




# WO Sandnes - Stavanger to Norwegian Frame Contract Signaling System

## Applicable Requirements SGRS Functional Requirements Specification (FRS)

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<b>Title:</b> Sørlandsbanen, (Egersund) - Stavanger WO Sandnes - Stavanger Applicable Requirements FRS		Pages:	36		
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## INTRODUCTION

The reader should be familiar with the documents "Instruction to Tenderer" and "Tender overview" in order to relate this document to the entire RFQ.

The reader should also be familiar with the document "Scope of work" – appendix A – in order to relate requirements described in this document to the delivery as described in "Scope of work".

This document states which requirements that are applicable for this project.

### Statuses:

A	Applicable Requirement
NA	Not Applicable Requirement
Ai	Applicable information
NAi	Not Applicable information

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Generic			Frame Agreement			WO SS	
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FRS001	COST-DK1- 1	Ai	Ai	Ai		Ai	
FRS001	COST-DK1- 2	Ai	Ai	Ai		Ai	
FRS001	COST-DK1- 3	Ai	Ai	Ai		Ai	
FRS001	COST-DK1- 4	Ai	Ai	Ai		Ai	
FRS001	COST-DK1- 5	Ai	Ai	Ai		Ai	
FRS001	COST-DK1- 6	Ai	Ai	Ai		Ai	
FRS001	COST-DK1- 7	Ai	Ai	Ai		Ai	
FRS001	COST-DK1- 8	Ai	Ai	Ai		Ai	
FRS001	COST-DK1- 9	Ai	Ai	Ai		Ai	
FRS001	COST-DK1-10	Ai	Ai	Ai		Ai	
FRS001	COST-DK1-11	Ai	Ai	Ai		Ai	
FRS001	COST-DK1-12	Ai	Ai	Ai		Ai	
FRS001	COST1-1	A	A	A		A	
FRS001	COST1-1a	A	A	A		A	
FRS001	COST1-1b	A	A	A		A	
FRS001	COST1-2	A	A	A		A	
FRS001	COST1-3	NA	A	NA		NA	
FRS001	COST2-1	A	A	A		A	
FRS001	COST2-2	A	A	A		A	
FRS001	COST2-3	A	A	A		A	
FRS001	COST2-4	A	A	A		A	
FRS001	COST2-5	A	A	A		A	
FRS001	COST4-1	A	A	A		A	
FRS001	COST4-1a	A	A	A		A	
FRS001	COST4-1b	A	A	A		A	
FRS001	COST4-1c	A	A	A		A	
FRS001	COST4-1d	A	A	A		A	
FRS001	COST4-1e	A	A	A		A	
FRS001	COST4-1f	A	A	A		A	
FRS001	COST5-1	A	A	A		A	
FRS001	COST5-1a	A	A	A		A	

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FRS001	COST5-1b	A	A	A		A	
FRS001	COST6-1	A	A	A		A	
FRS001	COST7-1	NA	A	NA		NA	
FRS001	COST8-1	NA	A	NA		NA	
FRS001	COST9-1	NA	A	NA		NA	
FRS001	COST10-1	NA	A	NA		NA	
FRS001	COST11-1	A	A	A		A	
FRS001	COST11-1a	A	A	A		A	
FRS001	COST11-1b	A	A	A		A	
FRS001	COST11-1c	NA	A	NA		NA	
FRS001	COST11-1d	NA	A	NA		NA	
FRS001	COST11-1e	A	A	A		A	
FRS001	COST12-1	A	A	A		A	
FRS001	COST12-2	A	A	A		A	
FRS001	COST12-3	A	A	A		A	
FRS001	COST12-4	A	A	A		A	
FRS001	COST13-1	A	A	A		A	
FRS001	COST14-1	A	A	A		A	
FRS001	COST15-1	A	A	A		A	
FRS001	COST16-1	NA	A	NA		NA	
FRS001	COST17-1	NA	A	NA	This is a proposal for commands to TSR. Ref to doc "Instructions to Tenderer" concerning Tenderer's input on specific technical and operational issues.	NA	
FRS001	COST17-2	NA	A	NA	This is a proposal for commands to TSR. Ref to doc "Instructions to Tenderer" concerning Tenderer's input on specific technical and operational issues.	NA	

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FRS001	COST17-3	NA	A	NA	This is a proposal for commands to TSR. Ref to doc "Instructions to Tenderer" concerning Tenderer's input on specific technical and operational issues.	NA	
FRS001	COST18-1	A	A	A		NA	
FRS001	COST19-1	A	A	A		A	
FRS001	COST19-1a	A	A	A		A	
FRS001	COST19-1b	A	A	A		A	
FRS001	COST19-1c	A	A	A		A	
FRS001	COST19-1d	A	A	A		A	
FRS001	COST19-1e	A	A	A		A	
FRS001	COST20-1	A	A	A		A	
FRS001	COST20-1a	A	A	A		A	
FRS001	COST20-1b	A	A	A		A	
FRS001	COST20-2	A	A	A		A	
FRS001	COST20-3	NA	A	NA		NA	
FRS001	COST21-1	A	A	A		A	
FRS001	COST22-1	A	A	A		A	
FRS001	COST22-1a	A	A	A		A	
FRS001	COST22-1b	A	A	A		A	
FRS001	COST22-1c	NA	A	NA		NA	
FRS001	COST22-1d	NA	A	NA		NA	
FRS001	COST22-1e	A	A	A		A	
FRS001	COST22-1f	A	A	A		A	
FRS001	COST22-1g	A	A	A		A	
FRS001	COST22-1h	A	A	A		A	
FRS001	COST23-1	A	A	A		A	
FRS001	COST23-1a	A	A	A		A	
FRS001	COST23-1b	A	A	A		A	
FRS001	COST23-1c	NA	A	NA		NA	
FRS001	COST23-1d	A	A	A		A	

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FRS001	COST23-1e	A	A	A		A	
FRS001	COST23-1f	A	A	A		A	
FRS001	COST23-1g	A	A	A		A	
FRS001	COST24-1	A	A	A		A	
FRS001	COST25-1	NA	A	NA		NA	
FRS001	COST26-1	NA	A	NA		NA	
FRS001	COST27-1	NA	A	NA		NA	
FRS001	COST27-2	NA	A	NA		NA	
FRS001	COST28-1	NA	A	NA		NA	
FRS001	COST29-1	NA	A	NA		NA	
FRS001	COST30-1	NA	A	NA		NA	
FRS001	COST31-1	A	A	A		A	
FRS001	COST31-1a	A	A	A		A	
FRS001	COST31-1b	A	A	A		A	
FRS001	COST31-1c	A	A	A		A	
FRS001	COST31-1d	A	A	A		A	
FRS001	COST31-1e	A	A	A		A	
FRS001	COST31-1f	A	A	A		A	
FRS001	COST31-1g	NA	A	NA		NA	
FRS001	COST32-1	A	A	A		A	
FRS001	COST32-2	A	A	A		A	
FRS001	COST32-3	A	A	A		A	
FRS001	COST33-1	A	A	A		A	
FRS001	COST34-1	A	A	A		A	
FRS001	COST35-1	A	A	A		A	
FRS001	COST36-1	NA	A	NA		NA	
FRS001	COST37-1	NA	A	NA		NA	
FRS001	COST38-1	A	A	A		NA	
FRS001	COST39-1	A	A	A		NA	
FRS001	COST40-1	A	A	A		NA	
FRS001	COST41-1	A	A	A		A	

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FRS001	COST41-1a	A	A	A		A	
FRS001	COST41-1b	A	A	A		A	
FRS001	COST41-1c	A	A	A		A	
FRS001	COST41-1d	A	A	A		A	
FRS001	COST41-1e	A	A	A		A	
FRS001	COST41-1f	A	A	A		A	
FRS001	COST41-1g	A	A	A		A	
FRS001	COST41-1h	A	A	A		A	
FRS001	COST41-1i	NA	A	NA		NA	
FRS001	COST41-1j	A	A	A		NA	
FRS001	COST42-1	A	A	A		A	
FRS001	COST42-2	A	NA	A		A	
FRS001	COST43-1	A	A	A	Which alarms that shall be sent to the TCS/LOP and to the diagnostic system shall be clarified with the Customer.	A	
FRS001	COST44-1	A	A	A	Which alarms that shall be sent to the TCS/LOP and to the diagnostic system shall be clarified with the Customer.	A	
FRS001	COST44-2	A	A	A		A	
FRS001	COST45-1	A	A	A		A	
FRS001	COST46-1	A	A	A	This is a proposal for commands to WA. Ref to doc "Instructions to Tenderer" concerning Tenderer's input on specific technical and operational issues.	A	
FRS001	COST46-2	A	A	A	This is a proposal for commands to WA. Ref to doc "Instructions to Tenderer" concerning Tenderer's input on specific technical and operational issues.	A	

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FRS001	COST47-1	NA	A	NA	This is a proposal for commands to WA. Ref to doc "Instructions to Tenderer" concerning Tenderer's input on specific technical and operational issues.	NA	
FRS001	COST47-2	NA	A	NA	This is a proposal for commands to WA. Ref to doc "Instructions to Tenderer" concerning Tenderer's input on specific technical and operational issues.	NA	
FRS001	COST48-1	A	A	A	This is a proposal for commands to WA. Ref to doc "Instructions to Tenderer" concerning Tenderer's input on specific technical and operational issues.	A	
FRS001	COST49-1	NA	A	NA		NA	
FRS002	TMA-DK1-1	Ai	Ai	Ai		Ai	
FRS002	TMA-DK1-2	Ai	Ai	Ai		Ai	
FRS002	TMA-DK1-3	Ai	Ai	Ai		Ai	
FRS002	TMA-DK1-4	Ai	Ai	Ai		Ai	
FRS002	TMA-DK1-5	Ai	Ai	Ai		Ai	
FRS002	TMA-DK1-6	Ai	Ai	Ai		Ai	
FRS002	TMA-DK1-7	Ai	Ai	Ai		Ai	
FRS002	TMA-DK1-8	Ai	Ai	Ai		Ai	
FRS002	TMA-DK1-9	Ai	Ai	Ai		Ai/NAi	a) Ai b) NAi c)NAi
FRS002	TMA-DK1-10	NAi	Ai	NAi		NAi	
FRS002	TMA-DK2-1	Ai	Ai	Ai		Ai	
FRS002	TMA-DK2-2	Ai	Ai	Ai		Ai	
FRS002	TMA-DK2-3	Ai	Ai	Ai		Ai	
FRS002	TMA-DK2-4	Ai	Ai	Ai		Ai	
FRS002	TMA-DK2-5	Ai	Ai	Ai		Ai	
FRS002	TMA-DK2-6	Ai	Ai	Ai		NAi	



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FRS002	TMA-DK2-7	Ai	Ai	Ai		NAi	
FRS002	TMA-DK3-1	NAi	Ai	NAi		NAi	
FRS002	TMA-DK3-2	NAi	Ai	NAi		NAi	
FRS002	TMA-DK4-1	Ai	Ai	Ai		Ai	
FRS002	TMA-DK4-2	Ai	Ai	Ai		Ai	
FRS002	TMA-DK5-1	Ai	Ai	Ai		Ai	
FRS002	TMA-DK5-3	Ai	Ai	Ai		Ai	
FRS002	TMA-DK5-4	Ai	Ai	Ai		Ai	
FRS002	TMA-DK5-5	NAi	Ai	NAi		NAi	
FRS002	TMA1-1	A	A	A		A	
FRS002	TMA1-1a	A	A	A		A	
FRS002	TMA1-1b	NA	A	NA		NA	
FRS002	TMA1-1c	NA	A	NA		NA	
FRS002	TMA1-1d	A	A	A		A	
FRS002	TMA1-2	A	A	A		A	
FRS002	TMA1-3	NA	A	NA		NA	
FRS002	TMA1-4	NA	A	NA		NA	
FRS002	TMA1-5	NA	A	NA		NA	
FRS002	TMA2-1	A	A	A		A	
FRS002	TMA2-3	A	A	A		A	
FRS002	TMA2-4	A	A	A		A	
FRS002	TMA3-1	A	A	A		A	
FRS002	TMA3-1a	A	A	A		A	
FRS002	TMA3-1b	A	A	A		A	
FRS002	TMA3-1c	A	A	A		A	
FRS002	TMA3-1d	A	A	A		A	
FRS002	TMA3-1e	A	A	A		A	
FRS002	TMA3-1f	A	A	A		A	
FRS002	TMA3-1g	A	A	A		A	
FRS002	TMA3-1h	A	A	A		A	
FRS002	TMA3-1i	A	A	A		A	

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FRS002	TMA3-1j	A	A	A		A	
FRS002	TMA3-1k	A	A	A		A	
FRS002	TMA3-1l	A	A	A		A	
FRS002	TMA3-2	A	A	A		A	
FRS002	TMA4-1	A	A	A		A	
FRS002	TMA4-2	A	A	A		NA	
FRS002	TMA4-3	A	A	A		A	
FRS002	TMA4-3a	A	A	A		A	
FRS002	TMA4-3b	A	A	A		A	Ref. to interlocking tables
FRS002	TMA4-4	A	A	A		A	
FRS002	TMA4-4a	A	A	A		A	
FRS002	TMA4-4b	A	A	A		A	
FRS002	TMA4-4c	A	A	A		A	
FRS002	TMA4-5	A	A	A		A	
FRS002	TMA 4-6	A	A	A		NA	
FRS002	TMA4-7	A	A	A		A	
FRS002	TMA4-9	A	A	A		A	
FRS002	TMA5-1	A	A	A		A	
FRS002	TMA5-2	A	A	A		A	
FRS002	TMA5-4	A	A	A		A	
FRS002	TMA5-5	NA	A	NA		NA	NA på ØØL
FRS002	TMA5-6	NA	A	NA		NA	NA på ØØL
FRS002	TMA6-1	A	A	A		A	
FRS002	TMA6-2	A	A	A		A	
FRS002	TMA6-3	A	A	A		A	
FRS002	TMA6-4	A	A	A		A	
FRS002	TMA6-5	A	A	A		A	Ref to interlocking tables.
FRS002	TMA6-6	A	A	A		A	
FRS002	TMA6-7	A	A	A		A	
FRS002	TMA6-8	A	A	A		A	
FRS002	TMA7-1	A	A	A		A	

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FRS002	TMA8-1	A	NA	A		A	
FRS002	TMA8-2	A	NA	A		A	
FRS002	TMA8-3	A	NA	A		NA	
FRS002	TMA9-1	A	NA	A		NA	
FRS002	TMA9-2	A	NA	A		NA	
FRS002	TMA10-1	A	A	A		A	
FRS002	TMA10-2	A	A	A		A	
FRS002	TMA10-2a	A	A	A		A	
FRS002	TMA10-2b	A	A	A		A	
FRS002	TMA10-4	A	A	A		NA	
FRS002	TMA10-5	A	A	A		NA	
FRS002	TMA10-6	A	A	A		A	
FRS002	TMA10-7	A	A	A		NA	
FRS002	TMA11-1	A	A	A		A	Ref to interlocking tables.
FRS002	TMA13-1	A	A	A		A	
FRS002	TMA13-2	A	A	A		A	
FRS002	TMA14-1	NA	A	NA		NA	
FRS002	TMA15-1	NA	A	NA		NA	
FRS002	TMA15-2	NA	A	NA		NA	
FRS002	TMA15-3	NA	A	NA		NA	
FRS002	TMA18-1	NA	A	NA		NA	
FRS002	TMA18-2	NA	A	NA		NA	
FRS002	TMA19-1	NA	A	NA		NA	
FRS002	TMA20-1	NA	A	NA		NA	
FRS002	TMA20-2	NA	A	NA		NA	
FRS002	TMA20-3	NA	A	NA		NA	
FRS002	TMA20-4	NA	A	NA		NA	
FRS002	TMA22-1	NA	A	NA		NA	
FRS002	TMA23-1	NA	A	NA		NA	
FRS002	TMA23-2	NA	A	NA		NA	
FRS002	TMA23-3	NA	A	NA		NA	

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FRS002	TMA24-1	NA	A	NA		NA	
FRS002	TMA24-1a	NA	A	NA		NA	
FRS002	TMA24-1b	NA	A	NA		NA	
FRS002	TMA24-1c	NA	A	NA		NA	
FRS002	TMA24-2	NA	A	NA		NA	
FRS002	TMA26-1	NA	A	NA		NA	
FRS002	TMA27-1	NA	A	NA		NA	
FRS002	TMA27-2	NA	A	NA		NA	
FRS002	TMA28-1	NA	A	NA		NA	
FRS002	TMA28-2	NA	A	NA		NA	
FRS002	TMA28-3	NA	A	NA		NA	
FRS002	TMA29-1	NA	A	NA		NA	
FRS002	TMA29-3	NA	A	NA		NA	
FRS002	TMA29-8	NA	A	NA		NA	
FRS002	TMA30-1	NA	A	NA		NA	
FRS002	TMA31-3	NA	A	NA		NA	
FRS002	TMA32-1	A	A	A		A	
FRS002	TMA32-3	NA	A	NA		NA	Ref to interlocking table
FRS002	TMA32-4	NA	A	NA		NA	Ref to interlocking table
FRS002	TMA33-1	A	A	A		A	
FRS002	TMA33-2	A	A	A		A	
FRS002	TMA33-3	A	A	A		A	
FRS002	TMA33-4	NA	A	NA		NA	
FRS002	TMA34-1	A	A	A		A	
FRS002	TMA34-1a	A	A	A		A	
FRS002	TMA34-1b	NA	A	NA		NA	
FRS002	TMA34-1c	NA	A	NA		NA	
FRS002	TMA34-2	A	A	A		A	
FRS002	TMA34-3	A	A	A		A	
FRS002	TMA34-4	A	A	A		A	
FRS002	TMA34-5	A	A	A		A	

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FRS002	TMA34-6	A	A	A		A	
FRS002	TMA35-1	NA	A	NA		NA	
FRS002	TMA35-2	NA	A	NA		NA	
FRS002	TMA35-3	NA	A	NA		NA	
FRS002	TMA35-4	NA	A	NA		NA	
FRS002	TMA37-1	NA	A	NA		NA	
FRS002	TMA38-2	NA	A	NA		NA	
FRS002	TMA38-4	A	NA	A		A	
FRS002	TMA38-5	A	A	A		A	
FRS002	TMA39-1	NA	A	NA		NA	
FRS002	TMA39-3	NA	A	NA		NA	
FRS002	TMA42-1	A	A	A		A	
FRS002	TMA42-2	A	A	A		A	
FRS002	TMA44-1	A	A	A	Request for activation of a TSA shall be rejected if the TSA interferes with a locked WA.	A	
FRS002	TMA44-1a	A	A	A		A	
FRS002	TMA44-1b	A	A	A		A	
FRS002	TMA44-1c	A	A	A		A	
FRS002	TMA44-1d	A	A	A		A	
FRS002	TMA44-1e	A	A	A		A	
FRS002	TMA44-2	A	A	A		A	
FRS002	TMA45-1	A	A	A		A	
FRS002	TMA46-1	A	A	A		A	
FRS002	TMA47-1	NA	A	NA		NA	
FRS002	TMA47-2	NA	A	NA		NA	
FRS002	TMA47-3	NA	A	NA		NA	
FRS002	TMA47-4	NA	A	NA		NA	
FRS002	TMA47-5	NA	A	NA		NA	
FRS002	TMA48-1	A	A	A		A	
FRS002	TMA48-2	NA	A	NA		NA	

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FRS002	TMA48-3	A	A	A		A	
FRS002	TMA48-4	A	A	A	Ref to interlocking table for time delay of a TSA.	A	Ref to interlocking table for time delay of a TSA.
FRS002	TMA48-5	A	A	A		A	
FRS002	TMA48-6	A	A	A		A	
FRS002	TMA48-7	A	A	A		A	
FRS002	TMA49-1	A	A	A		A	
FRS002	TMA49-2	A	A	A		A	
FRS002	TMA49-3	A	A	A		A	
FRS002	TMA49-4	A	A	A		A	
FRS002	TMA49-5	NA	A	NA		NA	
FRS002	TMA50-1	A	A	A		A	Ref to interlocking table for application data for a TSA.
FRS002	TMA51-1	NA	A	NA		NA	
FRS002	TMA51-1a	NA	A	NA		NA	
FRS002	TMA51-1b	NA	A	NA		NA	
FRS002	TMA51-1c	NA	A	NA		NA	
FRS002	TMA51-1d	NA	A	NA		NA	
FRS002	TMA51-2	NA	A	NA		NA	
FRS002	TMA51-3	NA	A	NA		NA	
FRS002	TMA51-4	NA	A	NA		NA	
FRS002	TMA51-5	NA	A	NA		NA	
FRS002	TMA52-1	A	A	A		A/NA	b) NA c) NA d) NA e) NA
FRS002	TMA52-2	A	A	A		A	
FRS003	SO-DK1- 1	Ai	Ai	Ai	HHT is NA	Ai	HHT is NA
FRS003	SO-DK1- 2	Ai	Ai	Ai	HHT is NA	Ai	HHT is NA
FRS003	SO-DK1- 3	Ai	Ai	Ai	As defined by application data	Ai	

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FRS003	SO-DK1- 4	Ai	Ai	Ai	These functions shall also be possible to actuate from LOP.	Ai	
FRS003	SO-DK1- 5	Ai	Ai	Ai		Ai	
FRS003	SO-DK1- 6	Ai	Ai	Ai		Ai	
FRS003	SO-DK1- 7	Ai	Ai	Ai		Ai	
FRS003	SO-DK1- 8	Ai	Ai	Ai		Ai	
FRS003	SO-DK1- 9	Ai	Ai	Ai		Ai	
FRS003	SO-DK1-10	Ai	Ai	Ai		Ai	
FRS003	SO-DK1-11	Ai	Ai	Ai		Ai	
FRS003	SO-DK1-12	Ai	Ai	Ai		Ai	
FRS003	SO-DK2- 1	Ai	Ai	Ai		Ai	
FRS003	SO-DK2- 2	Ai	Ai	Ai		Ai	
FRS003	SO-DK2- 3	Ai	Ai	Ai		Ai	
FRS003	SO-DK3-1	Ai	Ai	Ai		Ai	Axel counting systems will be used and not Track circuits.
FRS003	SO-DK4-1	Ai	Ai	Ai		Ai	
FRS003	SO-DK4-1a	Ai	Ai	Ai		Ai	
FRS003	SO-DK4-1b	Ai	Ai	Ai	Crank cabinet is A	Ai	Crank cabinet is A
FRS003	SO-DK4-1c	Ai	Ai	Ai	Point heating is A	Ai	Point heating is A
FRS003	SO-DK4-1d	Ai	Ai	Ai		Ai	
FRS003	SO-DK4-1e	Ai	Ai	Ai		Ai	
FRS003	SO-DK4-2	Ai	Ai	Ai		Ai	
FRS003	SO-DK4-3	Ai	Ai	Ai		Ai	
FRS003	SO1- 1	A	A	A		A	
FRS003	SO1- 1a	A	A	A		A	
FRS003	SO1- 1b	A	A	A		A	
FRS003	SO1- 1c	A	A	A		A	
FRS003	SO1- 1d	A	A	A		A	
FRS003	SO1- 1e	NA	A	NA		NA	
FRS003	SO1- 2	A	A	A		A	
FRS003	SO1- 3	A	A	A		A	

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FRS003	SO1- 4	A	A	A		A	
FRS003	SO1- 5	A	A	A		A	
FRS003	SO1- 6	A	A	A		A	
FRS003	SO1- 7	A	A	A		A	
FRS003	SO1- 8	A	A	A		A	
FRS003	SO1- 9	A	A	A		NA	Single slip point is NA
FRS003	SO1-10	A	A	A		A	
FRS003	SO1-11	A	A	A		A	
FRS003	SO1-12	A	A	A		A	
FRS003	SO2-1	A	A	A		A	
FRS003	SO2-2	A	A	A		A	
FRS003	SO2-3	A	A	A		A	
FRS003	SO2-4	A	A	A		A	
FRS003	SO3-1	A	A	A		A	
FRS003	SO3-2	A	A	A		A	
FRS003	SO3-3	A	A	A		A	
FRS003	SO3-4	A	A	A		A	
FRS003	SO4-1	A	A	A		A	
FRS003	SO4-2	A	A	A		A	
FRS003	SO4-3	A	A	A		A	
FRS003	SO4-6	A	A	A		A	
FRS003	SO4-7	A	A	A		A	
FRS003	SO5-1	A	A	A		A	
FRS003	SO5-2	A	A	A	HHT is NA	A	HHT is NA
FRS003	SO6-1	A	A	A	HHT is NA	A	HHT is NA
FRS003	SO6-2	A	A	A		A	
FRS003	SO6-3	A	A	A		A	
FRS003	SO6-4	A	A	A		A	
FRS003	SO6-5	A	A	A		A	
FRS003	SO7-1	A	A	A		A	The interface shall be able to handle up to 3 point machines for one point.



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FRS003	SO7-2	A	A	A		A	
FRS003	SO8-1	A	A	A		A	
FRS003	SO8-2	A	A	A		A	
FRS003	SO8-3	A	A	A		A	
FRS003	SO8-4	A	A	A		A	
FRS003	SO9-1	A	A	A		NA	
FRS003	SO9-2	A	A	A		A	
FRS003	SO9-3	A	A	A		A	
FRS003	SO9-4	A	A	A		A	
FRS003	SO9-5	A	A	A		A	
FRS003	SO9-6	A	A	A		A	
FRS003	SO9-7	A	A	A		A	
FRS003	SO10-1	A	A	A		A	
FRS003	SO10-2	A	A	A		A	
FRS003	SO10-3	A	A	A		A	
FRS003	SO10-4	A	A	A		A	
FRS003	SO10-5	A	A	A		A	
FRS003	SO11-1	A	A	A		A	
FRS003	SO12-1	A	A	A		A	
FRS003	SO13-1	A	A	A		A	
FRS003	SO13-2	A	A	A		A	
FRS003	SO13-3	A	A	A		A	
FRS003	SO14-1	A	A	A		A	
FRS003	SO14-3	A	A	A		A	
FRS003	SO15-1	A	A	A		A	
FRS003	SO15-2	A	A	A		A	
FRS003	SO15-3	A	A	A		A	
FRS003	SO16-1	A	A	A	As required due to data preparation	A	
FRS003	SO16-1a	A	A	A		A	
FRS003	SO16-1b	A	A	A		A	
FRS003	SO16-1c	A	A	A		A	

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FRS003	SO16-1d	A	A	A		A	
FRS003	SO16-1e	NA	A	NA		NA	
FRS003	SO16-1f	NA	A	NA		NA	
FRS003	SO16-1g	NA	A	NA		NA	
FRS003	SO16-2	A	A	A	As required due to data preparation	A	As required due to data preparation
FRS003	SO17-1	A	A	A		A	
FRS003	SO17-2	A	A	A		A	
FRS003	SO18-1	A	A	A		A	
FRS003	SO18-1a	A	A	A		A	
FRS003	SO18-1b	A	A	A		A	
FRS003	SO19-1	A	A	A		A	
FRS003	SO19-1a	A	A	A		A	
FRS003	SO19-1b	A	A	A		A	
FRS003	SO20-1	A	A	A	HHT is NA	A	HHT is NA
FRS003	SO20-2	A	A	A		A	
FRS003	SO20-3	A	A	A		A	
FRS003	SO21-1	A	A	A	HHT is NA	NA	HHT is NA
FRS004	ERF-DK1-1	NA	Ai	NA		NA	
FRS004	ERF-DK4-1	NA	Ai	NA		NA	
FRS004	ERF-DK5-1	NA	Ai	NA		NA	
FRS004	ERF-DK6-1	NA	Ai	NA		NA	
FRS004	ERF-DK7-1	NA	Ai	NA		NA	
FRS004	ERF2-1	NA	A	NA		NA	
FRS004	ERF2-1a	NA	A	NA		NA	
FRS004	ERF2-1b	NA	A	NA		NA	
FRS004	ERF2-1c	NA	A	NA		NA	
FRS004	ERF2-1d	NA	A	NA		NA	
FRS004	ERF2-1e	NA	A	NA		NA	
FRS004	ERF2-1f	NA	A	NA		NA	
FRS004	ERF2-1g	NA	A	NA		NA	
FRS004	ERF2-1h	NA	A	NA		NA	

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FRS004	ERF2-1i	NA	A	NA		NA	
FRS004	ERF2-1j	NA	A	NA		NA	
FRS004	ERF2-3	NA	A	NA		NA	
FRS004	ERF2-4	NA	A	NA		NA	
FRS004	ERF3-1	NA	A	NA		NA	
FRS004	ERF3-2	NA	A	NA		NA	
FRS004	ERF3-3	NA	A	NA		NA	
FRS004	ERF3-4	NA	A	NA		NA	
FRS004	ERF3-6	NA	A	NA		NA	
FRS004	ERF4-1	NA	A	NA		NA	
FRS004	ERF4-2	NA	A	NA		NA	
FRS004	ERF6-1	NA	A	NA		NA	
FRS004	ERF6-2	NA	A	NA		NA	
FRS004	ERF14-2	NA	A	NA		NA	
FRS004	ERF14-3	NA	A	NA		NA	
FRS004	ERF14-4	NA	A	NA		NA	
FRS004	ERF14-8	NA	A	NA		NA	
FRS004	ERF14-9	NA	A	NA		NA	
FRS004	ERF15-1	NA	A	NA		NA	
FRS004	ERF15-3	NA	A	NA		NA	
FRS004	ERF15-4	NA	A	NA		NA	
FRS004	ERF15-5	NA	A	NA		NA	
FRS004	ERF16-2	NA	A	NA		NA	
FRS004	ERF16-3	NA	A	NA		NA	
FRS004	ERF20-2	NA	A	NA		NA	
FRS004	ERF23-1	NA	A	NA		NA	
FRS004	ERF23-2	NA	A	NA		NA	
FRS004	ERF23-6	NA	A	NA		NA	
FRS004	ERF27-1	NA	A	NA		NA	
FRS004	ERF28-1	NA	A	NA		NA	
FRS004	ERF28-2	NA	A	NA		NA	

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FRS004	ERF29-2	NA	A	NA		NA	
FRS004	ERF29-2a	NA	A	NA		NA	
FRS004	ERF29-2b	NA	A	NA		NA	
FRS004	ERF29-2c	NA	A	NA		NA	
FRS004	ERF29-2d	NA	A	NA		NA	
FRS004	ERF29-2e	NA	A	NA		NA	
FRS004	ERF29-2f	NA	A	NA		NA	
FRS004	ERF29-2g	NA	A	NA		NA	
FRS004	ERF29-2h	NA	A	NA		NA	
FRS004	ERF29-2i	NA	A	NA		NA	
FRS004	ERF29-2j	NA	A	NA		NA	
FRS004	ERF29-2k	NA	A	NA		NA	
FRS004	ERF29-2l	NA	A	NA		NA	
FRS004	ERF29-2m	NA	A	NA		NA	
FRS004	ERF29-2n	NA	A	NA		NA	
FRS004	ERF29-2o	NA	A	NA		NA	
FRS004	ERF29-2p	NA	A	NA		NA	
FRS004	ERF29-2q	NA	A	NA		NA	
FRS004	ERF29-2r	NA	A	NA		NA	
FRS004	ERF29-2s	NA	A	NA		NA	
FRS004	ERF30-1	NA	A	NA		NA	
FRS004	ERF34-1	NA	A	NA		NA	
FRS004	ERF34-3	NA	A	NA		NA	
FRS004	ERF36-1	NA	A	NA		NA	
FRS005	LS-DK1-1	Ai	Ai	Ai		Ai	
FRS005	LS-DK1-2	Ai	Ai	Ai		Ai	
FRS005	LS-DK1-3	Ai	Ai	Ai		Ai	
FRS005	LS-DK1-4	Ai	Ai	Ai		Ai	
FRS005	LS-DK1-5	Ai	Ai	Ai		Ai	
FRS005	LS-DK1-6	Ai	Ai	Ai		Ai	
FRS005	LS-DK1-7	Ai	Ai	Ai		NAi	High shunting signal is NA

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FRS005	LS-DK1-8	Ai	Ai	Ai		Ai	Signal 46A
FRS005	LS-DK1-9	Ai	Ai	Ai		Ai	Direction signal is NA
FRS005	LS-DK1-10	Ai	Ai	Ai		Ai	
FRS005	LS-DK1-11	Ai	Ai	Ai		NAi	
FRS005	LS1-1	A	Ai	A		A	
FRS005	LS1-3	A	Ai	A		A	
FRS005	LS1-4	A	Ai	A		A	
FRS005	LS1-5	A	Ai	A		A	
FRS005	LS1-6	A	Ai	A		A	
FRS005	LS1-7	A	Ai	A		A	
FRS005	LS1-8	A	Ai	A		A	
FRS005	LS1-9	A	Ai	A		A	
FRS005	LS2-1	A	Ai	A		A	
FRS005	LS2-2	A	Ai	A		A	
FRS005	LS2-3	A	Ai	A		A	
FRS005	LS2-4	A	Ai	A		A	
FRS005	LS2-5	A	Ai	A		A	
FRS005	LS4-1	A	Ai	A		A	
FRS005	LS4-2	A	Ai	A		A	
FRS005	LS4-3	A	Ai	A		A	
FRS005	LS4-4	A	Ai	A		A	
FRS005	LS4-5	A	Ai	A		A	
FRS005	LS5-1	A	Ai	A		A	
FRS005	LS5-2	A	Ai	A		A	
FRS005	LS5-3	A	Ai	A		A	
FRS005	LS5-4	A	Ai	A		A	
FRS005	LS5-5	A	Ai	A		A	
FRS005	LS7-1	A	Ai	A		A	
FRS005	LS7-2	A	Ai	A		A	
FRS005	LS7-3	A	Ai	A		A	
FRS005	LS7-4	A	Ai	A		NA	

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FRS005	LS7-5	A	Ai	A		A	
FRS005	LS8-1	A	Ai	A		A/NA	d) NA e) NA f) NA
FRS005	LS8-2	A	Ai	A		A	
FRS005	LS8-3	A	Ai	A		A	
FRS005	LS9-1	A	Ai	A		A/NA	d) NA e) NA f) NA
FRS005	LS9-2	A	Ai	A		A	
FRS005	LS9-3	A	Ai	A		A	
FRS005	LS10-1	A	Ai	A		A	
FRS005	LS11-1	A	Ai	A		A/NA	b) NA d) NA
FRS005	LS11-2	A	Ai	A		A	
FRS005	LS11-3	A	Ai	A		A	
FRS005	LS11-4	A	Ai	A		A	
FRS005	LS11-5	A	Ai	A		NA	
FRS005	LS12-1	A	Ai	A		A/NA	b) NA d) NA
FRS005	LS12-2	A	Ai	A		A	
FRS005	LS12-3	A	Ai	A		A	
FRS005	LS12-4	A	Ai	A		NA	
FRS005	LS13-1	A	Ai	A		A	
FRS005	LS14-1	A	Ai	A		A	
FRS005	LS14-2	A	Ai	A		A	
FRS005	LS14-3	A	Ai	A		A	
FRS005	LS15-1	A	Ai	A		NA	
FRS005	LS15-2	A	Ai	A		NA	
FRS005	LS15-3	A	Ai	A		NA	
FRS005	LS15-4	A	Ai	A		NA	

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FRS005	LS16-1	A	Ai	A		A	
FRS005	LS16-2	A	Ai	A		A	
FRS005	LS16-3	A	Ai	A		A	
FRS005	LS16-4	A	Ai	A		A	
FRS005	LS17-1	A	Ai	A		A	
FRS005	LS18-1	A	Ai	A		NA	
FRS005	LS19-1	A	Ai	A		NA	
FRS005	LS19-2	A	Ai	A		NA	
FRS005	LS20-1	A	Ai	A		A	
FRS005	LS20-2	A	Ai	A		A	
FRS005	LS20-3	A	Ai	A		A	
FRS005	LS20-4	A	Ai	A		A	
FRS005	LS20-5	A	Ai	A		A	
FRS005	LS20-7	A	Ai	A		A	
FRS005	LS21-1	A	Ai	A		A	
FRS005	LS21-2	A	Ai	A		A	
FRS005	LS21-3	A	Ai	A		A	
FRS005	LS21-4	A	Ai	A		A	
FRS005	LS22-3	A	Ai	A		A	
FRS005	LS23-1	A	Ai	A		A	
FRS005	LS23-2	A	Ai	A		A	
FRS005	LS24-1	A	Ai	A		A	
FRS005	LS24-2	A	Ai	A		A	
FRS005	LS27-1	A	Ai	A		A	
FRS005	LS27-2	A	Ai	A		A	
FRS005	LS28-1	A	Ai	A		A	
FRS005	LS29-1	A	Ai	A		A	Signal 46A
FRS005	LS29-2	A	Ai	A		A	
FRS005	LS29-3	A	Ai	A		A	
FRS005	LS29-4	A	Ai	A		NA	
FRS005	LS31-1	A	Ai	A		NA	

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FRS005	LS31-2	A	Ai	A		NA	
FRS005	LS32-1	A	Ai	A		NA	
FRS005	LS32-2	A	Ai	A		NA	
FRS005	LS32-3	A	Ai	A		NA	
FRS006	ATP-DK1- 1	Ai	Ai	Ai		Ai	
FRS006	ATP-DK1- 2	Ai	Ai	Ai		Ai	
FRS006	ATP-DK1- 3	Ai	NAi	Ai	ATC is NA for ERTMS	Ai	
FRS006	ATP-DK1- 4	NAi	Ai	NAi		NAi	
FRS006	ATP-DK1- 5	Ai	Ai	Ai		Ai	
FRS006	ATP-DK1- 6	Ai	Ai	Ai		Ai	
FRS006	ATP-DK1- 7	Ai	Ai	Ai		Ai	
FRS006	ATP-DK1- 8	Ai	Ai	Ai		Ai	
FRS006	ATP-DK1- 9	Ai	Ai	Ai		Ai	
FRS006	ATP-DK1-10	Ai	Ai	Ai		Ai	
FRS006	ATP-DK1-11	Ai	Ai	Ai		Ai	
FRS006	ATP-DK1-12	Ai	Ai	Ai		Ai	
FRS006	ATP1-1	A	A	A		A	
FRS006	ATP1-2	A	A	A	ERTMS shall be able to operate on maximum speed according to SRS.	A	
FRS006	ATP1-5	A	A	A		A	
FRS006	ATP1-6	A	A	A		A/NA	a) Signal is A b) Point and derailer is A c) TVP system is A d) Level crossing system is NA e) Avalanche system is NA f) Tunnel gates system is NA g) Detector is NA h) Generic I/O is NA
FRS006	ATP2-1	A	A	A		A	
FRS006	ATP3-1	A	A	A		A	
FRS006	ATP3-2	A	A	A		A	



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FRS006	ATP4-1	A	NA	A	ATC is NA for ERTMS	A	
FRS006	ATP4-2	A	NA	A	ATC is NA for ERTMS	A	
FRS006	ATP4-3	A	NA	A	ATC is NA for ERTMS	A	
FRS006	ATP6-1	NA	A	NA		NA	
FRS006	ATP6-2	NA	A	NA		NA	
FRS007	WA-DK1-1	Ai	Ai	Ai		Ai	
FRS007	WA-DK1-2	Ai	Ai	Ai		Ai	
FRS007	WA-DK1-3	Ai	Ai	Ai	HHT is NA	Ai	HHT is NA
FRS007	WA-DK1-4	Ai	Ai	Ai		Ai	
FRS007	WA-DK1-5	Ai	Ai	Ai	HHT is NA	Ai	HHT is NA
FRS007	WA-DK1-6	Ai	Ai	Ai		Ai	
FRS007	WA-DK1-7	Ai	Ai	Ai	HHT is NA	Ai	HHT is NA
FRS007	WA-DK1-8	Ai	Ai	Ai		Ai	
FRS007	WA-DK1-9	Ai	Ai	Ai		Ai	
FRS007	WA-DK1-10	Ai	Ai	Ai		Ai	
FRS007	WA1-1	A	A	A		A	
FRS007	WA1-3	A	A	A	HHT is NA	A	HHT is NA
FRS007	WA1-3a	A	A	A		A	Point is A. Derailer is NA.
FRS007	WA1-3b	A	A	A		NA	
FRS007	WA1-3c	A	A	A		NA	
FRS007	WA1-5	A	A	A		A	
FRS007	WA1-5a	A	A	A		A	
FRS007	WA1-5b	A	A	A		A	
FRS007	WA1-5c	A	A	NA	HHT is NA	NA	HHT is NA
FRS007	WA1-6	A	A	A		A	
FRS007	WA1-6a	A	A	A		A	
FRS007	WA1-6b	A	A	A		A	
FRS007	WA1-6c	A	A	NA	HHT is NA	NA	HHT is NA
FRS007	WA1-7	NA	A	NA		NA	
FRS007	WA1-8	NA	A	NA		NA	
FRS007	WA2-1	A	A	A		A	

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FRS007	WA2-1a	A	A	A		A	
FRS007	WA2-1b	A	A	A	HHT is NA	A	
FRS007	WA2-1c	A	A	A		A	
FRS007	WA2-2	A	A	A		A	
FRS007	WA2-2a	A	A	A		A	
FRS007	WA2-2b	A	A	NA	HHT is NA	NA	HHT is NA
FRS007	WA3-1	A	A	A		A	
FRS007	WA3-1a	A	A	A		A	
FRS007	WA3-1b	A	A	A		A	
FRS007	WA3-1c	A	A	A		A	
FRS007	WA3-1d	A	A	NA	HHT is NA	NA	HHT is NA
FRS007	WA3-1e	A	A	A		A	
FRS007	WA3-2	A	A	A		A	
FRS007	WA3-2a	A	A	A		A	
FRS007	WA3-2b	A	A	NA	HHT is NA	NA	HHT is NA
FRS007	WA3-3	A	A	A		A	
FRS007	WA3-4	A	A	A		A	
FRS007	WA4-1	A	A	NA	HHT is NA	NA	
FRS007	WA4-1a	A	A	NA		NA	
FRS007	WA4-1b	A	A	NA		NA	
FRS007	WA4-1c	A	A	NA		NA	
FRS007	WA5-1	A	A	A		A	
FRS007	WA5-1a	A	A	A	HHT is NA	A	HHT is NA
FRS007	WA5-1b	A	A	A		A	
FRS007	WA5-2	A	A	A		A	
FRS007	WA5-2a	A	A	A		A	
FRS007	WA5-2b	A	A	NA	HHT is NA	NA	HHT is NA
FRS007	WA5-3	A	A	A	HHT is NA	A	HHT is NA
FRS007	WA5-4	A	A	A		A	
FRS007	WA5-5	A	A	A		A	
FRS007	WA6-1	A	A	A		A	

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FRS007	WA6-2	A	A	A		A	
FRS007	WA6-3	A	A	A		A	
FRS007	WA6-4	A	A	A		A	
FRS007	WA7-1	A	A	A		A	
FRS007	WA7-2	A	A	NA	HHT is NA	NA	HHT is NA
FRS007	WA7-3	A	A	A		A	
FRS007	WA7-4	A	A	A		A	
FRS007	WA7-5	A	A	A		A	
FRS008	LX-DK1-1	Ai	Ai	Ai		NAi	
FRS008	LX-DK1-2	Ai	Ai	Ai		NAi	
FRS008	LX-DK1-3	Ai	Ai	Ai		NAi	
FRS008	LX-DK1-4	Ai	Ai	Ai		NAi	
FRS008	LX-DK1-5	Ai	Ai	Ai		NAi	
FRS008	LX-DK1-6	Ai	Ai	Ai		NAi	
FRS008	LX-DK1-7	Ai	Ai	Ai		NAi	
FRS008	LX-DK1-8	Ai	Ai	Ai		NAi	
FRS008	LX-DK1-9	Ai	Ai	Ai		NAi	
FRS008	LX-DK2-1	Ai	Ai	Ai		NAi	
FRS008	LX-DK2-2	Ai	Ai	Ai		NAi	
FRS008	LX-DK2-3	Ai	Ai	Ai		NAi	
FRS008	LX-DK2-4	Ai	Ai	Ai		NAi	
FRS008	LX-DK2-5	Ai	Ai	Ai		NAi	
FRS008	LX-DK3-1	Ai	Ai	Ai		NAi	
FRS008	LX-DK3-2	Ai	Ai	Ai		NAi	
FRS008	LX-DK3-3	Ai	Ai	Ai		NAi	
FRS008	LX-DK3-4	Ai	Ai	Ai		NAi	
FRS008	LX1-1	A	A	A		NA	
FRS008	LX1-2	A	A	A		NA	
FRS008	LX1-3	A	A	A		NA	
FRS008	LX1-4	A	A	A		NA	
FRS008	LX1-5	A	A	A		NA	

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FRS008	LX1-6	A	A	A		NA	
FRS008	LX1-7	A	A	A		NA	
FRS008	LX1-8	A	A	A		NA	
FRS008	LX1-9	A	A	A		NA	
FRS008	LX2-1	A	A	A		NA	
FRS008	LX2-2	A	A	A		NA	
FRS008	LX2-3	A	A	A		NA	
FRS008	LX2-3a	A	A	A		NA	
FRS008	LX2-3b	A	A	A		NA	
FRS008	LX2-3c	A	A	A		NA	
FRS008	LX2-3d	A	A	A	Flash frequency for all signals for the level crossing.	NA	
FRS008	LX2-3e	A	A	A	Time delay for lowering of barriers shall be according to "JD 550 kap 9 avsnitt 2.5.1 d) forringingstid".	NA	
FRS008	LX2-4	A	A	A	Time delay for lowering of barriers shall be according to "JD 550 kap 9 avsnitt 2.5.1 d) forringingstid".	NA	
FRS008	LX2-5	A	A	A		NA	
FRS008	LX2-5a	A	A	A		NA	
FRS008	LX2-5b	A	A	A		NA	
FRS008	LX2-5c	A	A	A		NA	
FRS008	LX2-5d	A	Ai	A		NA	
FRS008	LX2-5e	A	Ai	A		NA	
FRS008	LX3-1	A	A	A		NA	
FRS008	LX3-2	A	A	A		NA	
FRS008	LX3-3	A	A	A		NA	
FRS008	LX3-4	A	A	A		NA	
FRS008	LX3-5	A	A	A		NA	
FRS008	LX3-5a	A	A	A		NA	
FRS008	LX3-5b	A	A	A		NA	

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FRS008	LX3-5c	A	A	A	Flash frequency for all signals for the level crossing.	NA	
FRS008	LX4-1	A	A	A		NA	
FRS008	LX5-1	A	A	A	HHT is NA	NA	
FRS008	LX5-2	A	A	A	HHT is NA	NA	
FRS008	LX5-4	A	A	A		NA	
FRS008	LX5-4a	A	A	A	HHT is NA	NA	
FRS008	LX5-4b	A	A	A		NA	
FRS008	LX5-5	A	A	A		NA	
FRS008	LX5-6	A	A	A		NA	
FRS008	LX5-7	A	A	A		NA	
FRS008	LX6-1	A	A	A		NA	
FRS008	LX7-1	A	A	A		NA	
FRS008	LX7-2	A	A	A		NA	
FRS008	LX7-3	A	A	A		NA	
FRS008	LX7-4	A	A	A	Optical signals for railway vehicles may not be used for the level crossing in ERTMS application	NA	
FRS008	LX7-4a	A	A	A		NA	
FRS008	LX7-4b	A	Ai	A		NA	
FRS008	LX7-4c	A	Ai	A		NA	
FRS008	LX7-5	A	A	A	Optical signals for railway vehicles may not be used for the level crossing in ERTMS application	NA	
FRS008	LX7-5a	A	A	A		NA	
FRS008	LX7-5b	A	Ai	A		NA	
FRS008	LX7-5c	A	Ai	A		NA	
FRS008	LX7-6	A	A	A	Optical signals for railway vehicles may not be used for the level crossing in ERTMS application	NA	
FRS008	LX7-6a	A	A	A		NA	

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FRS008	LX7-6b	A	Ai	A		NA	
FRS008	LX7-6c	A	Ai	A		NA	
FRS008	LX7-7	A	A	A	Optical signals for railway vehicles may not be used for the level crossing in ERTMS application	NA	
FRS008	LX7-7a	A	A	A		NA	
FRS008	LX7-7b	A	Ai	A		NA	
FRS008	LX7-7c	A	Ai	A		NA	
FRS008	LX8-1	A	A	A		NA	
FRS008	LX8-2	A	A	A		NA	
FRS008	LX8-3	NA	A	NA		NA	
FRS008	LX8-4	NA	A	NA		NA	
FRS008	LX8-5	A	A	A		NA	
FRS008	LX8-6	A	A	A		NA	
FRS008	LX8-7	A	A	A		NA	
FRS008	LX9-1	A	NA	A		NA	
FRS009	AD-DK1-1	Ai	Ai	Ai		NAi	
FRS009	AD-DK1-3	Ai	Ai	Ai		NAi	
FRS009	AD-DK1-4	Ai	Ai	Ai		NAi	
FRS009	AD-DK1-6	Ai	Ai	Ai		NAi	
FRS009	AD-DK2-1	Ai	Ai	Ai		NAi	
FRS009	AD-DK2-2	Ai	Ai	Ai		NAi	
FRS009	AD-DK2-4	Ai	Ai	Ai		NAi	
FRS009	AD-DK3-1	Ai	Ai	Ai		NAi	
FRS009	AD-DK3-2	Ai	Ai	Ai		NAi	
FRS009	AD-DK3-3	Ai	Ai	Ai		NAi	
FRS009	AD-DK3-4	Ai	Ai	Ai		NAi	
FRS009	AD-DK3-5	Ai	Ai	Ai		NAi	
FRS009	AD-DK4-1	Ai	Ai	Ai		NAi	
FRS009	AD-DK4-2	Ai	Ai	Ai		NAi	
FRS009	AD-DK4-3	Ai	Ai	Ai		NAi	

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FRS009	AD1-1	A	A	A		NA	
FRS009	AD2-1	A	A	A		NA	
FRS009	AD3-1	A	A	A		NA	
FRS009	AD3-2	A	A	A		NA	
FRS009	AD3-2a	A	A	A		NA	
FRS009	AD3-2b	A	A	NA		NA	
FRS009	AD3-2c	A	A	A		NA	
FRS009	AD4-1	A	A	A		NA	
FRS009	AD4-3	A	A	A		NA	
FRS009	AD5-1	A	A	A		NA	
FRS009	AD5-2	A	A	A		NA	
FRS009	AD6-1	A	A	A		NA	
FRS009	AD6-2	A	A	A		NA	
FRS009	AD7-1	A	A	A		NA	
FRS009	AD17-1	A	A	A		NA	
FRS009	AD18-1	A	A	A		NA	
FRS009	AD19-1	A	A	A		NA	
FRS009	AD19-2	A	A	A		NA	
FRS009	AD20-1	A	A	A		NA	
FRS009	AD20-2	A	A	A		NA	
FRS009	AD21-1	A	A	A		NA	
FRS009	AD21-2	A	A	A		NA	
FRS009	AD21-3	A	A	A		NA	
FRS009	AD22-1	A	NA	A		NA	
FRS009	AD22-2	A	NA	A		NA	
FRS010	TG-DK1-1	Ai	Ai	Ai		NAi	
FRS010	TG-DK1-3	Ai	Ai	Ai		NAi	
FRS010	TG-DK1-4	Ai	Ai	Ai		NAi	
FRS010	TG-DK1-5	Ai	Ai	Ai		NAi	
FRS010	TG-DK1-6	Ai	Ai	Ai		NAi	
FRS010	TG-DK2-1	Ai	Ai	Ai		NAi	

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FRS010	TG-DK2-5	Ai	Ai	Ai		NAi	
FRS010	TG-DK3-1	Ai	Ai	Ai		NAi	
FRS010	TG-DK3-2	Ai	Ai	Ai		NAi	
FRS010	TG-DK3-3	Ai	Ai	Ai		NAi	
FRS010	TG-DK3-4	Ai	Ai	Ai		NAi	
FRS010	TG-DK3-5	Ai	Ai	Ai		NAi	
FRS010	TG-DK4-1	Ai	Ai	Ai		NAi	
FRS010	TG-DK4-2	Ai	Ai	Ai		NAi	
FRS010	TG-DK4-3	Ai	Ai	Ai		NAi	
FRS010	TG1-1	A	A	A	HHT is NA	NA	
FRS010	TG2-1	A	A	A		NA	
FRS010	TG3-1	A	A	A		NA	
FRS010	TG4-1	A	A	A	HHT is NA	NA	
FRS010	TG5-1	A	A	A		NA	
FRS010	TG6-1	A	A	A		NA	
FRS010	TG7-1	A	A	A		NA	
FRS010	TG8-1	A	A	A		NA	
FRS010	TG9-1	A	A	A		NA	
FRS010	TG9-2	A	A	A		NA	
FRS010	TG9-2a	A	A	A		NA	
FRS010	TG9-2b	A	A	NA	HHT is NA	NA	
FRS010	TG9-2c	A	A	A		NA	
FRS010	TG10-1	A	A	A		NA	
FRS010	TG11-1	A	A	A		NA	
FRS010	TG12-1	A	A	A		NA	
FRS010	TG12-2	A	A	A		NA	
FRS010	TG12-3	A	A	A	Applicable if optical signals are used.	NA	
FRS010	TG13-1	A	A	A		NA	
FRS010	TG14-1	A	A	A		NA	
FRS010	TG16-1	A	A	A		NA	



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FRS010	TG17-1	A	A	A		NA	
FRS010	TG18-1	A	A	A		NA	
FRS010	TG21-1	A	A	A		NA	
FRS010	TG22-1	A	A	A		NA	
FRS010	TG23-1	A	A	A		NA	
FRS010	TG24-1	A	A	A		NA	
FRS010	TG24-2	A	A	A		NA	
FRS010	TG25-1	A	Ai	A	Optical signals may not be used in ERTMS application	NA	
FRS010	TG25-2	A	Ai	A	Optical signals may not be used in ERTMS application	NA	
FRS011	ISSB-DK1- 1	Ai	Ai	Ai		Ai	
FRS011	ISSB-DK1- 3	Ai	Ai	Ai		Ai	
FRS011	ISSB-DK1- 4	Ai	Ai	Ai		Ai	
FRS011	ISSB-DK1- 5	Ai	Ai	Ai		Ai	
FRS011	ISSB-DK1- 6	Ai	Ai	Ai		Ai	
FRS011	ISSB-DK1- 7	Ai	Ai	Ai		Ai	
FRS011	ISSB-DK1- 8	NAi	Ai	NAi	Requirements for the signaling system borders are described in E1.	NAi	
FRS011	ISSB-DK1- 9	Ai	Ai	Ai		Ai	
FRS011	ISSB-DK1-10	Ai	Ai	Ai		Ai	
FRS011	ISSB-DK1-11	Ai	Ai	Ai		NAi	
FRS011	ISSB1-1	A	A	A		A	
FRS011	ISSB1-1a	A	A	A		A	
FRS011	ISSB1-1b	A	A	A		A	

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FRS011	ISSB1-1c	A	A	A	Additional requirement: A request in the conventional signalling system to set a train route to the border shall first lead to that a trainroute is locked from the border to the first MB in the ERTMS system before permission is given to the conventional signalling system to lock a trainroute to the border.	NA	Interface to ERTMS system is NA
FRS011	ISSB1-1d	A	A	A	Additional requirement: A request in the ERTMS system to set a train route to the border shall require permission received from the conventional signalling system before the route is locked in the ERTMS system.	NA	Interface to ERTMS system is NA
FRS011	ISSB1-2	A	A	A		A	
FRS011	ISSB1-3	A	A	A		A	
FRS011	ISSB2-1	A	A	A		A	
FRS011	ISSB2-3	A	A	A		A	
FRS011	ISSB3-1	A	A	A		A	
FRS011	ISSB4-1	A	A	A		A	
FRS011	ISSB4-2	A	A	A		A	
FRS011	ISSB5-1	A	A	A	Routes across the system border shall be manually released separately in both signalling systems.	A	
FRS011	ISSB5-2	A	A	A		A	
FRS011	ISSB6-1	A	A	A		A	
FRS011	ISSB6-2	A	A	A		A	
FRS011	ISSB6-3	A	A	A		A	
FRS011	ISSB6-4	A	A	A		A	
FRS011	ISSB7-2	A	A	A		A	
FRS011	ISSB7-3	A	A	A		A	

WO Sandnes Stavanger  
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 Applicable Requirements SGRS  
 Functional Requirements Specification (FRS)

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Document	ID	Status Conv	Status ERTMS	Status	Comments	Status	Comments
FRS011	ISSB8-1	A	A	A		A	
FRS011	ISSB9-1	A	A	A		A	
FRS011	ISSB9-1a	A	A	A		A	
FRS011	ISSB9-1b	A	A	A		A	
FRS011	ISSB9-1c	A	A	A		A	
FRS011	ISSB9-1d	A	NA	A		A	
FRS011	ISSB9-1e	A	A	A		A	
FRS011	ISSB9-2	A	A	A		A	

REFERENCE LIST

Ref to following References in document

“Signalling System Generic Requirements Specification (SGRS) introduction and overall principles”

Doc nr: ERT-00-S-00015

[2] FRS001 Commands and statuses, ERT-0-S-00016, rev 03E

[3] FRS002 Train Movement Areas, ERT-0-S-00017, rev 03E

[4] FRS003 Single objects, ERT-0-S-00018, rev 03E

[5] FRS004 ERTMS Functions, ERT-0-S-00019, rev 03E

[6] FRS005 Line side signalling, ERT-0-S-00020, rev 03E

[7] FRS006 Automatic Train Protection, ERT-0-S-00045, rev 03E

[8] FRS007 Working Area, ERT-0-S-00046, rev 03E

[17] FRS008 Level Crossing, ERT-0-S-00068, rev 03E

[18] FRS009 Avalanche detection, ERT-00-S-00069, rev 03E

[19] FRS010 Tunnel gates, ERT-00-S-00070, rev 03E

[22] FRS011 Interface of signalling systems border, ERT-0-S-00071, rev 03E

[23] SGRS Change History, ERT-00-S-00066, rev 03E