



AirMission

Wireless signal transmission system
for pressure wave edges on roller,
sectional and overhead doors

Straightforward, safe, low-maintenance

- **Fast and easy installation and short start-up time**
- **Varied applications**
- **Safety with performance level PLc, cat. 2 in accordance with EN ISO 13849-1**
- **Long service life and low operating costs thanks to wear-free signal transmission**

AirMission 1 / AirMission 1.T / AirMission 2.W2

Wireless signal transmission system for pneumatic safety edges on roller, sectional and overhead doors

Safety in an instant

The AirMission system wirelessly transmits signals from the closing edge of the gate to the controller. Information regarding the status of a pressure-sensitive, pneumatic safety edge is transferred contact-free and therefore wear-free. The AirMission system is suitable for applications with performance level PLC, cat. 2 in accordance with EN ISO 13849-1. Program, fit, switch on and off you go!

Two-channel

Depending on the application concerned and your exact needs, a pressure wave switch and an additional detector with integrated wicket door switch can be monitored and evaluated. Up to seven transmitters in parallel can be programmed to each channel.



Benefits for you

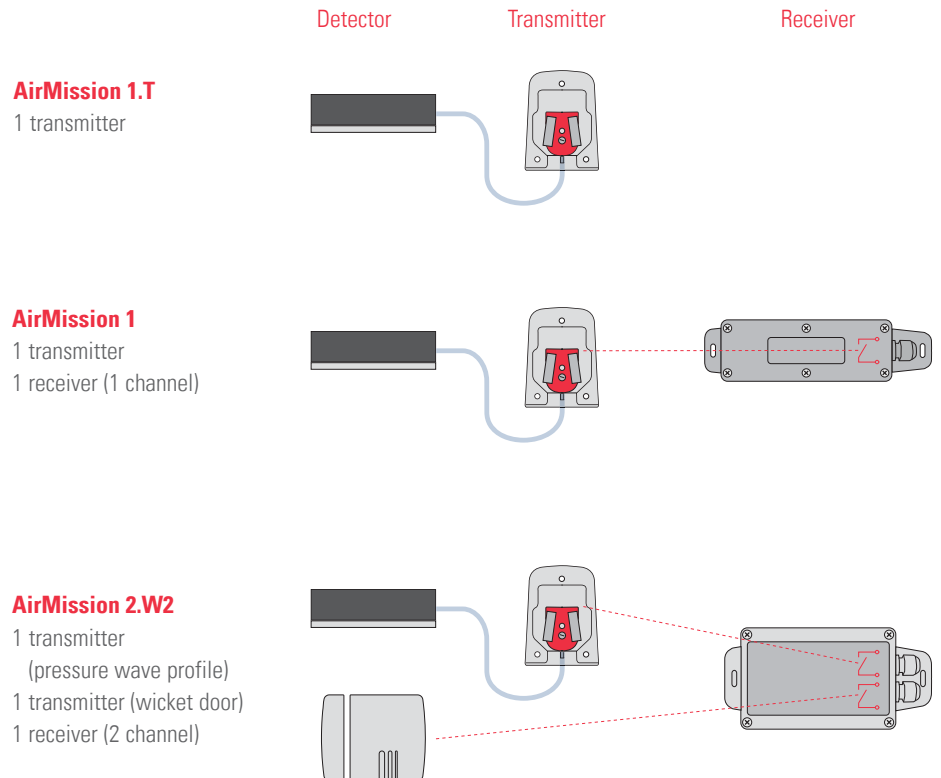
- Compatible with a wide range of pneumatic safety edges
- Two outputs to distinguish between closing direction and general stop, for example (AirMission 2.W2)
- Up to 7 transmitters can be evaluated in parallel per channel
- No test input wiring required thanks to final position testing
- Long battery life (> 1.2 years)

Special housing

IP54 protection class
Thanks to its rounded form, no objects can be placed on the housing. There is therefore no risk of tools falling down, for example.



System overview





Applications

Situation

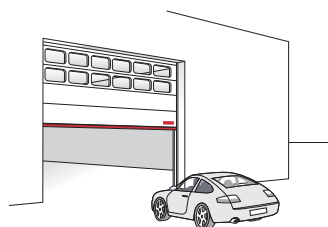
Roller door, sectional door, high-speed door

Solution

- AirMission 1

Benefit

- Wear-free signal transmission of highly sensitive pressure wave edge



Situation

Sectional door with wicket door

Solution

- AirMission 2.W2

Benefit

- Separate evaluation of pneumatic safety edge and wicket door switch in the same receiver



Situation

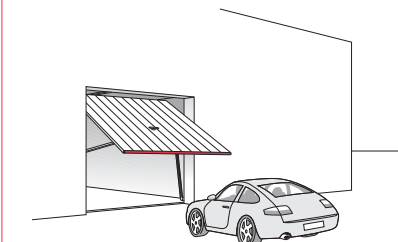
Overhead door

Solution






- AirMission 1

Benefit




- Wear-free signal transmission of highly sensitive pressure wave edge





Ordering information

Article no.	Description	
AirMission sets		
350233	AirMission 1 1 transmitter and 1 one-channel receiver	
365540	AirMission 2.W2 2 transmitters and 1 two-channel receiver	
Components		
344428	AirMission 1.T Transmitter with integrated pressure wave switch	
250951	RFGate 2.1.R One-channel receiver	
306923	RFGate 2.2.R.A Two-channel receiver	



Supplementary products

Article no.	Description	
Profiles		
210154	DWS-D Profile, PVC, black 14 x 20 mm	
210152	DWS-C Profile, PVC, black 25 x 29 mm	
210147	DWS-B Profile, PVC, black 25 x 39 mm	

For further profiles, see DW brochure

Connection elements		
207495	Hose PVC 2/4 PVC, 100 m	
207502	Hose Neoprene 2/4 Neoprene, 100 m	

Transmitter for wicket doors		
361143	RFGate 2.1.W2.S Transmitter with integrated wicket door switch	

Sets for wicket doors		
365398	RFGate 2.1.W2 1 transmitter for wicket door 1 receiver (one-channel)	
365399	RFGate 2.2.W2.F.A 1 transmitter (slim), 1 transmitter for wicket door, 1 receiver (two-channel)	

Note

Technical details and recommendations concerning our products are based on experience and are an aid for the orientation of the user. Details stated in our brochures and data sheets do not guarantee special properties of the products. This does not apply to special product properties confirmed by us in writing or individually. Subject to technical alterations.

Technical data

General data	
Frequency ranges	868.95 MHz / 869.85 MHz
Range	100 m under optimum conditions
Communication	Bidirectional
Radiated power	< 5 dbm / 3 mW

Mechanical data	
Transmitter	AirMission 1.T
Material (housing)	ABS, grey
Dimensions	73 × 95 × 56 mm (W × H × D)
Air hose connection	Ø 3 mm for 2/4 mm hose
Response pressure	2 ± 0.5 mbar
Max. pressure	150 mbar
Pressure equalisation	110 ml/min at 2 mbar
Mech. service life	10 million switching operations
Transmitter	RFGate 2.1.W2.S
Material (housing)	ABS, light grey
Dimensions	65.7 × 57.6 × 15.5 mm (W × H × D)
Receiver, switching device	RFGate 2.1.R
Material (housing)	Polycarbonate, smoke colours
Dimensions	190 × 51 × 36 mm (W × H × D)
Connection type	7 screw terminals
Receiver, switching device	RFGate 2.2.R.A
Material (housing)	Polyamide, light grey
Dimensions	178 × 80 × 45 mm (W × H × D)
Connection type	12 screw terminals

Electrical data		
Transmitter	AirMission 1.T	RFGate 2.1.W2.S
Supply voltage	2	2
	Lithium batteries, 3V (CR2032)	
Battery life	Typ. 1.2 years	Typ. 2 years
Current consumption	Transmitting: 17 mA In sleep mode: 16 µA	
	Typ. 25 ms	Typ. 50 ms
Codes available	65,536	
Receiver, switching device	RFGate 2.1.R	RFGate 2.2.R.A
Supply voltage	12–24 V AC/DC -10% / +20%	
Power consumption	0.5 W at 12 V / 1.2 W at 24 V	
Transmitter memory	10	7 per channel
Outputs	1	2
Displays: LED red (status output)	1	2
Relay	24 V DC, 1 A, NO, with 8k2 parallel resistor as option	
Low battery indication	Acoustic and visual (LED)	

Ambient conditions	
Receiver protection class	IP55
AirMission 1.T protec. class	IP54
RFGate 2.1.W2.S protec. class	IP65
Operating temperature	–20°C to +55°C
Storage temperature	–40°C to +80°C
Air humidity	< 95% non-condensing
Standards	EN 300 220, EN 301 489 EN ISO 13849-1 (PLc, cat.2, MTTFD 28.8)

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