

## Signal Transmission Systems

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**Spiral Cable System WLS**

**RadioBandSystem RBS**



## Product Information WLS

### WLS – the epitome of durability

#### Areas of application

The WLS signal transmission system is used as a protective conduit for cables in doors and gates. When it comes to making danger areas safe, the system is especially suitable for safe transmission of signals between tactile sensors e.g. Safety Edges and the control module.

Examples:

- Vertical and horizontal gates
- Machine hoods and windows
- Conservatories
- Sun blinds
- Moulding and textile machines



#### Function

The system consists of an aluminium profile tube and a specially designed, abrasion-resistant and extremely dimensionally stable spiral cable with carriage. When the carriage is put into motion the cable is stretched inside the profile tube and returns to its original position when the carriage goes back. The system components were designed to co-ordinate with each other and can be used in gates both indoors and outdoors. The WLS is suitable for gates in high-frequency operation.

#### Technical data

Cable:	special, wear-free, double insulated spiral cable
Number of wires/cross-section:	4x 0.14 mm <sup>2</sup>
Max. operating voltage:	max. 48 V AC/DC
Max. load at +25 °C:	max. 1.5 A eff.
Temperature range:	-20 °C to +80 °C
Conduit rail:	aluminium, anodized, warp resistant
Moving speed:	max. 40 m/min
Runway lengths:	1.5 m to 23.5 m
System lengths:	2.0 m to 26.0 m in fixed lengths: 2, 3, 4 and 6 m

#### At a glance

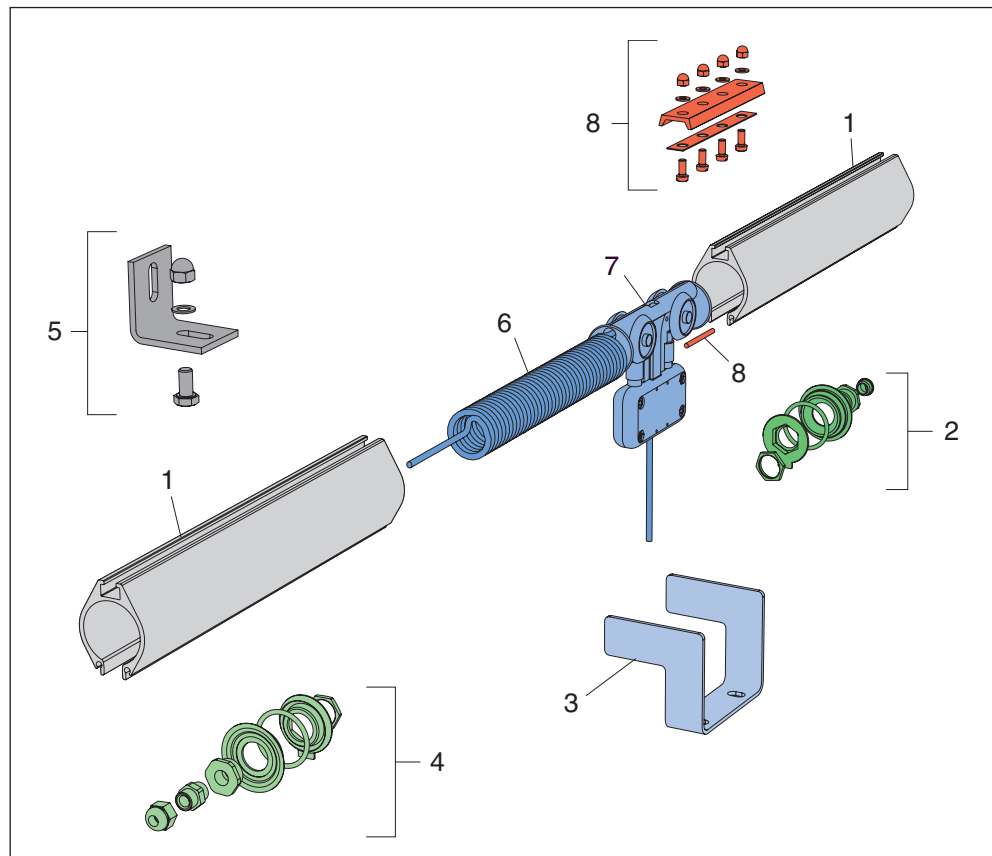
- Robust, simple, proven construction
- Quick and easy installation due to low number of components in modular form
- Maintenance-free
- Short envelope delay to meet the dynamic force and time parameters in accordance with EN 12453 and EN 12445



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### System assembly



Pos.	Part No.	Designation	Comment
1	10038-06 ... -09	Profile tube WLS	aluminium anodised; 2, 3, 4 and 6 m
2	1003792	WLS-sealing cap	closed
3	1003771	Carrying fork for WLS	
4	1003791	WLS-sealing cap	PG 7
6	–	Spiral cable	4x 0.14 mm <sup>2</sup>
7	–	Carriage	
8	1003802	Tube connector for WLS	galvanised
7 + 6	75015-13 ... -24	Spiral cable with carriage	4x 0.14 mm <sup>2</sup>

#### Accessories

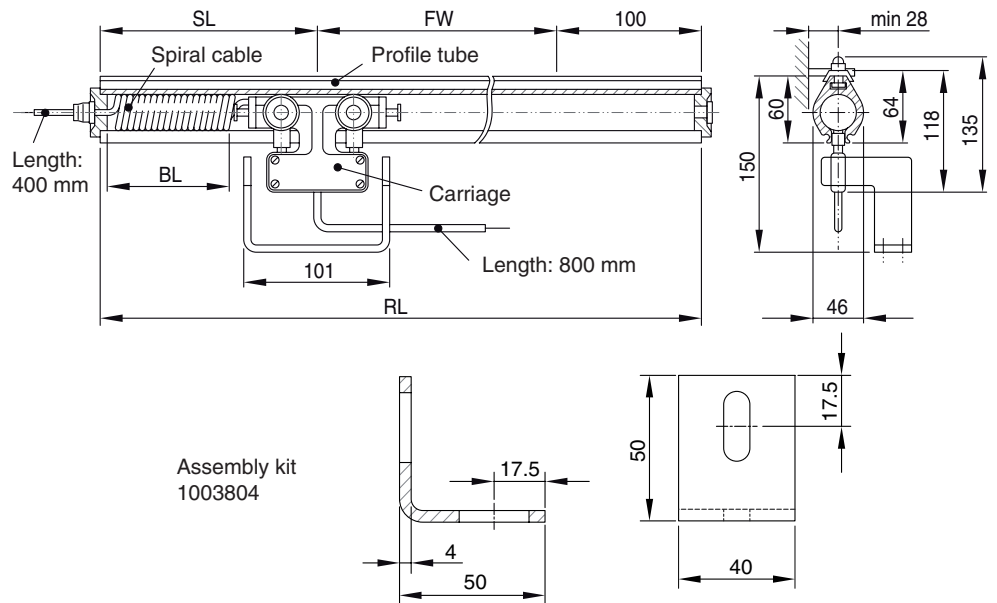
5	1003804	Fastening parts for WLS	incl. nuts and screws
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### Dimensions and part numbers



WLS complete Part No.	WLS-kit, no profile tube Part No.	Spiral cable with carriage Part No.	Max. runway FW [m]	Profile tube length RL [m]	Storage length SL [m]	Block length BL [m]
7501482	7501501	7501513	1.5	2	0.3	0.12
7501483	7501502	7501514	1.6 ... 2.5	3	0.4	0.29
7501484	7501502	7501514	2.6 ... 3.5	4	0.4	0.29
7501485	7501503	7501515	3.6 ... 4.3	5 = 2+3	0.6	0.46
7501486	7501503	7501515	4.4 ... 5.3	6	0.6	0.46
7501487	7501504	7501516	5.4 ... 6.1	7 = 3+4	0.8	0.63
7501488	7501504	7501516	6.2 ... 7.1	8 = 4+4	0.8	0.63
7501489	7501505	7501517	7.2 ... 8.0	9 = 3+6	0.9	0.80
7501490	7501505	7501517	8.1 ... 9.0	10 = 4+6	0.9	0.80
7501491	7501506	7501518	9.1 ... 9.8	11 = 3+4+4	1.05	0.96
7501492	7501506	7501518	9.9 ... 10.8	12 = 6+6	1.05	0.96
7501493	7501506	7501518	10.9 ... 11.8	13 = 3+4+6	1.05	0.96
7501494	7501507	7501519	11.9 ... 12.6	14 = 2+6+6	1.25	1.13
7501495	7501507	7501519	12.7 ... 13.6	15 = 3+6+6	1.25	1.13
7501496	7501508	7501520	13.7 ... 15.3	17 = 2+3+6+6	1.60	1.48
7501497	7501509	7501521	15.4 ... 17.1	19 = 3+4+6+6	1.80	1.65
7501498	7501510	7501522	17.2 ... 19.0	21 = 3+6+6+6	1.90	1.78
7501499	7501511	7501523	19.1 ... 20.9	23 = 2+3+6+6+6	2.00	1.85
7501500	7501512	7501524	21.0 ... 23.5	26 = 2+6+6+6+6	2.40	2.28

Quantity buyers and dealers: please send us your request for quotation.



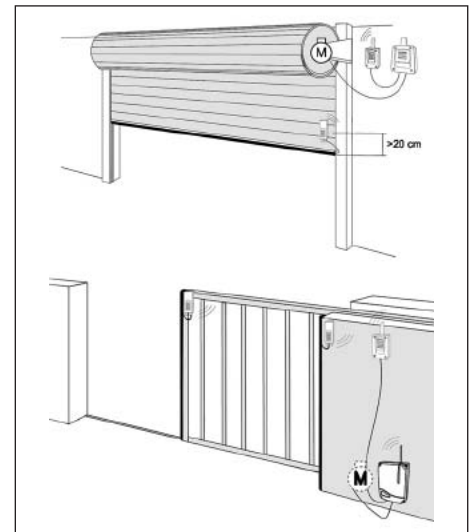
## Product information RadioBandSystem RBS – System JCM –

### Radio communication for Safety Edges – the wireless transmission technology

#### Area of application

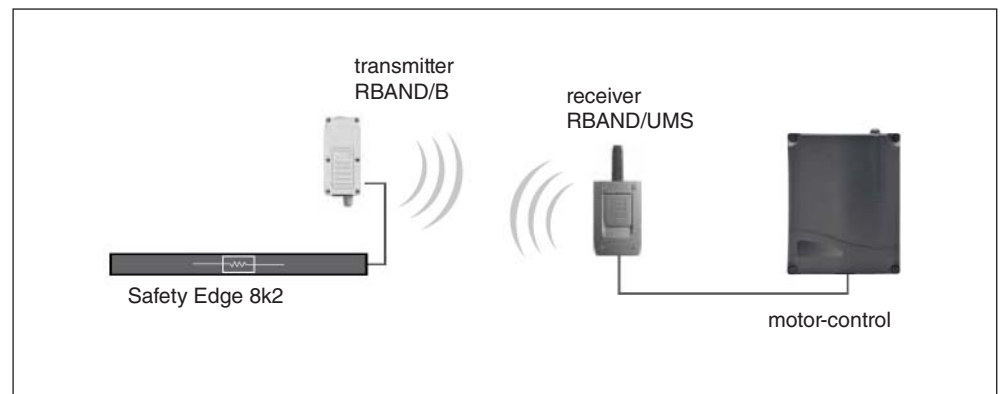
The RBS RadioBandSystem was developed specially for making closing edges on doors and gates of commercial and residential buildings safe.

Optimised for transmission of signals from Safety Edges with a monitoring resistance of 8k $\Omega$ , the RBS is directly connected to the motor-control, which makes it a cost-effective alternative to spiral cables that are subject to wear or to inductive systems. Whether used with roller gates, swing gates, sliding gates, hinged gates, sectional doors, folding gates, high-speed doors or revolving doors, the RBS RadioBandSystem functions reliably, and is also very easy to install and maintain.



#### Function

The RBS RadioBandSystem transmits signals without using wires: from the RBAND/B transmitter, connected to the Safety Edge, via radio to the RBAND/UMS receiver, which simulates the Safety Edge for the motor-control.

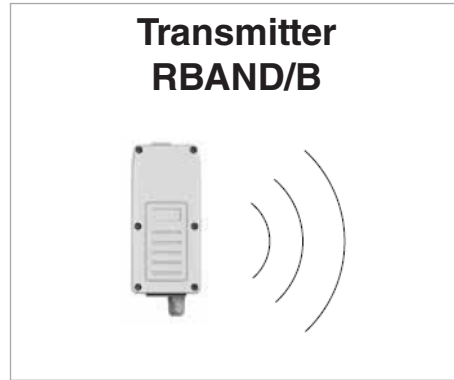


The radio signal strength is automatically adjusted to the transmission distance. That ensures both a constant good signal quality and a long battery lifetime.

#### At a glance

- very easy assembly
- for Safety Edges with 8k $\Omega$
- 10 m range
- complies with EN 12978 Section 4.1 b)
- complies with ISO 13849-1:2006 Category 2 PL c ( with autotest)
- 1 receiver for up to 6 transmitters

Technical data



	<b>RBAND/B</b>	<b>RBAND/UMS</b>
Radio system	Multifrequency system 2G	Multifrequency system 2G
Frequency 868 MHz	4-channel	4-channel
Frequency 433 MHz	safety channel	safety channel
Inputs	1× Safety Edge 8k2	2× autotest (reversible polarity)
Outputs	–	2× simulation Safety Edge 8k2 or 1× simulation Safety Edge 8k2 1× battery level indicator
Functions set using	Programming button, jumper	Programming button, check button, DIP switch, jumper
Range	10 m	10 m
Power supply	DC 3 V (2× 1.5V alkaline AA)	AC/DC 12 V, AC/DC 24 V
Voltage range	–	DC 9 to 35 V, AC 8 to 28 V
Nominal current	10 mA	255 mA
Battery lifetime	approx. 2 years	–
IEC 60529 (protection class)	IP65	IP54 (IP65 with PG screw connection)
Operating temperature	-20 to +55 °C	-20 to +85 °C
Dimensions (W × H × D)	60 × 174 × 23 mm	82 × 190 × 40 mm
Weight	155 g (incl. batteries)	165 g

For your application

- The latest generation with two-way communication (bi-directional) with 868 MHz
- Additional safety channel with 433 MHz
- Battery voltage monitoring for all transmitters used
- Monitoring and automatic adjustment of radio signal strength
- Reaction time of the system: < 35 ms
- Two invertible autotest inputs to test the safety function of both (gate or door) directions of movement via the motor-control
- Certified according to ISO 13849-1:2006 and EN 12978:2003 Section 4.1 b)
- With autotest signal of motor-control, complies with category 2