

Product Information Transponder system TRS-S

Transponder system TRS-S – wear-free signal transmission for door systems

Area of application

For the transmission of safety-related signals on door systems, Mayser has taken wireless transmission, already established in the bus + train sector, a step further. The wireless transmission system is based on transponder technology. It has been adapted to the special requirements of door systems: the results are very easy assembly and installation, as well as top reliability and zero wear. And all this is proven and tested at a high level: EN 954 category 3 and SIL2 as per EN 61508. Better safe than sorry. Also without wires: Wireless Safety.



Function

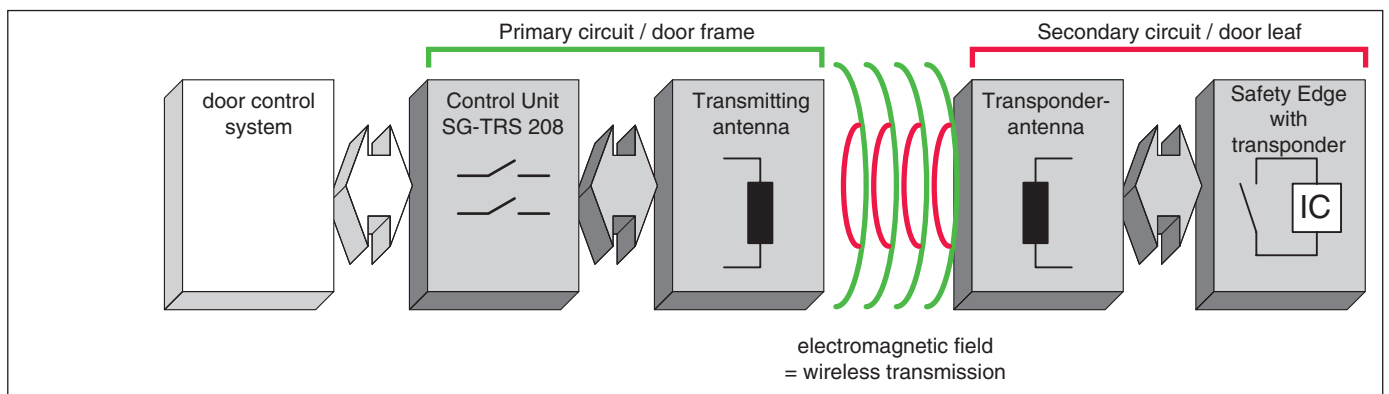
The transponder system is a highly tolerant complete system which roughly consists of two circuits:

The **primary circuit** is secured to the door frame and directly connected to the door control. It consists of

- transmitting antenna, which at the same time is the power source for the secondary circuit, and
- Control Unit with connection to door control system

The **secondary circuit** is fitted to the moving door leaf and consists of

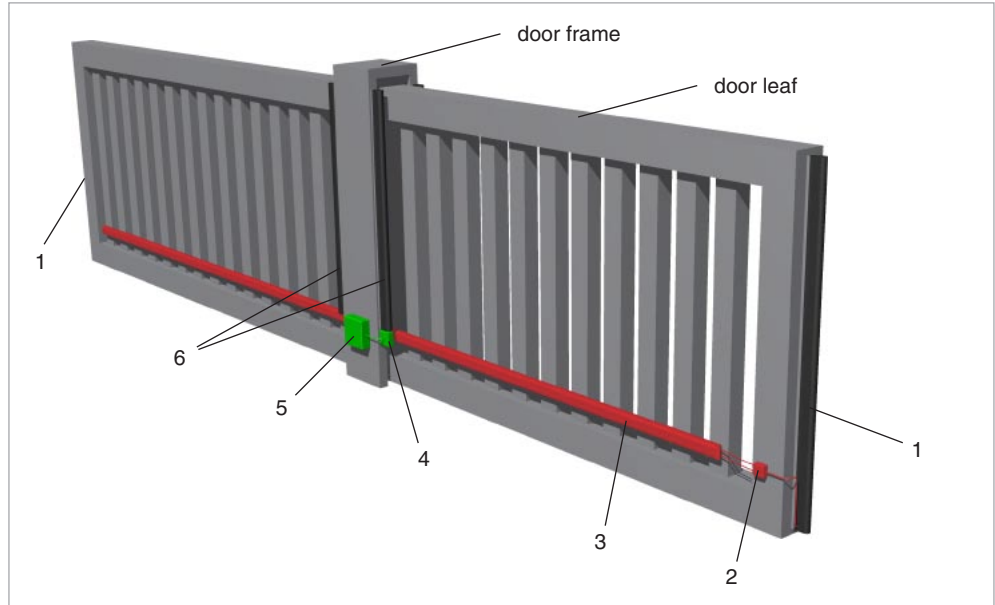
- Safety Edge,
- tuning box for fast length adaptation and
- transponder antenna.



At a glance

- simple and fast assembly
- door system tolerances unimportant, thus easy to install
- suitable for retrofitting
- secondary circuit without separate power source
- non-susceptible to interference from other radio signals
- wear-free

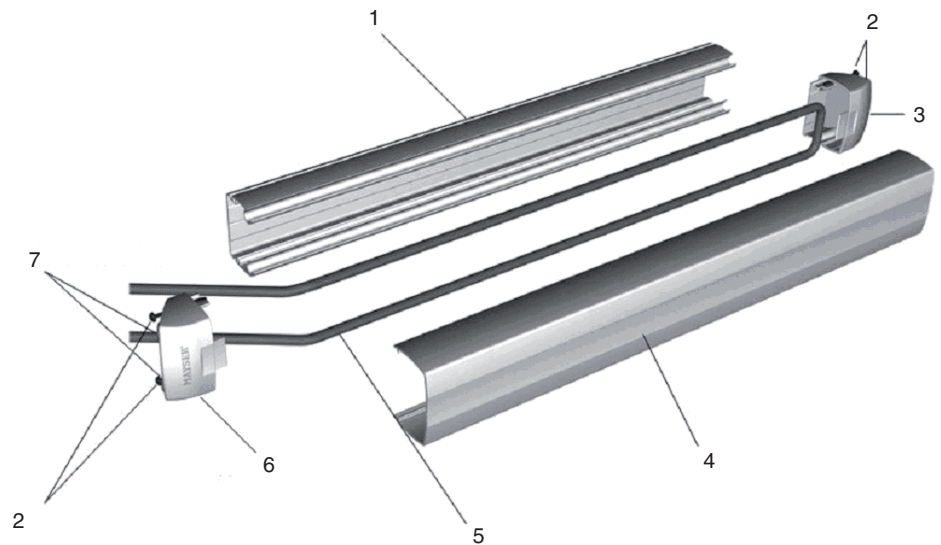
System setup



Pos.	Part No.	Designation	Comment
1	– –	Safety Edge, door leaf SL/TRS SL/BK	incl. rubber profile and aluminium profile with integrated transponder chip BK type Safety Edge
2	1004300	Tuning box TRS-S 55 AB	for configuration of the transponder antenna, incl. integrated transponder chip for SL/BK
3	7502026 to 7502041	Transponder antenna set TRS-S 55 TS	complete with spool carrier, antenna cable and end cap set (see page 3)
4	7502366	Transmitting antenna TRS-03-M	4.5 m connection cable for attaching to metal
5	1004179 1004180	Control Unit SG-TRS 208/8k2 SG-TRS 208/NC	SIL2, DC 24 V, two channel, 2 relay contacts, secondary closing edge connection for Safety Edges with R = 8k2 NC-Safety Edges
6	– – – –	Safety Edge, door frame SL/8k2 SL/BK SL/NC SL/NC/W8k2	incl. rubber profile and aluminium profile with monitoring resistor 8k2 BK type with NC contact with NC contact and integrated monitoring resistor 8k2

We will be pleased to submit an offer for bulk buyers.

Transponder
antenna set TRS-S

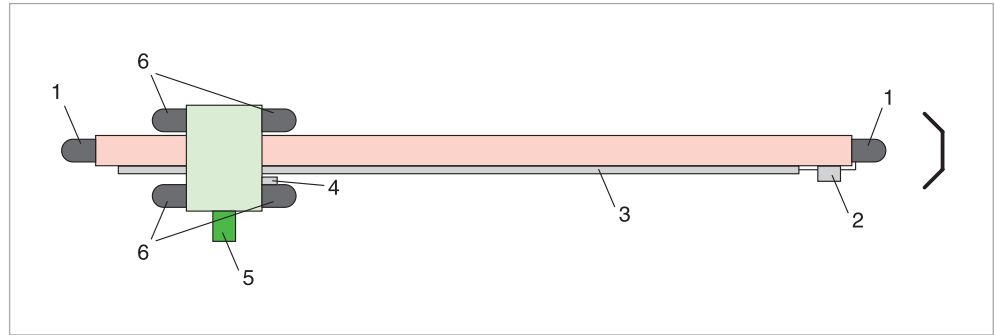


- | | |
|--------------------------------------|------------------------------|
| 1 Spool carrier lower section TRS 55 | 5 Antenna cable for TRS-S 55 |
| 2 Fixing screws for end cap | 6 End cap for TRS-S 55 |
| 3 End cap for TRS 55 | 7 Cable grommets TRS-S 55 |
| 4 Spool carrier upper section TRS 55 | |

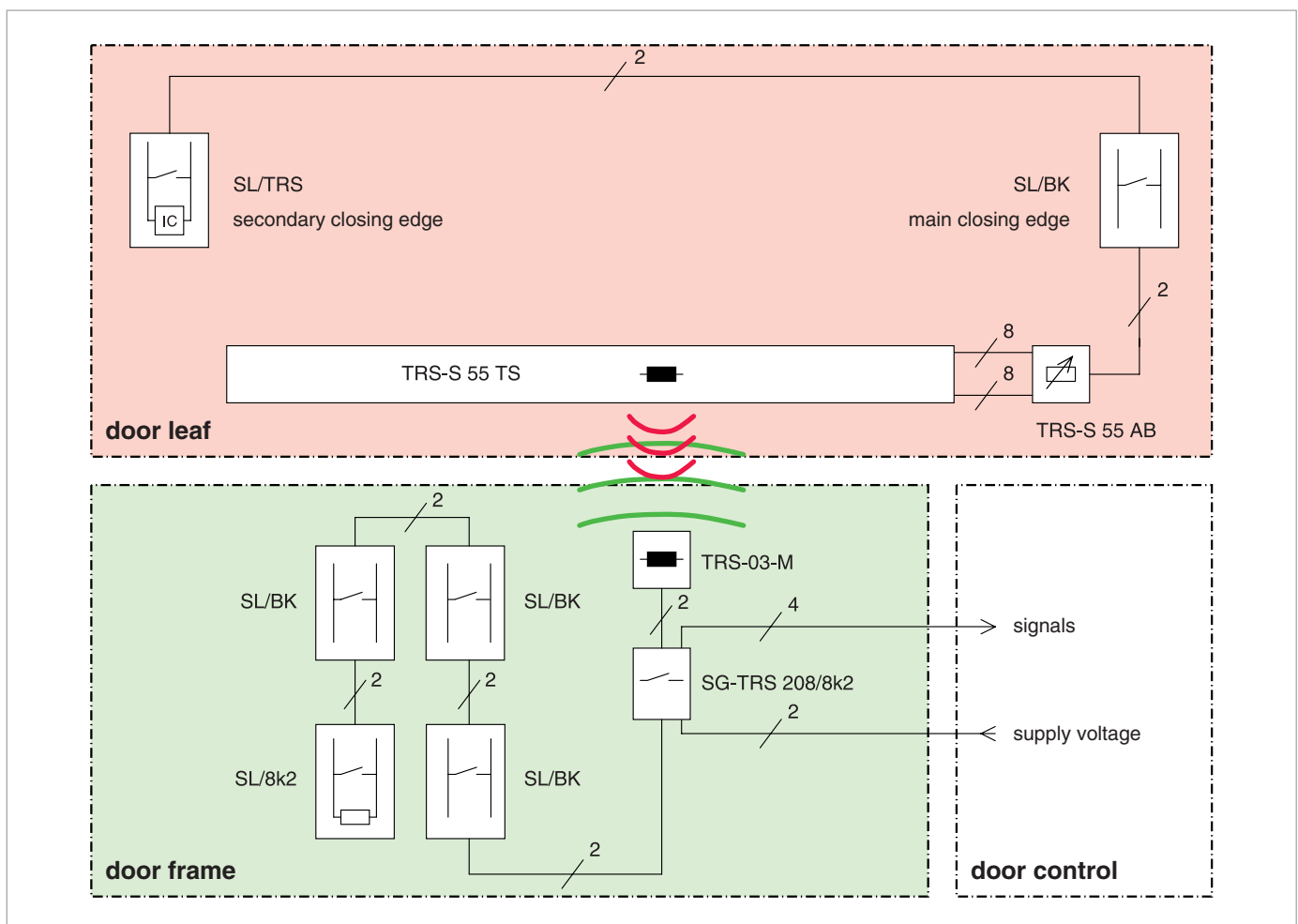
Transponder antenna set TRS-S 55 TS complete Part No.	Runway max. FW [m]	System length L_S [m]	Antenna cable for TRS-S 55 L_A [m]
7502026	3.0	3	7.0
7502027	4.0	4 = 2+2	9.0
7502028	5.0	5 = 3+2	11.0
7502029	6.0	6 = 3+3	13.0
7502030	7.0	7 = 3+2+2	15.0
7502031	8.0	8 = 3+3+2	17.0
7502032	9.0	9 = 3+3+3	19.0
7502033	10.0	10 = 3+3+2+2	21.0
7502034	11.0	11 = 3+3+3+2	23.0
7502035	12.0	12 = 3+3+3+3	25.0
7502036	13.0	13 = 3+3+3+2+2	27.0
7502037	14.0	14 = 3+3+3+3+2	29.0
7502038	15.0	15 = 3+3+3+3+3	31.0
7502039	16.0	16 = 3+3+3+3+2+2	33.0
7502040	17.0	17 = 3+3+3+3+3+2	35.0
7502041	18.0	18 = 3+3+3+3+3+3	37.0

Note: The longest runway FW_{max} possible depends on each individual configuration. Please observe the order examples on the following pages.

Order example 1



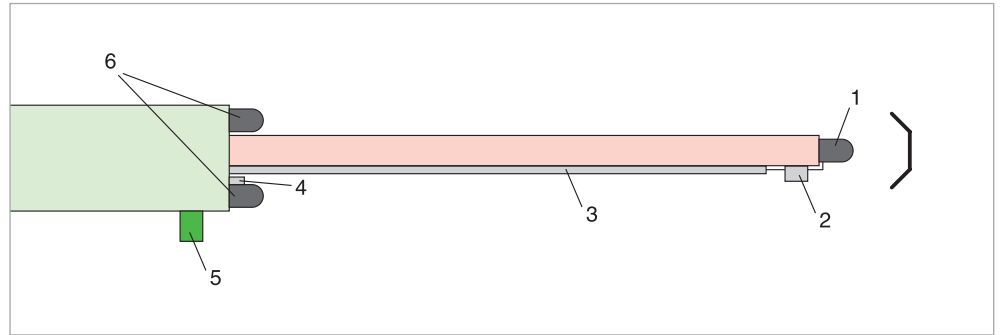
Sliding door with runway FW = 7.2 m.
Door leaf has 2 NO-Safety Edges (1), one per closing edge.
Door frame has 4 NO-Safety Edges (6), one per secondary closing edge.



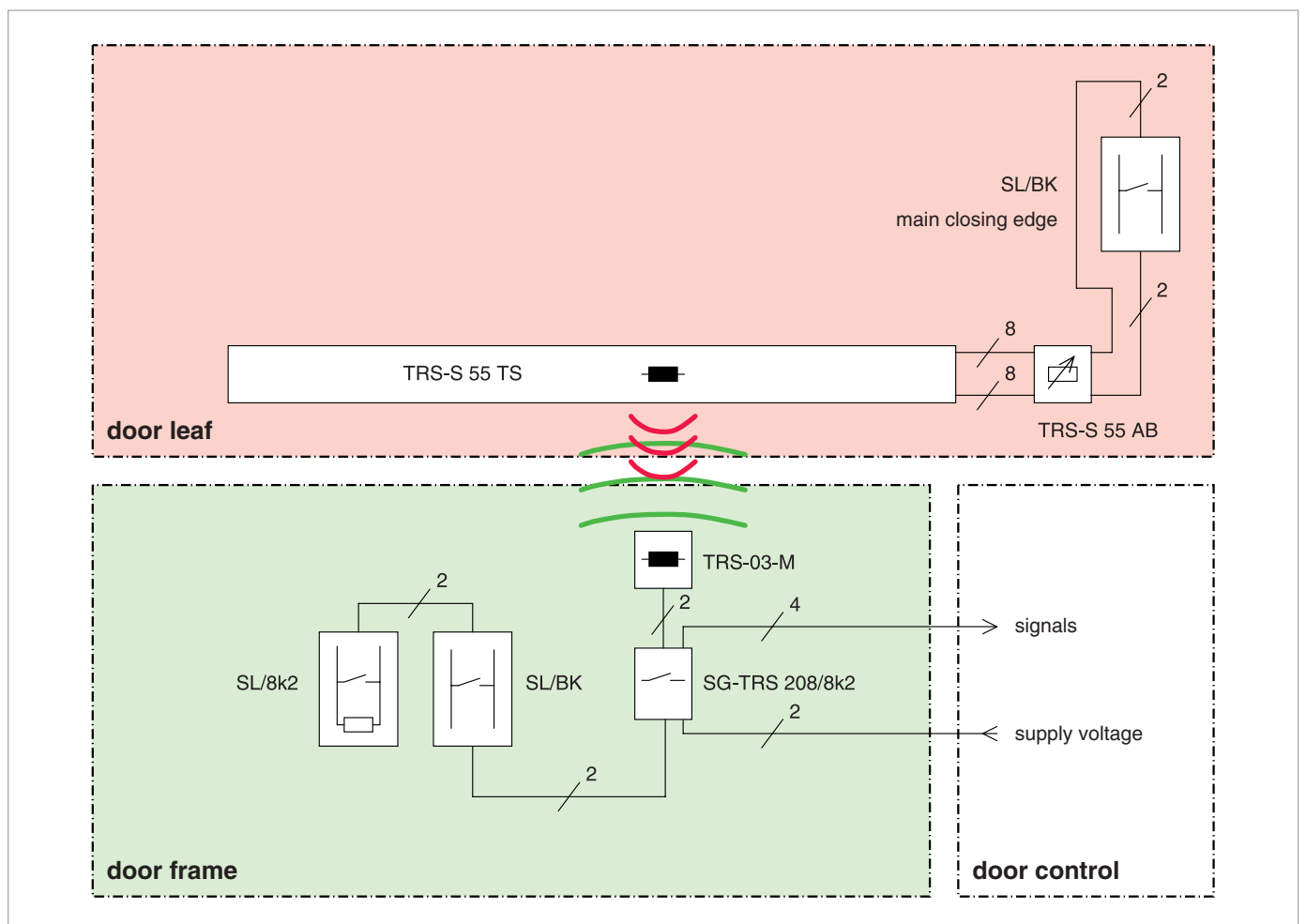
for door leaf (secondary circuit)	Part No.
1x Transponder Safety Edge SL/TRS (1)	–
1x NO-Safety Edge SL/BK (1)	–
1x Tuning box TRS-S 55 AB (2)	1004300
1x Transponder antenna set TRS-S 55 TS, 8 m (3)	7502031

for door frame (primary circuit)	Part No.
1x Transmitting antenna TRS-03-M (4)	7502366
1x Control Unit SG-TRIS 208/8k2 (5)	1004179
3x NO-Safety Edge SL/BK (6)	–
1x NO-Safety Edge SL/8k2 (6)	–

Order example 2



Sliding door with runway FW = 3.8 m.
Door leaf has 1 NO-Safety Edge (1) on the main closing edge.
Door frame has 2 NO-Safety Edges (6), one per secondary closing edge.

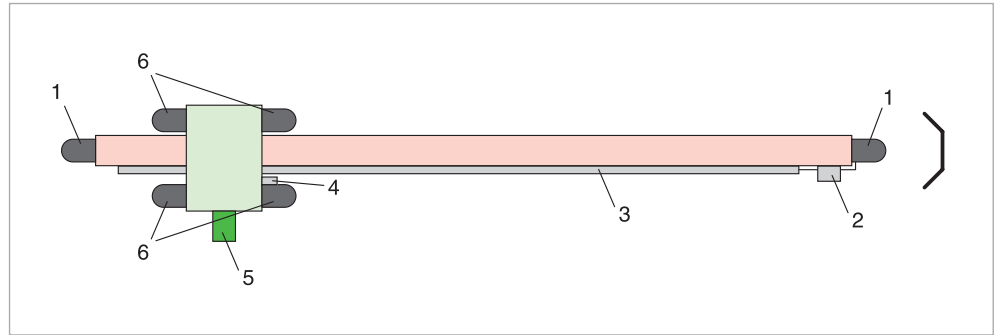


for door leaf (secondary circuit)	Part No.
1x NO-Safety Edge SL/BK (1)	–
1x Tuning box TRS-S 55 AB (2)	1004300
1x Transponder antenna set TRS-S 55 TS, 4 m (3)	7502027

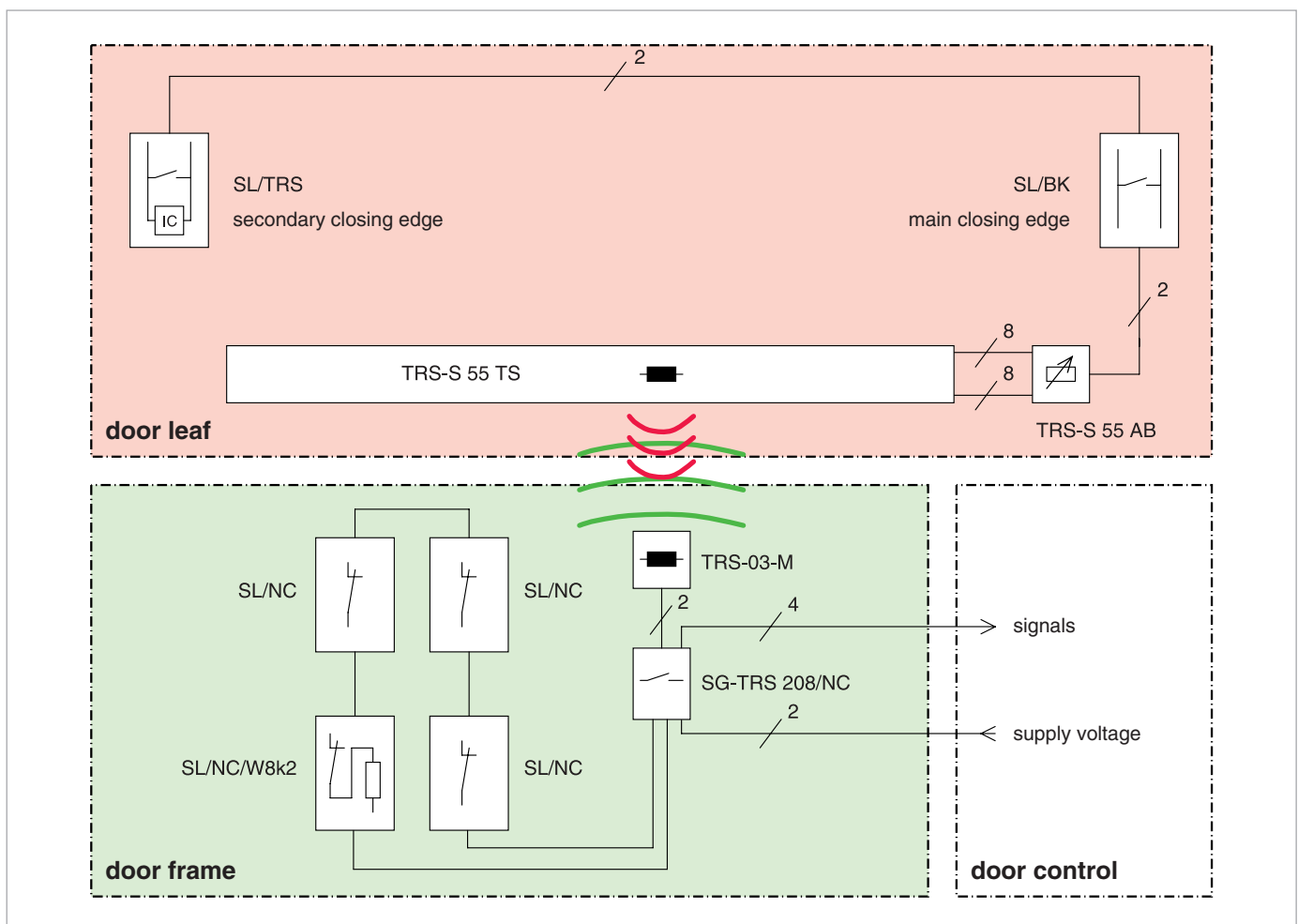
Note: In this case, the longest possible runway FW_{max} is 18.0 m.

for door frame (primary circuit)	Part No.
1x Transmitting antenna TRS-03-M (4)	7502366
1x Control Unit SG-TRS 208/8k2 (5)	1004179
1x NO-Safety Edge SL/BK (6)	–
1x NO-Safety Edge SL/8k2 (6)	–

Order example 3



Sliding door with runway FW = 5.5 m.
Door leaf has 2 NO-Safety Edges (1), one per closing edge.
Door frame has 4 NC-Safety Edges (6), one per secondary closing edge.

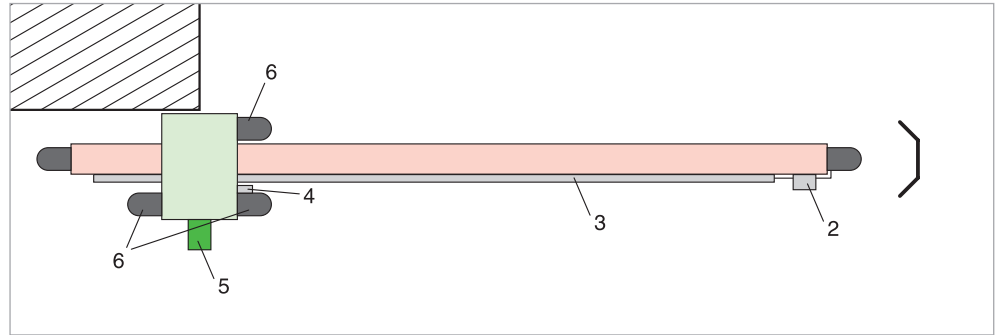


for door leaf (secondary circuit)	Part No.
1x Transponder Safety Edge SL/TRS (1)	–
1x NO-Safety Edge SL/BK (1)	–
1x Tuning box TRS-S 55 AB (2)	1004300
1x Transponder antenna set TRS-S 55 TS, 6 m (3)	7502029

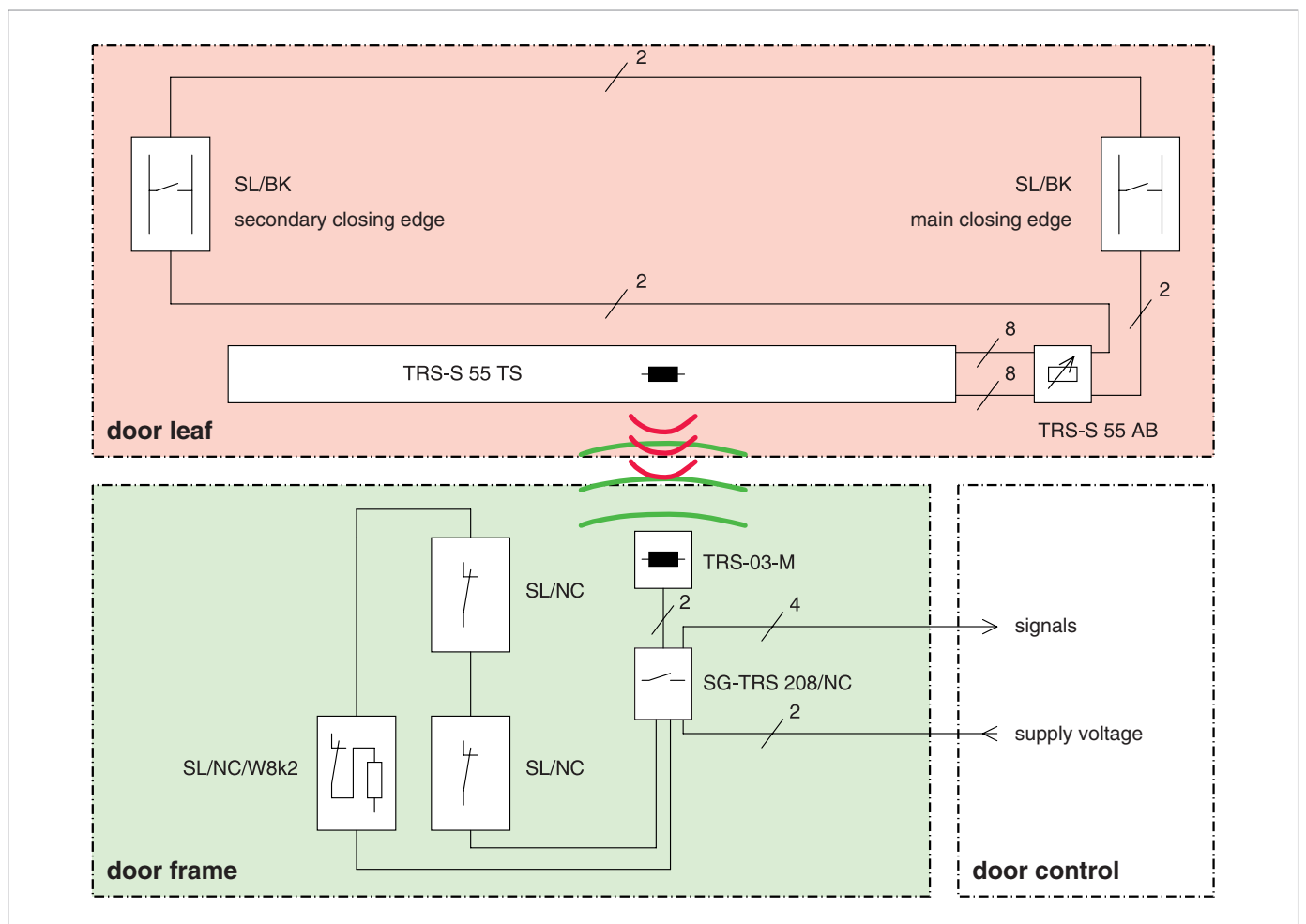
Note: In this case, the longest possible runway FW_{max} is 16.0 m.

for door frame (primary circuit)	Part No.
1x Transmitting antenna TRS-03-M (4)	7502366
1x Control Unit SG-TRS 208/NC (5)	1004180
3x NC-Safety Edge SL/NC (6)	–
1x NC-Safety Edge SL/NC/W8k2 (6)	–

Order example 4



Retrofitted sliding door with runway FW = 5.3 m.
Door leaf already has 2 NO-Safety Edges, one per closing edge.
Door frame has 3 NC-Safety Edges (6), one per secondary closing edge.

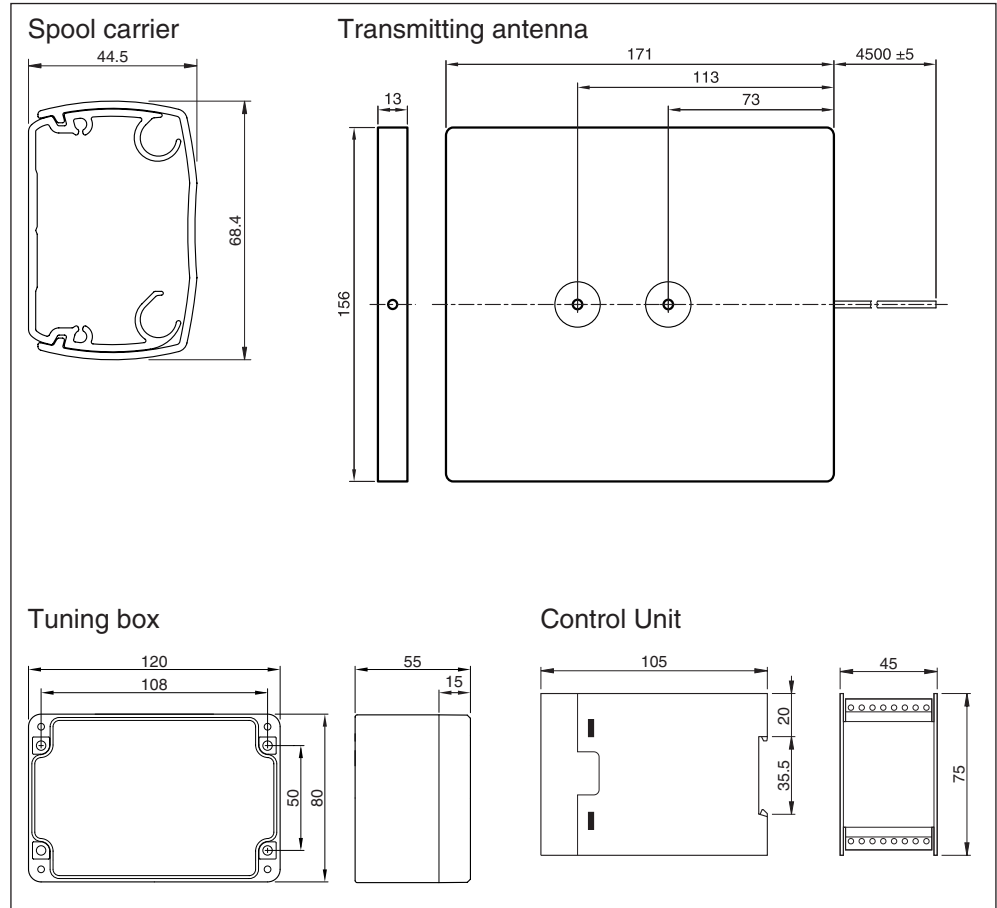


for door leaf (secondary circuit)		Part No.
1x	Tuning box TRS-S 55 AB (2)	1004300
1x	Transponder antenna set TRS-S 55 TS, 6 m (3)	7502029

Note: In this case, the longest possible runway FW_{max} is 14.0 m.

for door frame (primary circuit)		Part No.
1x	Transmitting antenna TRS-03-M (4)	7502366
1x	Control Unit SG-TRS 208/NC (5)	1004180
2x	NC-Safety Edge SL/NC (6)	—
1x	NC-Safety Edge SL/NC/W8k2 (6)	—

Dimensions



Technical data

Safety:	
Standards	EN 954 category 3, EN 12978, EN 13241-1, SIL2 according to IEC 61508
System	tolerates door variations of up to 40 mm (with 8 m system length)
Protection class:	
Antennae, tuning box	IP66
Control Unit	IP20
Temperature range:	
Antennae, tuning box	-40 °C to +70 °C
Control Unit	-20 °C to +50 °C
Spool carrier:	weather-resistant PVC profile
Available lengths:	3 to 18 m in steps of 1 m