



# LIMITER<sup>®</sup>

Overload limiter  
for lifting units such as wire rope  
or electric chain hoists

 **VERLINDE<sup>®</sup>**  
LIFTING EQUIPMENT

# LIMITER<sup>®</sup>

## Overload limiter for lifting units such as wire rope or electric chain hoists.

Overload limiter prevent accidents occurring due to the raised load dangerously exceeding the normal value as established by the manufacturer or by the user of the lifting device. It makes a vital contribution to the safety of operatives.

The European "machines" directive (2006/42/EC) imposes the use of an overload limit switch for hoists with a capacity equal to or greater than 1000 kg.

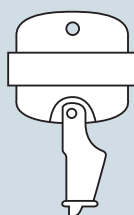
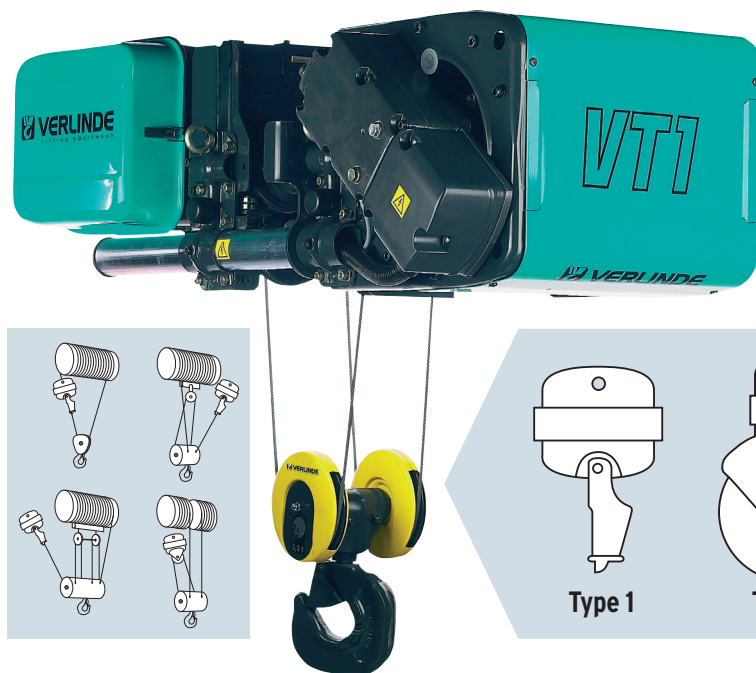
### How it works

A steel shell transmits the lifting force. The resulting deformation, proportional to the load, is amplified without friction by means of a sensitive element with no moving parts, to enable by means of a reversing switch either the blocking of the hoisting movement or actuation of an alarm once the critical load is reached.

This reversing switch carries an "Open" and a "Closed" contact, with a common point. Its interrupting capacity is 10 A at 250 V.

The device's protection rating is IP44, with IP55 available on request.

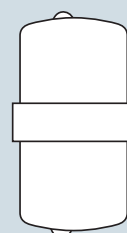
### Limiters for wire rope hoists



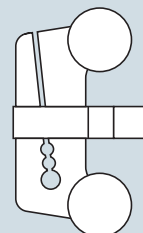
Type 1



Type 2



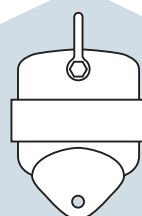
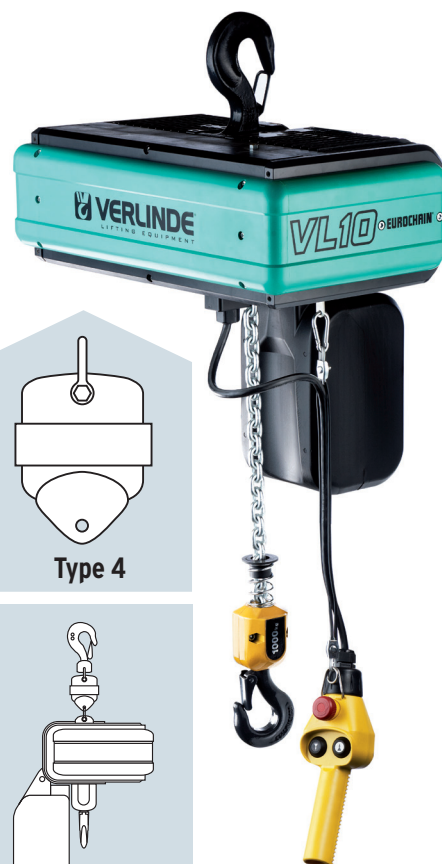
Type 3



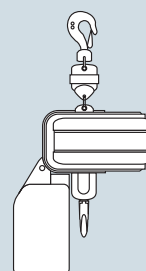
Type 5



### Limiters for chain hoists



Type 4



## ► Determining which device is required

You may, with the help of the various tables in this brochure, determine for yourself the characteristics of the device that you need and establish its dimensions, in particular the J, K or N measurements, depending on the type.

Nevertheless, our technical advisers are at your disposal to answer all your technical queries about this product; you simply need to determine and be able to communicate certain specifications of your lifting apparatus.

### ► For electric wire rope hoists :

- The nominal load of the hoist.
- Its reeving (2, 4, 6 or 2 x 2-strand).
- The diameter of the cable used.
- The type of limiter that you wish to use.

### ► For electric chain hoist :

- The nominal load of the hoist.
- The dead weight of the hoist.

## useful tips...

2, 4 or 6-falls reeving requires the use of "type 1" or "type 3" devices ; 2 x 2-falls reeving requires "type 2".

For lifting devices controlled by a direct switch connected to a control rope or pendant control box, a control switch needs to be inserted between the power supply and the reversing switch.

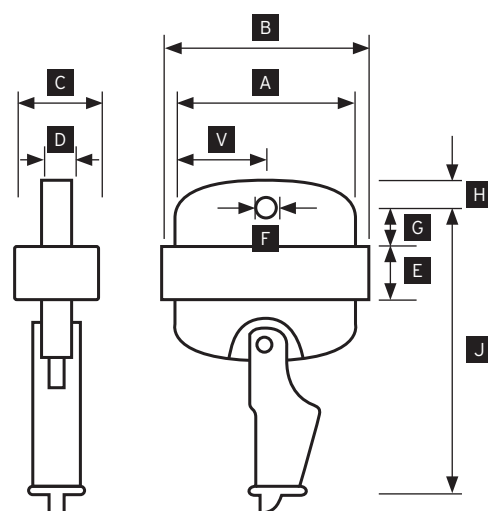
We can help you to determine which limiters you need in the case of non-standard installations. Just get in touch with our sales network.

## LIMITER type 1

For all hoists with 2-falls reeving up to 10,000 kg or 4-falls up to 20,000 kg.

This device is designed to be attached to the fixed point of any cable hoist within the range of forces indicated in the table opposite. We have sought to simplify assembly as much as possible, so that the pin for attaching the device to the fixed point is the only part that you need to take care of, and which can be held in place by cotter pins either side of the attachment.

Type	A	B	C	D	E	F	G	H	J	V
1101	126	120	56	20	63	13	34	14	220	60
1161	126	120	56	20	63	13	34	14	260	60
2101	181	175	65	25	63	20	44	24	270	87,5
2161	181	175	65	25	63	20	44	24	280	87,5
3101	237	230	76	35	63	25,5	45	30	350	115
4101	237	230	76	35	63	35	60	40	382	75



## LIMITER type 2

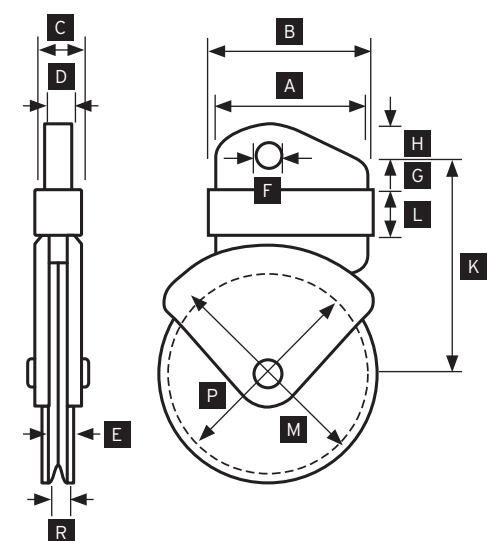
For all hoists with 2 x 2-falls reeving.

This device is equipped with a balance pulley serving as a fixed point. It is uniformly adaptable for hoists with two-ply cable.

It is attached in the same way as for the "type 1" limiter.

**Caution! The pulley is not bearing-mounted (it must not rotate).**

Type	A	B	C	D	E	F	G	H	K	L	M	P	R
1201	130	120	56	20	60	12	35	15	165	43	90	70	2,5
2201	190	175	65	25	60	20	45	25	195	65	130	105	4,5
3201	237	230	76	35	60	25	45	30	242	80	164	135	6
3251	237	230	76	35	60	25	45	30	242	80	218	185	7
4201	237	230	76	35	63	35	60	40	320	108	320	270	9

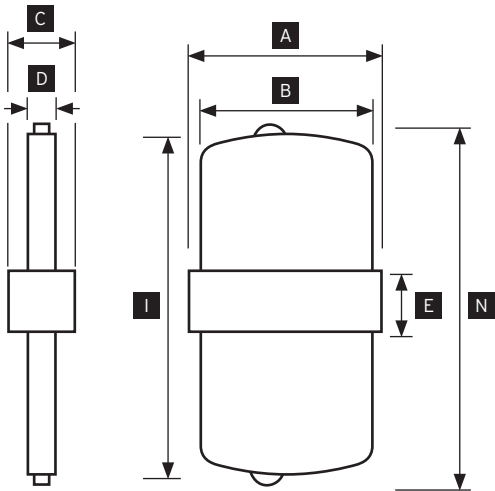


# LIMITER type 3

With no modification of the hoist and without cutting the cable.

The “type 3” limiter has been designed to prevent our customers from having to make costly modifications to their existing lifting unit. No adapters are necessary. Attaching a loop of the cable strand to the fixed point is the only operation to be carried out, along with the electrical connection. We supply the cable lugs with our device (always state the cable diameter).

Type	A	B	C	D	E	I	N
1301	130	120	56	20	60	290	300
2301	190	175	65	25	60	376	400



## General specifications of limiters for wire rope hoists

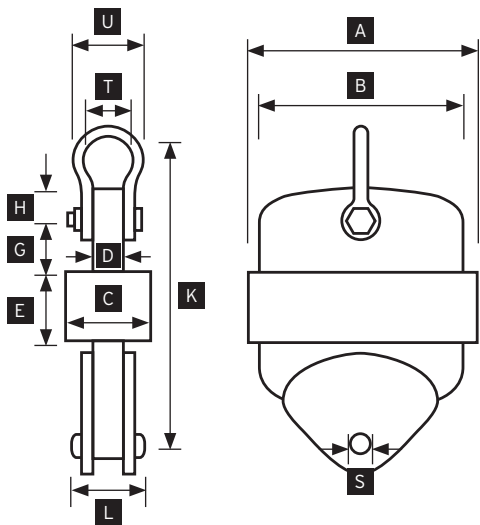
Limiter			Cable diameter	Nominal hoist load (kg)			
Type	Number	Nominal load		2 strand	4 strand	6 strand	2 x 2 strand
Type 1	1101	60 to 315 kg	3,5 to 5,5	120 to 630	240 to 1260	360 to 1890	-
Type 1	1161	60 to 315 kg	5,5 to 7	120 to 630	240 to 1260	360 to 1890	-
Type 2	1201	60 to 315 kg	3 to 4,5	-	-	-	120 to 630
Type 3	1301	60 to 315 kg	3 to 6,5	120 to 630	240 to 1260	360 to 1890	-
Type 1	2101	250 to 625 kg	6,5 to 10	500 to 1250	1000 to 2500	1500 to 3750	-
Type 1	2161	250 to 1250 kg	9 to 12,5	500 to 2500	1000 to 5000	1500 to 7500	-
Type 2	2201	250 to 1250 kg	4,5 to 8,5	-	-	-	500 to 2500
Type 3	2301	250 to 1250 kg	6,5 to 10,5	500 to 2500	1000 to 5000	1500 to 7500	-
Type 1	3101	800 to 3150 kg	10,5 to 16	1600 to 6300	3200 to 12600	4800 to 18900	-
Type 2	3201	800 to 3150 kg	8 to 11	-	-	-	-
Type 2	3251	800 to 3150 kg	11 to 13,5	-	-	-	-
Type 1	4101	2000 to 6250 kg	17 to 20	4000 to 12500	8000 to 25000	12000 to 37500	-
Type 2	4201	2000 to 6250 kg	13 to 17	-	-	-	4000 to 12500

All our limiters include a fine-tuning mechanism for adjusting on-site the maximum authorised load, to within ±10% of the factory-preset load limit.

# LIMITER type 4

This limiter, inserted between the hoist and the suspension ring, can be used with all low-tonnage devices.

Nominal limiter load	Type	A	E	S	C	K	T	U	H	G	D	L
60 to 315 kg	1401	120	60	14	56	222	36,5	62	15	35	20	43
250 to 1215 kg	2401	175	60	22	65	268	44,4	76,5	25	45	25	65
800 to 3150 kg	3401	237	60	25	76	337	58,7	103	30	45	35	80





# > LIMITER type 5

Mechanical overload limiter.

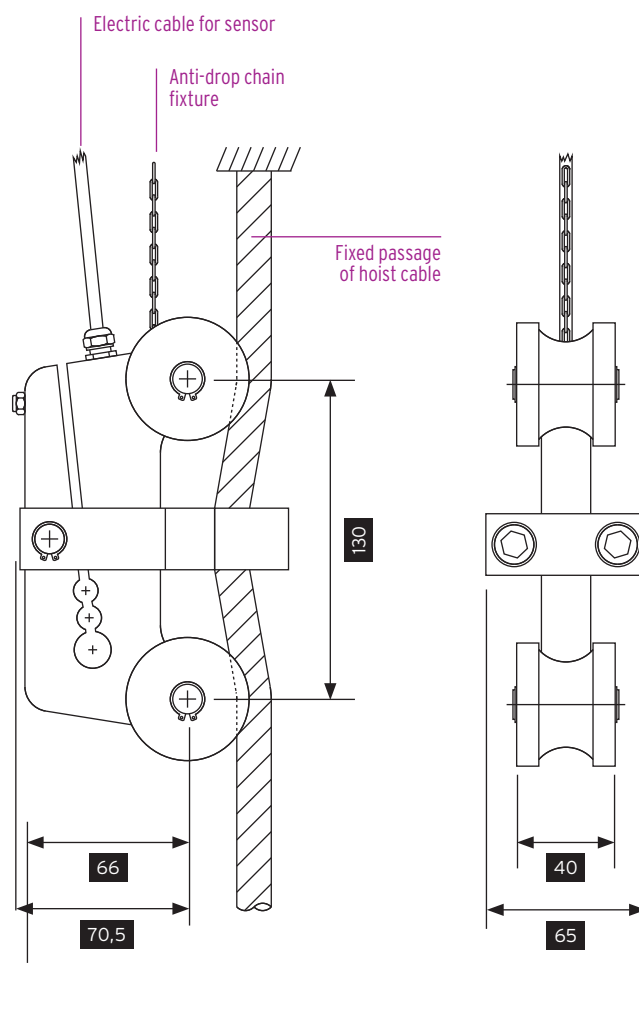
## > How it works

This limiter model has been designed to prevent overloading when using lifting equipment such as hoists, travelling cranes...

The limiter is delivered at the desired tare weight in order to facilitate assembly by the technical department.

## > Technical features

- > Micro-switch: 4A 250V AC.
- > Working temperature: -30°C +60°C.
- > Capacity: 250 kg to 8 500 kg.
- > Modulus of rupture: 500%.
- > Protection rating: IP67 (for outdoor use).
- > Cable diameter: 5 mm to 31 mm.
- > Measurement precision  $\pm 1\%$ .



## VERLINDE is:

- The leading French manufacturer and exporter of lifting and handling equipment.
- A comprehensive range of 30 groups of lifting equipment from 60 to 250,000 kg.
- ISO 9001 Quality control certified and ISO 14001 Environmental Management Systems.

## In France:

A sales network and after sales service points, EUROPONT travelling crane construction plants and a distributor network.

## Abroad:

A customer service in more than 92 countries.

## References

**Metallurgy, Mechanics, Nuclear**  
ArcelorMittal, Unimetal, Stein, NFM,  
Framatome, Alstom

**Chemicals, Petrochemicals industry**  
Sanofi Aventis, Total,  
Du Pont De Nemours

**Aeronautical industry**  
Aérospatiale, Airbus,  
Snecma, Eurocopter,  
Air France, Aéroport de Paris,  
Dassault Aviation



**Agri-food industry**  
Nestlé, Danone, Bel, Palamatic,  
Tetrapak, Lactalis

**Automobile industry**  
Renault, Peugeot, Citroën, Scania,  
Ford, RVI, Volkswagen, Michelin,  
Massey Fergusson, Manitou,  
Toyota Industrial Equipment

**Other sectors**  
EDF, SNCF, RATP, Spie, Degremont,  
Eiffage, Polysius, Baudin Chateauneuf



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