maintenance requirements for the unit as a whole.



# **Bottom block**

The elegant bottom blocks are equipped with edge protectors around the rope opening. Long service lives and high safety levels are outstanding features of the resilient annealed steel rollers with machined rope grooves and annealed load hooks.



# Safety brake

The dual-disk electromagnetic brake features automatic braking in the event of a power failure. Asbestosfree brake linings designed for approx. 1 million braking operations make for long maintenance intervals.



2 cross travel speeds and galvanized rope and galvanid features as standard features

# Cross travel drive

ABU

Two compact epicyclic reduction gears with pole-changing brake motors directly drive two wheels.



# **Electrical system**

The easy-to-service control system with ABUS LIS control unit includes motor protection functions, operating hours meter and overload protection function.



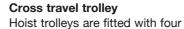
# Easy plug-in connector

The factory fitted ABUS plug and socket connections reduce installation and maintenance work to a minimum. Connections are easy to assemble and dismantle. Furthermore incorrect connections are impossible.



### **ABUS** emergency limit switch

Two standard switching points for the highest hook position ensure double safety.



flanged wheels with permanently lubricated roller bearings, designed for use on tracks with parallel flanges. Wheels for tracks with inclined flanges are available as an option.



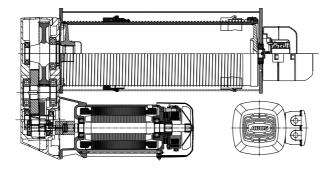
# ABUS electric wire rope hoists - the technology

# GM electric wire rope hoists demonstrate the high quality level achieved by ABUS:

- developed using advanced calculation and CAD programs
- future-oriented technology: two-speed hoist and cross travel drives, standard motor protection functions
- · made and tested at advanced production facilities, with an ISO 9001 quality system ensuring constant high levels of quality
- · optimized by continuous incorporation of experience obtained in testing and use
- reliable, durable units for load capacities from 1 t to 120 t with the CE mark for use in the European Economic Area:
- 7 basic types available in various models with speeds, lifting heights and drive groups for a wide range of applications.

### Hoist design

ABUS wire rope hoists are extremely compact units, robust and easy to maintain, which can easily stand up to comparison with the competition. Outstanding design features include the parallel configuration of rope drum and hoist motor, modular design and the functional arrangement of all components. Joints with direct fits between components such as hoist motor, gears, rope drum and limit switches save parts and improve reliability. Modular hoist motors increase flexibility in type selection and facilitate potential service requirements.



### **Hoist motors**

ABUS uses sturdy cylindrical rotor pole change motors with elegant continuous cast aluminium sections, integrated safety brakes and easy-to-use plug and socket connectors. Hoists are supplied as insulation class F, IP55 protected units.

Stator subdivisions are optimized for higher electrical efficiency, smooth running and improved thermal capacity in service with frequent switching operations, allowing smaller sizes compared with conventional motors. Automated winding production ensures reproducible quality.

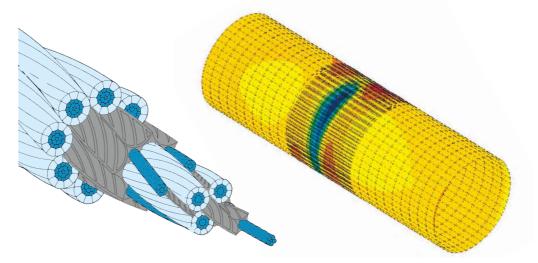


# Hoist gears

Precision flat bevelled gear units in light alloy housings with case-hardened gears, high-grade surface treatment and permanent oil lubrication ensure high reliability and smooth running with a minimum of maintenance.

### **Hoist brakes**

Dual-disk electromagnetic brakes ensure automatic braking on power failure. Environmentally sound brake linings designed for approx. 1 million braking operations allow long maintenance intervals.



### **ABUS** wire ropes

- · improved tensile strength
- enhanced fatigue strength under cyclic bending stresses
- high structural coherence
- improved abrasion resistance
- enhanced corrosion protection

### Rope drums

Developed and optimized with the aid of finite element simulation programs

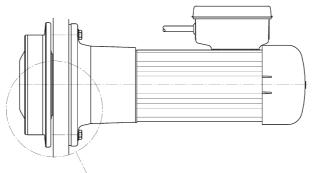
Rope drive

Low weight and compact dimensions are top priorities in the ABUS design brief, which is why ABUS development engineers have selected high-strength galvanized wire ropes with compacted strands and a special structure for use on ABUS wire rope hoists.

Combined with wear-resistant rope drums and rollers, these ropes make it possible to produce an extremely compact rope drive without making any sacrifices in terms of reliability and durability.

### **Electrics**

The control systems used for ABUS wire rope hoists feature proven technology and are of modular design, covering a very wide operating range. All motion functions are designed for twostage pole change operation. The systems are designed for ease of installation and maintenance and reliable operation, with fuseless circuitry, ducted wiring and nonscrewed terminals.

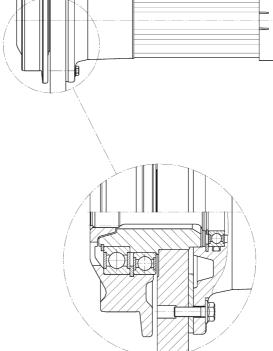


# Supporting structure, trolleys and drive systems

The hoist types described on pages 8 to 11 are the result of integrating standard hoists in chassis designed for different applications and combining them with various types of travelling gear. Compact dimensions, low headroom dimensions, favourable end approach dimensions, practicality and quality are outstanding features of all these hoists. In the case of crab units, the supporting structure is connected to the end carriages by machined joints and bolts, allowing accurate wheel positioning to precision engineering standards. In addition, articulated end carriage joints ensure that all four wheels are always firmly positioned on the tracks and that the wheel loads on the crane bridge

are properly distributed in accordance with the structural design of the system.

The travelling gear includes flanged wheels with roller bearings. In combination with individual drive systems, they form compact direct drive units requiring almost no maintenance. As regards mains operation, pole change cylindricalrotor motors with smooth start-up characteristics, additional balance weights on the motor shaft and integrated disk brakes make for smooth acceleration and braking almost unaffected by the load on the system. Other optional features available for even smoother running include smooth starting units and smooth switching relays.

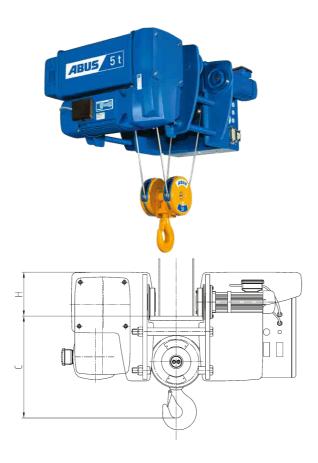


# ABUS GM wire rope hoists for single-girder cranes

# Type E – monorail hoist

A compact designed monorail hoist with low headroom dimensions and two direct drive cross travel motors. The cross travel trolley is adjustable to suit various flange widths. These most cost effective and frequently ordered hoists have a load range from 1 t to 16 t SWL.

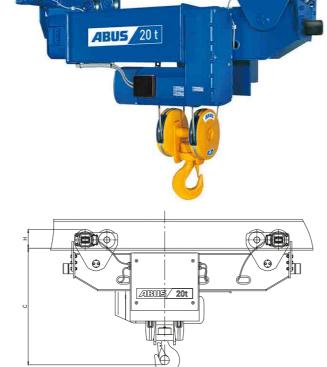
Model	Reeving	Load cap. (t)	Н	ook pa (m)	ıth	C (mm)	H (mm)
GM 800	4/1	3,2	6	9	-	400	176
GM 1000	2/1	2,5	12	18	24	567	196
	4/1	5,0	6	9	-	500	196
GM 2000	2/1	3,2	12	18	24	580	213
	4/1	6,3	6	9	-	500	213
GM 3000	2/1	6,3	12	20	30	665	251
	4/1	10,0	6	10	15	580	251
	4/1	12,5	6	10	-	580	251
GM 5000	2/1	10,0	12	20	30	830	273
	4/1	16,0	6	10	-	825	273
GM 6000	2/1	10,0	12	20	-	830	293
	2/1	12,5	12	-	-	830	293



# Type U – monorail hoist with twin trolleys

A monorail hoist with twin trolleys for high load capacities and long hook paths. Cross travel trolley designed for direct drive without exposed reduction gearing. As the load is distributed over eight wheels, ordinary rolled section beams can be used for monorail track applications. With short spans, even high-load cranes can be operated on ordinary rolled section beams using this hoist. Load capacity range: 6.3 t to 25 t.

Model	Reeving	Load cap. (t)		Hook (n	patin)	h	C (mm)	H (mm)
GM 5000	4/1	20,0	6	10	15	18,5	1132	180
GM 6000	2/1	12,5	12	20	30	37	1256	180
	4/1	25	6	10	15	18,5	1241	180
GM 7000	2/1	20,0	16	30	45	-	1615	180



# Type S - side-mounted hoist

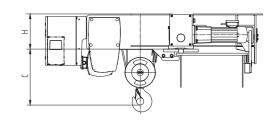
With its optimized hook height, this hoist, which can be used on crane bridges with a span of up to 35 m or more, has advantages over other types in terms of investment return.

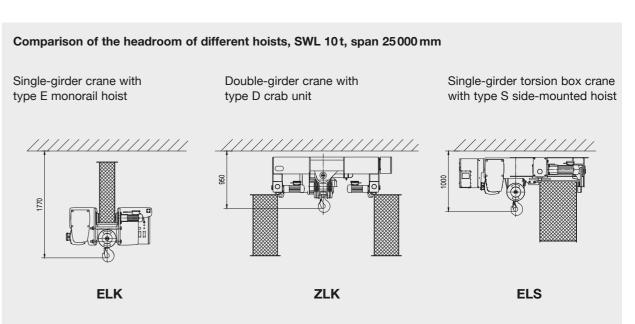
- Compared with a single-girder crane using a type E monorail hoist, the building height can be reduced.
- Compared with a double-girder crane of about the same height, the loads on the crane track and the building are significantly lower.



Support rollers with swivel mount

Model	Reeving	Load cap. (t)	Н	ook pa (m)	ath	C (mm)	H (mm)
GM 800	4/1	3,2	6	9	-	343	250
GM 1000	4/1	5,0	6	9	-	420	290
GM 2000	4/1	6,3	6	9	-	440	290
GM 3000	2/1	5,0	12	20	-	700	290
	4/1	10,0	6	10	15	555	360





\* Observe national regulations regarding clearance dimensions!

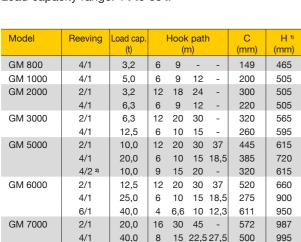
# ABUS GM crab units for double-girder cranes

# Type D - standard crab unit

A compact designed crab unit for the medium load capacity range, with articulated end carriage joints ensuring positive contact of all four wheels with the track, with two direct drive cross travel motors. Load capacity range: 1 t to 63 t.

<sup>1)</sup> Only for poleswitchable electrics with smallest gauge width

<sup>2</sup>True vertical lift (without hook movement or turn)



8/2 2 40,0 4,2 9 14,2 - 521 1020 Low headroom version DA on application

4/2 2)

6/1

20,0

7,3 17 27,3 -

63,0 5,3 10 15 -

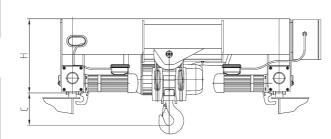
236

897

987

1218

# ABUS 25t



carriage joint

# Type DA – low headroom crab unit

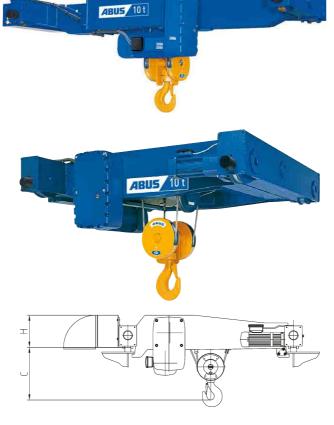
In contrast to type D, the supporting member with the hoist between the end carriages is equipped with articulated joints. The hoist headroom is therefore reduced to a minimum. This is the option to use where very little space is available above the crane, as an alternative to type DQA, also a low headroom option.

# Type DQA - ultra low headroom crab unit

An ultra low headroom crab unit with the rope drum axis in the direction of cross travel, articulated end carriage joints ensuring positive contact of all four wheels with the track, two direct drive cross travel motors. Load capacity range: 1 t to 40 t.

1) Only for poleswitchable electrics

Model	Reeving	Load cap. (t)	Н	ook pa (m)	ıth	C (mm)	H <sup>1)</sup> (mm)
GM 2000	2/1	3,2	12	18	-	520	275
	4/1	6,3	6	9	-	445	275
GM 3000	2/1	6,3	12	20	-	640	270
	4/1	12,5	6	10	-	555	270
GM 5000	2/1	10,0	12	20	-	810	270
	4/1	20,0	6	10	15	715	305
GM 6000	2/1	12,5	12	20	-	870	270
	4/1	25,0	6	10	15	755	380
GM7000	4/1	40,0	8	15	-	970	545



# Type Z - twin barrel crab unit

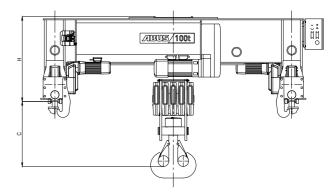
A compact designed crab unit with twin barrels and articulated end carriage joints ensuring positive contact of all four wheels with the track, two direct drive cross travel motors. Load capacity range: 8 t to 120 t.

Model	Reeving	Load cap. (t)			k path m)		C (mm)	H <sup>1)</sup> (mm)
GM 5000	4/2	20,0	12	20	30	37	413	985
	8/2	40,0	6	10	15	18,5	635	1060
GM 6000	4/2	25,0	12	20	30	37	419	1035
	8/2	50,0	6	10	15	18,5	643	1105
GM 7000	4/2	40,0	16	30	45	-	668	1220
	6/2	63,0	10,6	20	30	36	897	1218
	8/2	80,0	5	15	22,5	27,5	915	1275
	10/2	100,0	12	18	22	-	960	1265
	12/2	120,0	15	18	-	-	1400	1200

Low headroom version ZA available on application



1) Only for poleswitchable electrics with smallest gauge width



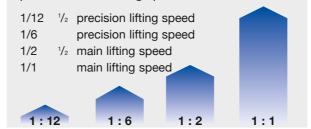
# Type ZA – low headroom twin barrel crab unit

In contrast to type Z, the supporting member with the hoist between the end carriages is equipped with articulated joints. The hoist headroom is therefore reduced to a minimum. This is the option to use where very little headroom is available above the crane.

# Vario-Speed for type Z

Vario-Speed offers four different lifting speeds for twin barrel hoists. This feature is obtained by operating the two pole change hoist motors either together or alternately.

The operating times of the hoist motors in alternating operation are controlled by special software as a function of travel, taking into consideration the maximum rope deflection allowed. Four lifting speeds are obtained by combining parallel and alternating operation.





# Cross travel drives for type Z



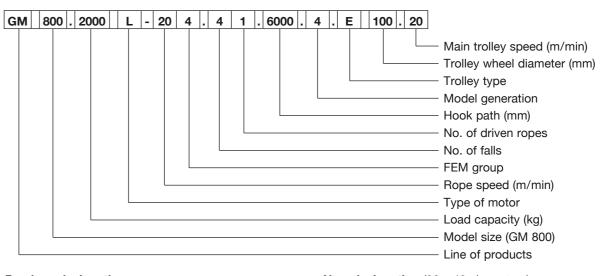
Wheel diameter
≤ 280 mm
Epicyclic geared
motors



Wheel diameter ≥ 350 mm Flat-geared motors

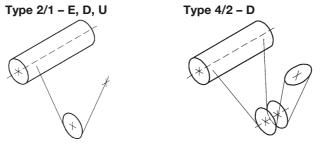
# ABUS GM wire rope hoists: special designs **ABUS** 20 t ABUS 10t A number of special designs are available for various applications. Our specialist staff will be pleased to advise you.

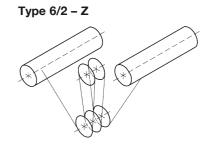
# **Explanation of type designation**

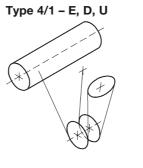


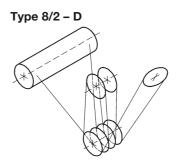
Previous designation: GM 820 L6-204.41.06.3.E **New designation** (36 – 43 characters): GM 800.2000L-204.41.6000.4.E 100.20

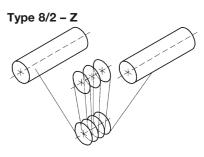
# Reeving of the ABUS electric wire rope hoists

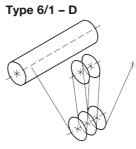


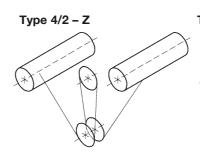


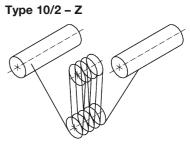


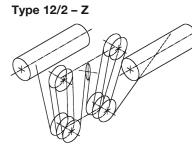












# A subject you cannot afford to neglect: drive group (FEM group) selection

Apart from the type of hoist required, the load capacity, In addition to the mean working time per day, t<sub>m</sub> (total the hook path and the lifting speed, the drive or FEM group is one of the main criteria to consider when selecting a hoist. The drive group must be selected to ensure that the hoist is used for its intended purpose. Standard hoists are normally designed for a mean theoretical service life of 10 years, subject to operation in accordance with FEM 9.511. If the drive group selected is not appropriate in view of actual service conditions, the actual service life may be considerably shorter than 10 years. The results are excessive expenditure for maintenance, repairs and overhauls.

The crane operator is under an obligation to take appropriate action to ensure that the expended portion of the service life does not exceed the theoretical service life stated in the operating instructions. When the theoretical service life has expired, the hoist must be decommissioned. Continued operation is allowed if it has been determined that there are no objections to continued operation and the conditions for continued operation have been defined. Normally, a full overhaul of the hoist will be required. In general, the inspector requires the hoist to be overhauled.

The objective of these requirements is to ensure that each hoist is only operated within its safe working period (S.W.P.).

The following table indicates the theoretical service life D in hours for FEM groups 1Bm, 1Am, 2m, 3m and 4m.

	Drive group	1Bm/M3	1Am/M4	2m/M5	3m/M6	4m/M7
Line	load spectrum	1	Theoretic	al service	line D (h	)
1	light	3 200	6300	12500	25000	50000
2	medium	1 600	3 200	6300	12500	25000
3	heavy duty	800	1 600	3200	6300	12500
4	verv heavy duty	400	800	1600	3 2 0 0	6300

hours cumulated of operation of the hoist per day), the correct assessment of the load spectrum is essential for selecting the appropriate drive group. The value t<sub>m</sub> is given by the following equation:

2 x mean lifting height (m) x load cycles (1/h) x working time (h/day) 60 (min/h) x lifting speed (m/min)

# Mean lifting height:

the average hook travel under actual operating conditions

### Load cycles:

the average number of lifting operations per hour. A load cycle consists of one lifting and one lowering operation, i.e. two hook movements (lifting operations with an empty hook as a result of process conditions must also be taken into account in determining load cycles, but also make the load spectrum determined less severe).

### Working time:

average working time per day within which the above-mentioned average load cycles per hour are performed.

### Lifting speed:

average lifting speed (normally the maximum lifting speed) at which the load cycles are performed.

The selection of the next highest FEM group results in a doubling of the theoretical service life if the operating conditions assumed remain unchanged.

FEM 9.755 gives more detailed information on this complex subject. We would be pleased to send you our ABUS planning service leaflet for determining the correct FEM group on request.

If the mean working time tm and the load spectrum are known, the correct drive group in accordance with DIN 15020 or FEM 9.755 can be selected using the following table.

Load spectrum	Definition of load spectrum		N	lean working	time t <sub>m</sub> per	working day	in h
1 (light)	(k ≤ 0.50) only operated at maximum load in exceptional cases, mainly operated at very low load, small dead load	010 50 100 00 100 100 100 1	≤ 2	2 – 4	4 – 8	8 – 16	> 16
2 (medium)	$\begin{array}{l} (0.50 < k \leq 0.63) \\ \text{operated quite frequently at maximum} \\ \text{load, operated continuously at low} \\ \text{load, medium dead load} \end{array}$	2014,2 33,3 30 100  20  27  27  27  27  28  29  29  20  20  20  20  20  20  20  20	≤ 1	1 – 2	2 – 4	4 – 8	8 – 16
3 (heavy duty)	$(0.63 < k \le 0.80)$ operated frequently at maximum load, operated continuously at medium load, heavy dead load	No. of operant time	≤ 0,5	0,5 – 1	1 – 2	2 – 4	4 – 8
4 (very heavy duty)	$(0.80 < k \le 1)$ operated regularly at maximum load, very heavy dead load	90 90 117 XXIII 90 90 90 90 90 90 90 90 90 90 90 90 90	≤ 0,25	0,25 – 0,5	0,5 – 1	1 – 2	2 – 4
Drive/FEM group in	accordance with DIN 15020 or FEM 9.511		1Bm	1Am	2m	3m	4m

# ABUS wire rope hoist selection table

ABUS	wire ro	pe h	oist	selection table	for monorail hoists, t	ype E / t	ype	S		
SWL				Reeving 4/1					Reeving	2/1
kg	Туре	FEM	ISO	Hook path m	V <sub>hoist</sub> m/min	Туре	FEM	ISO	Hook path m	V <sub>hoist</sub> m/min
1000	GM 810	4m	M7	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 1010*	4m	M7	12; 18; 24	16/2.6; 12.5/2; 10/1.6; 8/1.3
1250	GM 812	4m	M7	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 1012*	4m	M7	12; 18; 24	16/2.6; 12.5/2; 10/1.6; 8/1.3
1600	GM 816	4m	M7	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 1016*	3m	M6	12; 18; 24	16/2.6; 12.5/2; 10/1.6; 8/1.3
2000	GM 820	3m	M6	6; 9	8/1.3; 6.3/1	GM 2016*	3m	M6	12; 18; 24	16/2.6; 12.5/2; 10/1.6; 8/1.3
	GM 820	4m	M7	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 1020*	3m	M6	12; 18; 24	16/2.6; 12.5/2; 10/1.6; 8/1.3
	GM 1020	4m	M7	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 2020*	3m	M6	12; 18; 24	16/2.6; 12.5/2; 10/1.6; 8/1.3
2500	GM 825	2m	M5	6; 9	6.3/1	GM 1025*	2m	M5	12; 18; 24	12.5/2; 10/1.6; 8/1.3
	GM 825	3m	M6	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 2025*	2m	M5	12; 18; 24	16/2.6; 12.5/2; 10/1.6; 8/1.3
	GM 1025	4m	M7	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 3025	4m	M7	12; 20; 30*	16/2.6; 12.5/2; 10/1.6; 8/1.3
3200	GM 832	2m	M5	6; 9	6.3/1; 5/0.8; 4/0.66	GM 2032*	1Am	M4	12; 18; 24	12.5/2; 10/1.6; 8/1.3
	GM 1032	3m	M6	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 3032	3m	M6	12; 20; 30*	12.5/2; 10/1.6
	GM 2032	3m	M6	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 3032	4m	M7	12; 20; 30*	16/2.6; 12.5/2; 10/1.6; 8/1.3
4000	GM 1040	3m	M6	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 3040	2m	M5	12; 20; 30*	10/1.6
	GM 2040	3m	M6	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 3040	3m	M6	12; 20; 30*	16/2.6; 12.5/2; 10/1.6; 8/1.3
	GM 3040	4m	M7	6; 10; 15	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 5040*	3m	M6	12; 20; 30	16/2.6
						GM 5040*	4m	M7	12; 20; 30	16/2.6; 12.5/2; 10/1.6; 8/1.3
5000	GM 1050	2m	M5	6; 9	6.3/1; 5/0.8; 4/0.66	GM 3050	2m	M5	12; 20; 30*	12.5/2; 10/1.6;8/1.3
	GM 2050	2m	M5	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 5050*	3m	M6	12; 20; 30	16/2.6; 12.5/2; 10/1.6; 8/1.3
	GM 3050	4m	M7	6; 10; 15	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 6050*	3m	M6	12; 20	16/2.6
						GM 6050*	4m	M7	12; 20	12.5/2; 10/1.6; 8/1.3
6300	GM 2063	1Am	M4	6; 9	6.3/1; 5/0.8; 4/0.66	GM 3063*	1Am	M4	12; 20; 30	10/1.6; 8/1.3
	GM 3063	3m	M6	6; 10; 15	6.3/1; 5/0.8	GM 5063*	2m	M5	12; 20; 30	16/2.6
	GM 3063	4m	M7	6; 10; 15	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 5063*	3m	M6	12; 20; 30	12.5/2; 10/1.6; 8/1.3
						GM 6063*	2m	M5	12; 20	16/2.6
						GM 6063*	3m	M6	12; 20	12.5/2; 10/1.6; 8/1.3
8000	GM 3080	2m	M5	6; 10; 15	5/0.8	GM 5080*	2m	M5	12; 20; 30	12.5/2; 10/1.6; 8/1.3
	GM 3080	3m	M6	6; 10; 15	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 6080*	2m	M5	12; 20	12.5/2
						GM 6080*	3m	M6	12; 20	10/1.6; 8/1.3
10000	GM 3100	2m	M5	6; 10; 15	6.3/1; 5/0.8; 4/0.66	GM 5100*	1Am	M4	12; 20; 30	10/1.6; 8/1.3
	GM 5100	3m	M6	6; 10	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 6100*	2m	M5	12; 20	10/1.6; 8/1.3
12500	GM 3125*	1Am	M4	6; 10	5/0.8; 4/0.66	GM 6125*	1Am	M4	12	8/1.3
	GM 5125*	2m	M5	6; 10	8/1.3; 6.3/1; 5/0.8; 4/0.66					
16000	GM 5160*	1Am	M4	6; 10	6.3/1; 5/0.8; 4/0.66					

SWL				Reeving 4/1					Reeving 2	2/1
kg	Туре	FEM	ISO	Hook path m	V <sub>hoist</sub> m/min	Туре	FEM	ISO	Hook path m	V <sub>hoist</sub> m/min
5000						GM 6050	3m	M6	12; 20; 30; 37	16/2.6
						GM 6050	4m	M7	12; 20; 30; 37	12.5/2; 10/1.6; 8/1.3
6300						GM 6063	2m	M5	12; 20; 30; 37	16/2.6
						GM 6063	3m	M6	12; 20; 30; 37	12.5/2; 10/1.6; 8/1.3
8000	GM 5080	3m	M6	6; 10; 15; 18.5	8/1.3	GM 6080	2m	M5	12; 20; 30; 37	12.5/2
	GM 5080	4m	M7	6; 10; 15; 18.5	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 6080	3m	M6	12; 20; 30; 37	10/1.6; 8/1.3
10000	GM 5100	3m	M6	6; 10; 15; 18.5	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 6100	2m	M5	12; 20; 30; 37	10/1.6; 8/1.3
	GM 6100	3m	M6	6; 10; 15; 18.5	8/1.3	GM 7100	3m	M6	16; 30; 45;	16/2.7; 12.5/2; 10/1.6; 8/1.
	GM 6100	4m	M7	6; 10; 15; 18.5	6.3/1; 5/0.8; 4/0.66					
12500	GM 5125	2m	M5	6; 10; 15; 18.5	8/1.3	GM 6125	1Am	M4	12; 20; 30; 37	8/1.3
	GM 5125	3m	M6	6; 10; 15; 18.5	6.3/1; 5/0.8; 4/0.66	GM 7125	2m	M5	16; 30; 45;	16/2.7
	GM 6125	2m	M5	6; 10; 15; 18.5	8/1.3	GM 7125	3m	M6	16; 30; 45;	12.5/2; 10/1.6; 8/1.3
	GM 6125	3m	M6	6; 10; 15; 18.5	6.3/1; 5/0.8; 4/0.66					
16000	GM 5160	2m	M5	6; 10; 15; 18.5	6.3/1; 5/0.8; 4/0.66	GM 7160	2m	M5	16; 30; 45;	12.5/2; 10/1.6; 8/1.3
	GM 6160	2m	M5	6; 10; 15; 18.5	6.3/1					
	GM 6160	3m	M6	6; 10; 15; 18.5	5/0.8; 4/0.66					
20000	GM 5200	1Am	M4	6; 10; 15; 18.5	5/0.8; 4/0.66	GM 7200	1Am	M4	16; 30; 45;	10/1.6; 8/1.3
	GM 6200	2m	M5	6; 10; 15; 18.5	5/0.8; 4/0.66					
25000	GM 6250	1Am	M4	6; 10; 15; 18.5	4/0.66					

All data may be subject to changes in technical specifi-

with type S

# ABUS wire rope hoist selection table

SWL				Reeving 4/1 (6	/1)				Reeving 2	2/1
kg	Туре	FEM	ISO	Hook path m	V <sub>hoist</sub> m/min	Туре	FEM	ISO	Hook path m	V <sub>hoist</sub> m/min
1000	GM 810	4m	M7	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 2010	4m	M7	12; 18; 24	16/2.6; 12.5/2; 10/1.6; 8/1.3
1250	GM 812	4m	M7	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 2012	4m	M7	12; 18; 24	16/2.6; 12.5/2; 10/1.6; 8/1.3
1600	GM 816	4m	M7	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 2016	3m	M6	12; 18; 24	16/2.6; 12.5/2; 10/1.6; 8/1.
2000	GM 820	3m	M6	6; 9	8/1.3; 6.3/1	GM 2020	3m	M6	12; 18; 24	16/2.6; 12.5/2; 10/1.6; 8/1.
	GM 820	4m	M7	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66					
	GM 1020	4m	M7	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66					
2500	GM 825	2m	M5	6; 9	6.3/1	GM 2025	2m	M5	12; 18; 24	16/2.6; 12.5/2; 10/1.6; 8/1.
	GM 825	3m	M6	6; 9	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 3025	4m	M7	12; 20; 30	16/2.6; 12.5/2; 10/1.6; 8/1.
	GM 1025	4m	M7	6; 9; 12	8/1.3; 6.3/1; 5/0.8; 4/0.66					
3200	GM 832	2m	M5	6; 9	6.3/1; 5/0.8; 4/0.66	GM 2032	1Am	M4	12; 18; 24	12.5/2; 10/1.6; 8/1.3
	GM 1032	3m	M6	6; 9; 12	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 3032	3m	M6	12; 20; 30	12.5/2; 10/1.6;
	GM 2032	3m	M6	6; 9; 12	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 3032	4m	M7	12; 20; 30	16/2.6; 12.5/2; 10/1.6; 8/1.
4000	GM 1040	3m	M6	6; 9; 12	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 3040	2m	M5	12; 20; 30	10/1.6
	GM 2040	3m	M6	6; 9; 12	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 3040	3m	M6	12; 20; 30	16/2.6; 12.5/2; 10/1.6; 8/1.
	GM 3040	4m	M7	6; 10; 15	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 5040	3m	M6	12; 20; 30; 37	16/2.6
		_			/	GM 5040	4m	M7	12; 20; 30; 37	16/2.6; 12.5/2; 10/1.6; 8/1.
5000	GM 1050	2m	M5	6; 9; 12	6.3/1; 5/0.8; 4/0.66	GM 3050	2m	M5	12; 20; 30	12.5/2; 10/1.6; 8/1.3
	GM 2050	2m	M5	6; 9; 12	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 5050	3m	M6	12; 20; 30; 37	16/2.6; 12.5/2; 10/1.6; 8/1.
	GM 3050	4m	M7	6; 10; 15	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 6050	3m	M6	12; 20; 30	16/2.6
						GM 6050	3m	M6	37	16/2.6; 12.5/2; 10/1.6; 8/1.
6300	GM 2063	1Am	M4	6; 9; 12	6.3/1; 5/0.8; 4/0.66	GM 6050 GM 3063	4m 1Am	M7 M4	12; 20; 30 12; 20; 30	12.5/2; 10/1.6; 8/1.3 10/1.6; 8/1.3
0300	GM 3063	3m	M6	6; 10; 15	6.3/1; 5/0.8	GM 5063	2m	M5	12, 20, 30	16/2.6
	GM 3063	4m	M7	6; 10; 15	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 5063	3m	M6	12; 20; 30; 37	12.5/2; 10/1.6; 8/1.3
	GIVI 0000	7111	1017	0, 10, 10	0/1.0, 0.0/1, 0/0.0, 4/0.00	GM 6063	2m	M5	12; 20; 30; 37	16/2.6
						GM 6063	3m	M6	12; 20; 30; 37	12.5/2; 10/1.6; 8/1.3
8000	GM 3080	2m	M5	6; 10; 15	5/0.8	GM 5080	2m	M5	12; 20; 30; 37	12.5/2; 10/1.6; 8/1.3
	GM 3080	3m	M6	6; 10; 15	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 6080	2m	M5	12; 20; 30	12.5/2
	GM 5080	3m	M6	6; 10; 15; 18.5	8/1.3	GM 6080	2m	M5	37	12.5/2; 10/1.6; 8/1.3
	GM 5080	4m	M7	6; 10; 15; 18.5	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 6080	3m	M6	12; 20; 30	10/1.6; 8/1.3
						GM 7080	4m	M7	16; 30; 45	16/2.6; 12.5/2; 10/1.6; 8/1.
10000	GM 3100	2m	M5	6; 10; 15	6.3/1; 5/0.8; 4/0.66	GM 5100	1Am	M4	12; 20; 30; 37	10/1.6; 8/1.3
	GM 5100	3m	M6	6; 10; 15; 18.5	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 6100	2m	M5	12; 20; 30; 37	10/1.6; 8/1.3
	GM 6100	3m	M6	6; 10; 15; 18.5	8/1.3	GM 7100	2m	M5	16; 30; 45	16/2.6
	GM 6100	4m	M7	6; 10; 15; 18.5	6.3/1; 5/0.8 4/0.66	GM 7100	3m	M6	16; 30; 45	16/2.6; 12.5/2; 10/1.6; 8/1.
12500	GM 3125	1Am	M4	6; 10; 15	5/0.8; 4/0.66	GM 6125	1Am		12; 20; 30; 37	8/1.3
	GM 5125	2m	M5	6; 10; 15; 18.5	6.3/1; 8/1.3; 5/0.8; 4/0.66	GM 7125	2m	M5	16; 30; 45	16/2.6; 12.5/2
	GM 5125	3m	M6	6; 10; 15; 18.5	6.3/1; 5/0.8; 4/0.66	GM 7125	3m	M6	16; 30; 45	12.5/2; 10/1.6; 8/1.3
	GM 6125	2m	M5	6; 10; 15; 18.5	8/1.3					
40000	GM 6125	3m	M6	6; 10; 15; 18.5	6.3/1; 5/0.8; 4/0.66	014.7400		1.45	10 00 15	10.5/0.10/1.0.0/1.0
16000	GM 5160	1Am		6; 10; 15; 18.5	6.3/1; 5/0.8; 4/0.66	GM 7160	2m	M5	16; 30; 45	12.5/2; 10/1.6; 8/1.3
	GM 5160	2m	M5	6; 10; 15; 18.5 6: 10: 15: 18.5	6.3/1; 5/0.8; 4/0.66					
	GM 6160	2m	M5	6; 10; 15; 18.5	6.3/1					
	GM 6160 GM 7160	3m	M6	6; 10; 15; 18.5	5/0.8; 4/0.66					
20000	GM 5200	4m 1Am	M7 M4	8; 15; 22.5; 27.5 6: 10: 15: 18.5	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 7200	1Am	MA	16; 30; 45	10/1.6; 8/1.3
20000	GM 6200	2m	M5	6; 10; 15; 18.5 6; 10; 15; 18.5	5/0.8; 4/0.66 5/0.8; 4/0.66	GIVI 7200	174111	1714	10, 50, 45	10/1.0, 0/1.0
	GM 7200	2m	M5	8; 15; 22.5; 27.5	8/1.3					
	GM 7200	3m	M6	8; 15; 22.5; 27.5	8/1.3; 6.3/1; 5/0.8; 4/0.66					
25000	GM 6250	1Am		6; 10; 15; 18.5	4/0.66					
	GM 7250	2m	M5	8; 15; 22.5; 27.5	8/1.3; 6.3/1					
	GM 7250	3m	M6	8; 15; 22.5; 27.5	6.3/1; 5/0.8; 4/0.66					
32000			M4	4; 6.6; 10; 12.3	3.3/0.5; 2.7/0.4					
	GM 7320	2m	M5	8; 15; 22.5; 27.5	6.3/1; 5/0.8; 4/0.66					
40000	(GM 6400)			8; 15; 22.5; 27.5	2.7/0.4					
	1.	1Am		8; 15; 22.5; 27.5	5/0.8; 4/0.66					
50000	(GM 7500)			5.3;10; 15	4.1/0.6; 3.3/0.5; 2.6/0.4					
63000	(GM 7630)			5.3;10; 15	3.3/0.5; 2.6/0.4					

subject to changes in technical specifi

All data may be

# ABUS wire rope hoist selection table

1) Type in true vertical lift (without hook swinging or turning)

ABUS	wire ro	oe h	oist	selection table	for crab units, type D	/ type [	)B			
SWL				Reeving 8/2	n				Reeving 4	/2 1)
kg	Туре	FEM	ISO	Hook path m	V <sub>hoist</sub> m/min	Type	FEM	ISO	Hook path m	V <sub>hoist</sub> m/min
6300						GM 5063	3m	M6	9; 15; 20	10/1.6; 8/1.3
8000						GM 5080	2m	M5	9; 15; 20	10/1.6; 8/1.3
						GM 7080	4m	M7	7.3; 17; 27.3	16/2.6; 12.5/2; 10/1.6; 8/1.3
10000						GM 5100	1Am	M4	9; 15; 20	10/1.6; 8/1.3
						GM 7100	2m	M5	7.3; 17; 27.3	16/2.6
						GM 7100	3m	M6	7.3; 17; 27.3	16/2.6; 12.5/2; 10/1.6; 8/1.3
12500						GM 7125	2m	M5	7.3; 17; 27.3	16/2.6; 12.5/2
						GM 7125	3m	M6	7.3; 17; 27.3	12.5/2; 10/1.6; 8/1.3
16000	GM 7160	4m	M7	4.2; 9; 14.2	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 7160	2m	M5	7.3; 17; 27.3	12.5/2; 10/1.6; 8/1.3
20000	GM 7200	2m	M5	4.2; 9; 14.2	8/1.3	GM7200	1Am	M4	7.3; 17; 27.3	10/1.6; 8/1.3
	GM 7200	3m	M6	4.2; 9; 14.2	8/1.3; 6.3/1; 5/0.8; 4/0.66					
25000	GM 7250	2m	M5	4.2; 9; 14.2	8/1.3; 6.3/1					
	GM 7250	3m	M6	4.2; 9; 14.2	6.3/1; 5/0.8; 4/0.66					
32000	GM 7320	2m	M5	4.2; 9; 14.2	6.3/1; 5/0.8; 4/0.66					
40000	GM 7400	1Am	M4	4.2: 9: 14.2	5/0.8: 4/0.66					

SWL				Reeving 8/2 (6/2); [1	0/2] <u>12/2</u>				Reeving 4	4/2
	Туре	FEM	ISO	Hook path	V <sub>hoist</sub>	Туре	FEM	ISO	Hook path	V <sub>hoist</sub>
kg				m	m/min				m	m/min
8000						GM 5080	3m	M6	12; 20; 30; 37	16/2.6
						GM 5080	4m	M7	12; 20; 30; 37	
10000						GM 5100	3m	M6	12; 20; 30; 37	
						GM 6100	3m	M6	12; 20; 30; 37	16/2.6
12500						GM 6100 GM 5125	4m 2m	M7 M5	12; 20; 30; 37	12.5/2; 10/1.6; 8/1.3 16/2.6
12500						GM 5125	3m	M6	12; 20; 30; 37 12; 20; 30; 37	12.5/2; 10/1.6; 8/1.3
						GM 6125	2m	M5	12; 20; 30; 37	16/2.6
						GM 6125	3m		12; 20; 30; 37	12.5/2; 10/1.6; 8/1.3
16000	GM 5160	3m	M6	6; 10; 15; 18.5	8/1.3	GM 5160	2m	M5	12; 20; 30; 37	12.5/2; 10/1.6; 8/1.3
	GM 5160	4m	M7	6; 10; 15; 18.5	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 6160	2m	M5	12; 20; 30; 37	12.5/2
						GM 6160	3m	M6	12; 20; 30; 37	10/1.6; 8/1.3
						GM 7160	4m	M7	16; 30; 45	16/2.6; 12.5/2; 10/1.6; 8/1.3
20000	GM 5200	3m	M6	6; 10; 15; 18.5	8/1.3; 6.3/1; 5/0.8; 4/0.66	GM 5200	1Am	M4	12; 20; 30; 37	10/1.6; 8/1.3
	GM 6200	3m	M6	6; 10; 15; 18.5	8/1.3	GM 6200 GM 7200	2m	M5	12; 20; 30; 37	10/1.6; 8/1.3
	GM 6200	4m	M7	6; 10; 15; 18.5	6.3/1; 5/0.8; 4/0.66	GM 7200	2m 3m	M5 M6	16; 30; 45 16; 30; 45	16/2.6   16/2.6; 12.5/2; 10/1.6; 8/1.3
25000	GM 5250	2m	M5	6; 10; 15; 18.5	8/1.3	GM 6250	1Am	M4	12; 20; 30; 37	8/1.3
20000	GM 5250	3m	M6	6; 10; 15; 18.5	6.3/1; 5/0.8; 4/0.66	GM 7250	2m	M5	16; 30; 45	16/2.6; 12.5/2
	GM 6250	2m	M5	6; 10; 15; 18.5	8/1.3	GM 7250	3m	M6	16; 30; 45	12.5/2; 10/1.6; 8/1.3
	GM 6250	3m	M6	6; 10; 15; 18.5	6.3/1; 5/0.8; 4/0.66				, ,	
	(GM 7250)	4m	M7	10.6; 20; 30; 36	10.4/1.6; 8.2/1.2; 6.6/1; 5.2/0.8					
32000	GM 5320	2m	M5	6; 10; 15; 18.5	6.3/1; 5/0.8; 4/0.66	GM 7320	2m	M5	16; 30; 45	12.5/2; 10/1.6; 8/1.3
	GM 6320	2m 3m	M5 M6	6; 10; 15; 18.5	6.3/1					
	GM 6320 (GM 7320)	2m	M5	6; 10; 15; 18.5 10.6; 20; 30; 36	5/0,8; 4/0.66 10.4/1.6					
	(GM 7320)	3m	M6	10.6; 20; 30; 36	10.4/1.6; 8.2/1.2; 6.6/1; 5.2/0.8					
	GM 7320	4m	M7	8; 15; 22.5; 27.5	8/1.3; 6.3/1; 5/0.8; 4/0.66					
40000	GM 5400	1Am	M4	6; 10; 15; 18.5	5/0,8; 4/0.66	GM 7400	1Am	M4	16; 30; 45	10/1.6; 8/1.3
	GM 6400	2m	M5	6; 10; 15; 18.5	5/0,8; 4/0.66					
	(GM 7400)	2m	M5	10.6; 20; 30; 36	10.4/1.6; 8.2/1.2					
	(GM 7400)	3m	M6	10.6; 20; 30; 36	8.2/1.2; 6.6/1; 5.2/0.8					
	GM 7400 GM 7400	2m 3m	M5 M6	8; 15; 22.5; 27.5 8; 15; 22.5; 27.5	8/1.3 8/1.3; 6.3/1; 5/0.8; 4/0.66					
50000	GM 6500	1Am	M4	6; 10; 15; 18.5	4/0.66					
30000	(GM 7500)	2m	M5	10.6; 20; 30; 36	8.2/1.2; 6.6/1; 5.2/0.8					
	GM 7500	2m	M5	8; 15; 22.5; 27.5	8/1.3; 6.3/1					
	GM 7500	3m	M6	8; 15; 22.5; 27.5	6.3/1; 5/0.8; 4/0.66					
63000	(GM 7630)	1Am	M4	10.6; 20; 30; 36	6.6/1; 5.2/0.8					
	GM 7630 [GM 7630]	2m	M5	8; 15; 22.5; 27.5	6.3/1; 5/0.8; 4/0.66					
		2m	M5	12; 18; 22	6.3/1					
20000	[GM 7630]	3m	M6	12; 18; 22	5/0.8; 4/0.66; 3.2/0.5					
80000	GM 7800 [GM 7800]	1Am 2m	M4 M5	8; 15; 22.5; 27.5 12: 18: 22	5/0.8; 4/0.66 5/0.8: 4/0.66: 3.2/0.5					
100000	[GM 71000]			12, 16, 22	4/0.66; 3.2/0.5					
120000	GM 71200	1Bm	M3	15; 18	3.3/0.5; 2.7/0.4					

All data may be subject to changes in technical specifi-

Data for type ZA available on application

# **Accessories** ABUS wire rope hoists are equip-Signal processing feature an overload protection to measure the load, the LIS-SE hook on the basis of three-phase made while the motor is running. Both types of control unit may be equipped with an optional load display for visualizing the load. All LIS control units are equipped 0 00 Og able as an option. This ensures Load display in pendant control out easily by the operator. Current sensor Large load display

# ABUS LIS control system - the nerve centre of your ABUS wire rope hoist

ped with an intelligent LIS control system, available in two versions -LIS-SE and LIS-SV. Both versions device which reliably protects the hoist against overloading. While the LIS-SV uses a strain gauge signal calculates the current load on the current and voltage measurements

with an operation hours meter for determining the expended portion of the service life. For precise determination of the remaining service life, a load population recorder in accordance with FEM 9.755 is availsafe working periods over the entire service life of the hoist. The load population recorder is designed to allow the relevant values to be read

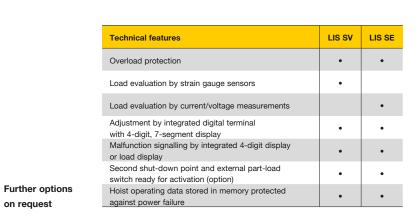
Upper block

Measurement axle

In addition to these features, LIS control units are designed for a number of other functions to ensure safe, low-maintenance operation of all ABUS wire rope hoists. The combination of actively fail-safe electric and electronic circuitry meets the highest safety requirements and is in accordance with the diversity and active fail-safe requirements of the applicable standards.

The integrated motor overcurrent protection system and the guided start-up function reliably protect the hoist motor against thermal overloading, provided that a proper use is given. If the motor current continuously exceeds the maximum value, the overcurrent protection function shuts down the motor. The guided start-up function prevents excessive inching operation when the high hoist speed is

Another function with considerable benefit to the user is regenerative braking. During each braking operation from high hoist speed, the motor is briefly operated as a generator to slow the hoist before the mechanical brakes are operated, significantly extending the service life of the brake linings.



Measurement axle

installed in anchor point cross arm

Technical features	LIS SV	LIS SE
Load totalization and monitoring for a maximum of three hoists	•	
Load display in pendant control or large load display (option)	•	•
Load population recorder to FEM 9.755 (option)	•	•
Hoist control functions	•	•
Isolated control signal circuits	•	•
Modular compact design	•	•
All connections by plug-in connectors	•	•

oad totalization and monitoring for a maximum of three hoists	•	
oad display in pendant control or large load display option)	•	•
oad population recorder to FEM 9.755 (option)	•	•
Hoist control functions	•	•
solated control signal circuits	•	•
Modular compact design	•	•
All connections by plug-in connectors	•	•

17 18

### **ABULiner frequency converter**

The ABULiner, a microprocessorcontrolled frequency converter unit, allows infinitely variable speed control. When fitted to a cross travel drive, the ramps set ensure smooth acceleration and deceleration. The ramp is adapted to the load to prevent large loads from swinging. If an ABULiner is fitted to a hoist motor, the motor can be operated at up to twice the rated maximum lifting speed, depending on the actual load (this function is optional). This feature permits significant time savings, especially on systems with large hook paths. The acceleration ramp and the braking ramp can be set separately. For applications requiring extremely low lifting speeds, such as toolmaking and mould production, the ABULiner can be installed in such a way as to operate only on the precision lifting speed. With this version, infinitely variable speed control is only possible if the precision lifting speed is selected.



### **Electronic motor control systems**

The AZS electronic smooth starting unit from ABUS, which is equally well-suited for crane and trolley travel, minimizes jolting during acceleration. The patented ABUS SU smooth switching relay is triggered each time the unit is switched from high to low speed, ensuring a significant reduction in the braking torque caused by operation of the motor as a generator and minimizing load swing. The smooth starting unit and the smooth switching relay work harmoniously in combination, making for extremely convenient operation.





# Hook block scale

For many crane operators, it is important to know what is hanging on the hook: weighed goods being charged on to customers, loading trucks, supplying production equipment with weighed material, observing safety instructions for loads or determining the weight of containers - often the ABUS hook block scale is the economically advantageous solution.

ABUS hook block scale is a digital commercial scale of Accuracy Class III with EU approval from The National Metrology Institute of Germany. The crane scale is calibrated and supplied ready for use.



# Electronic synchronization control system

The electronic synchronization control system compensates for differences in the speeds of several hoists operated together as a result of different loads.

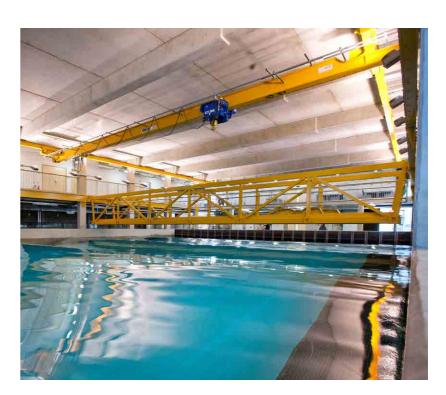
The patented unit controls two or more hoists in synchronized operation with a minimum of effort, without switching off the faster-running motor in main lifting speed. The electronic synchronization control system can be fitted inexpensively to standard hoists driven by pole change motors. No mechanical modifications or additional electronic components are needed. Differences in the levels of the lifting height are easily compensated by individual operation of the hoists before the system is switched to synchronized-speed operation. Time-consuming adjustment of the length of the individual load lifting tackles is therefore no longer necessary.



# Electric emergency lowering system for hoist motors

The emergency lowering system ensures that the load can be lowered safely even in the event of a power supply failure. If the mains power supply is interrupted, the operator can initiate controlled lowering by pressing the "lowering" button on the pendant control. The lowering operation can be stopped at any point.

During emergency lowering, power for the motor brake is supplied by a battery. To prevent uncontrolled lowering, one winding of the pole change motor is operated as a generator.



Further options on request

ABUS 19 ABUS

# **ABUS** modular wire rope hoist: **Technical Intelligence in top shape**



covers the load capacity range up to 5t, 2 fall in the range 1t - 2.5t and 4 fall from 2 t to 5 t.



The modular wire rope hoist is driven by a trolley travel motor operated with a frequency converter. The hoist drive has a 4-pole hoist motor with frequency converter control as standard. The lifting speed can be either infinitely adjustable or used to simulate pole switching. The maximum lifting speed is load-dependent and achieves double the nominal lifting speed when running empty. A patented inductive measurement technique guarantees the load measurement even when the hoist is at a standstill.



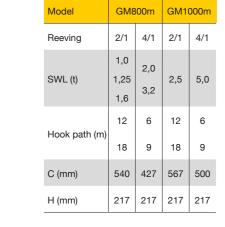
The reeving of the wire rope hoist can be converted: from 4 fall (4/1) to 2 fall (2/1) and vice versa. This is of benefit if the operating conditions change or the wire rope hoist is to be sold. The conversion is quick and easy, since the deflection roller crosshead and the fixed point crosshead are mounted through a reliable bolt connection on the trolley frame and can be easily changed as required. The ABUS modular wire rope hoist is equipped with adjustable and cushion-mounted track guide rollers as standard and thus preserves the lower flange of the crane.

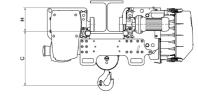


The trolley frame consists of bolted and compressed side walls. This innovative and patented type of connection from ABUS impresses with its high precision and stability.



The ABUS modular wire rope hoist has a modern, functional look, which is complemented by a very high-quality designer colour concept.







The convenient folding mechanism makes assembly of the wire rope hoist on the crane very simple.



The switch cabinet of the wire rope hoist has a modular design: all components are plug-andplay and can be purchased on the open market from the production of wellknown manufacturers - a huge service advantage!



The modular wire rope hoist is equipped with an LED matrix display, which shows various operating information of the ABUControl crane control as well as the status reports of the crane components. Errors can thus be quickly and easily identified and eliminated. The LED display shows the characters with plenty of contrast and can be easily read.

ABU5 22

# ABUControl: lifts cranes to a new level



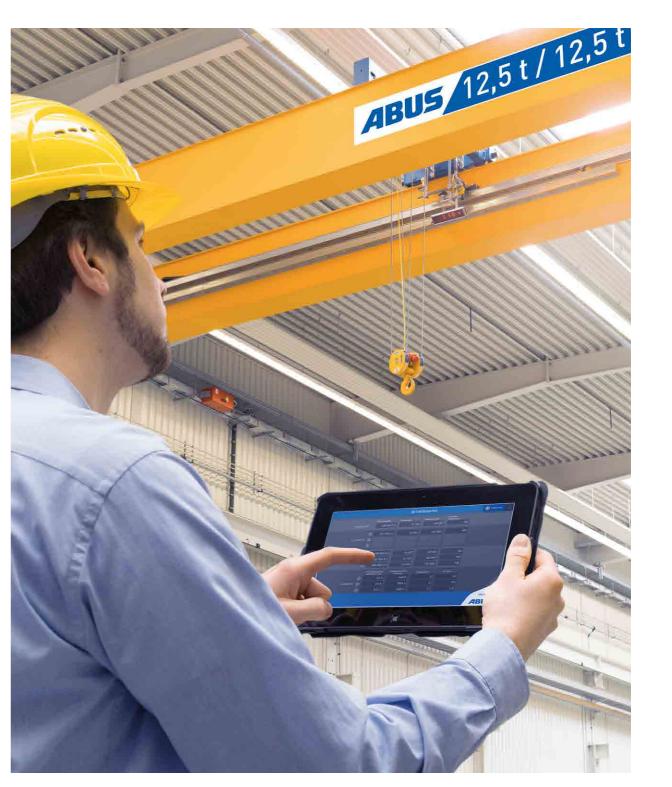
Travel profiles can be used to adapt ABUS cranes to your circumstances. Cranes with two fixed speeds move in a completely different way to cranes controlled by frequency converter, for example. Travel and hoist profiles allow cranes to be adapted to your current or required situation. This means your crane operators no longer have to adjust existing cranes and perceive the increased productivity of an additional crane system.



Operating data, settings, service information. By means of the modern KranOS interface, you can keep tabs on the crane. For wireless use with any laptop or tablet with browser. Speeding up regular annual inspections into the bargain.



ABUControl relies on tried-and-trusted freely available components from renowned electronics manufacturers. Replacement or repair requires neither 'specialist knowledge' nor 'software licences'. You remain in complete control of the crane at all times and have a free choice of service partner. ABUControl - a unique promise for simple maintenance and repairs.



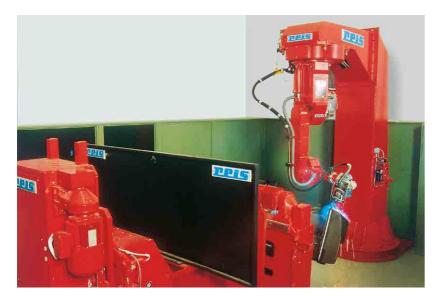
The ABUS sway control increases safety and convenience during transportation of goods in sensitive areas. Sway control is based on mathematical calculations. Travel speeds, acceleration and deceleration of crane and hoist, the hook position and length of the load lifting attachment are taken into account. Even people who rarely

operate cranes can transport loads safely with the aid of the sway control feature.

The ABUS synchronisation control of two hoists on one crane enables the safe handling of long products. Divergence of lifting speeds is prevented effectively through constant regulation even where different wire

rope hoists are used. This requires the crane to be equipped with a frequency converter for lifting. Travel speeds are regulated even on cranes which run in tandem. Two cranes, maximum of four hoists and their hoisting motions, all regulated.

# **ABUS** quality standards: Precise, modern production processes



Steel trolley frames are manufactured using a 10-axis welding robot, ensuring short processing times and constantly high welding



Advanced CNC lathes are used to turn the rope drums in one operation, an approach that ensures perfectly smooth running of the rope drums during operation.



Installation of the crab unit

# ABUS crane systems - getting into the nuts and bolts of materials handling solutions



of readily available, efficient load handling systems: jib cranes, over-And all our services are charactehead cranes, monorail trolley tracks, electric wire rope and chain hoists, a wide variety of components and, last but certainly not least, the HB-System. Our services range from the development of solutions for bespoke applications right through to implementing complete materials handling systems.

ABUS offers a comprehensive range

rised by the special ABUS attitude: we offer not only a bare product, but also practical advice and assured quality. The product guarantee which we offer is still unique in our field and individual user support and a nationwide after-sales service network with rapid, effective response are all part of the ABUS service.

**High-Performance** 

... regarding the ABUS product range can be forwarded to you on request. They are also available to view and download directly from our homepage.



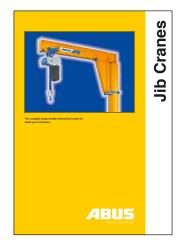




□ The Product Overview



□ Overhead cranes



□ Jib cranes



□ Electric chain hoists



☐ ABUS semi-goliath crane EHPK



☐ ABUS hook block scale

# Please send your enquiry to

fax to: +49 2261 37-247 by email to: info@abuscranes.com

Name:	
Company:	
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Postcode/Town:	
Phone:	
E-Mail:	
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Date	Signature