



## **Function RSL200\_Switchover**

**Leuze**

**Function description**  
**Function:**  
**RSL200\_Switchover**

Datum: 10.01.2026  
Version: 1.0

FC integration instructions  
English



© 2026  
Leuze electronic GmbH + Co. KG  
In der Braike 1  
73277 Owen / Germany  
Phone: +49 7021 573-0  
Fax: +49 7021 573-199  
[www.leuze.com](http://www.leuze.com)  
[info@leuze.com](mailto:info@leuze.com)





## Content

1	About this document.....	4
1.1	Change history.....	4
2	Function description .....	5
2.1	Use requirements.....	5
2.2	Function Inputs .....	5
2.3	Function Outputs.....	5
3	Examples of use.....	6
3.1	Both input values 0 .....	6
3.2	NumUsedControlInputs out of range .....	6
3.3	ReqFieldTriplet out of range.....	7
3.4	Used 4 control inputs, selected field F6.....	8
3.5	Used 6 control inputs, selected field F31.....	9
3.6	Pin assignment for control.....	10






## 1 About this document

This project document does not replace the related operating instructions. Ensure to follow the operating instructions and safety instructions to ensure proper installation and operation of the system.

Please contact the machine manufacturer, the system integrator or your Leuze contact person if required.

Qualified personnel in compliance with the regulations contained in the operating instructions and the applicable standards and directives only permit installation and commissioning of the system.

NOTICE	
	<ul style="list-style-type: none"><li>• Leuze supplies only the function block that will be implemented in the customer's control system</li><li>• Please read original operating instruction of an current RSL200</li></ul>

### 1.1 Change history

Version	Date	Author	Change	Chapter
1.0	December 2025	M. Bugoš	Creation	All





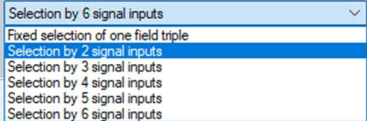
## 2 Function description

Software function block was designed to generate output signals for RSL200 Control Inputs E1-E6 according to actual setup and requested field triplet (F1-F32).

### 2.1 Use requirements

- Siemens PLCs S7-1200F and S7-1500F from Tia V17.
- Knowledge of RSL200 configuration and connection. (See Operating instructions RSL2xx, according to current type of RSL200.)
- Field must not be changed more than once within 25ms.

### 2.2 Function Inputs

Name	Type	Comment
NumUsedControlInputs	Int	Number of used control (signal) inputs (E1-E6) min. 2, max. 6  <b>FIELD CONFIGURATIONS</b>  MODE FOR FIELD TRIPLE ACTIVATION AND CHANGEOVER  Field triple activation Changeover time 
ReqFieldTriplet	Int	Number of requested field triplet – min. 1, Max. for used number of control inputs: E1-E2 → max. 2 E1-E3 → max. 4 E1-E4 → max. 8 E1-E5 → max. 10 E1-E6 → max. 32  For further details see Operating instructions RSL220 (Tab. 4.4-4.6) or RSL230 (Tab. 4.4-4.8)

### 2.3 Function Outputs

Name	Type	Comment
ControlInput_E1	Bool	RSL200 control input E1 (EA1)
ControlInput_E2	Bool	RSL200 control input E2 (EA2)
ControlInput_E3	Bool	RSL200 control input E3 (EA3)
ControlInput_E4	Bool	RSL200 control input E4 (EA4)
ControlInput_E5	Bool	RSL200 control input E5 (EA5)
ControlInput_E6	Bool	RSL200 control input E6 (EA6)
Error_NumUsedCI	Bool	Error number of used control inputs is out of range
Error_ReqField	Bool	Error requested field triplet is out of range





## 3 Examples of use

### 3.1 Both input values 0

PLC start-up

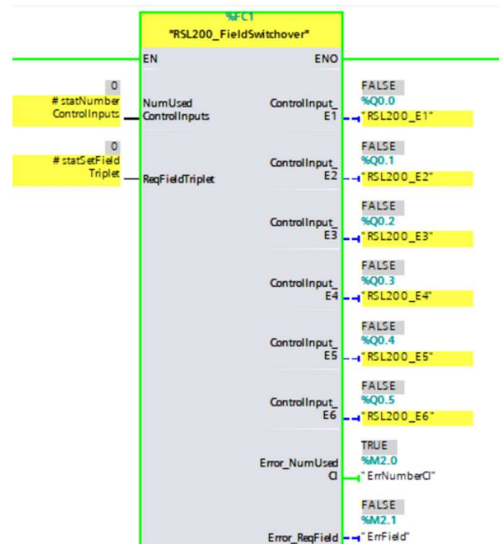


Fig. 3.1: Software function block: Both input values 0

In case of active fault all `ControlInputs_E1-E6` are set to false. (RSL generates error code U0584.)

### 3.2 NumUsedControlInputs out of range



Fig. 3.2: Software function block: NumUsedControlInputs out of range





### 3.3 ReqFieldTriplet out of range

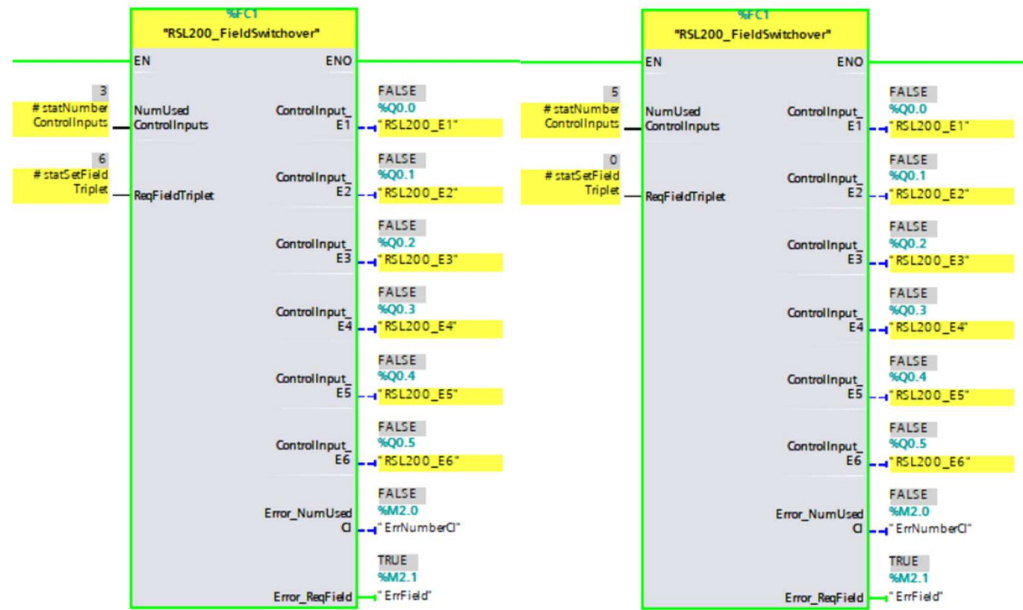


Fig. 3.3: Software function block: ReqFieldTriplet out of range





### 3.4 Used 4 control inputs, selected field F6



Fig. 3.5: Sensor studio: Selected by 4 signal inputs

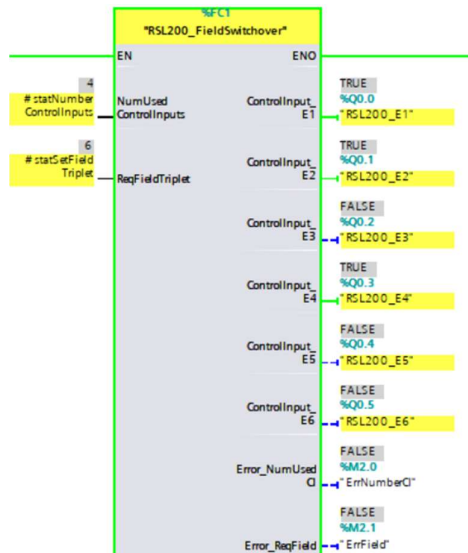


Fig. 3.5: Software function block: Used 4 control inputs, selected field F6

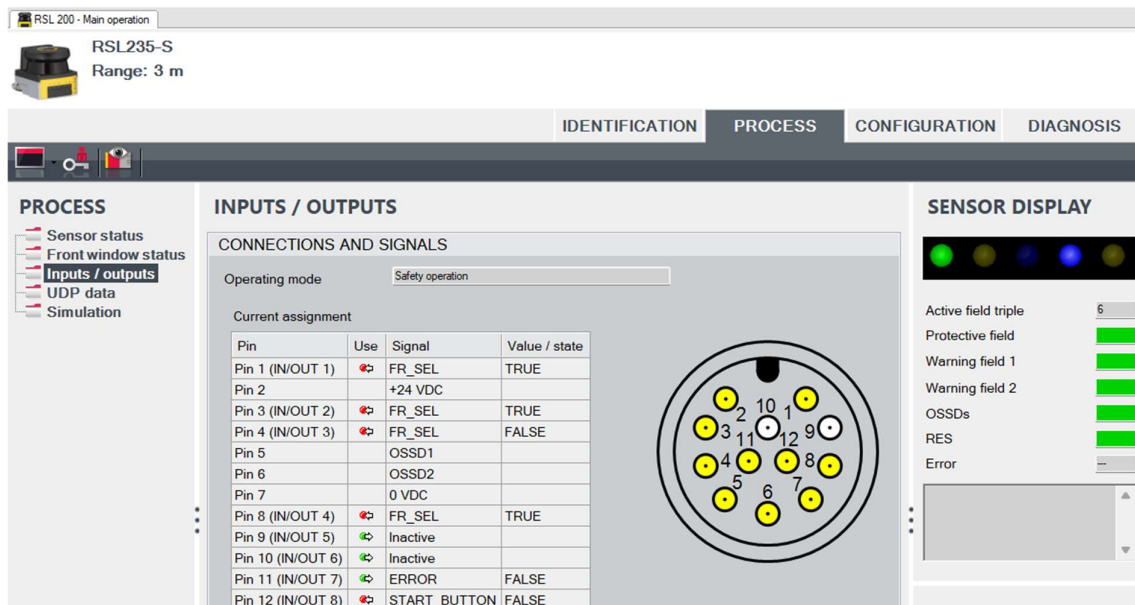


Fig. 3.6: Sensor studio: Connections and signals







### 3.5 Used 6 control inputs, selected field F31

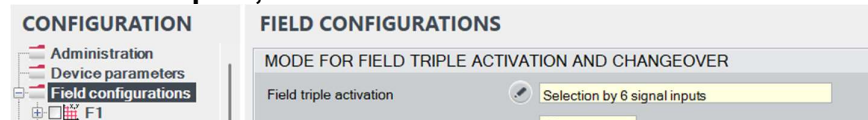


Fig. 3.7: Sensor studio: Selection by 6 signal inputs

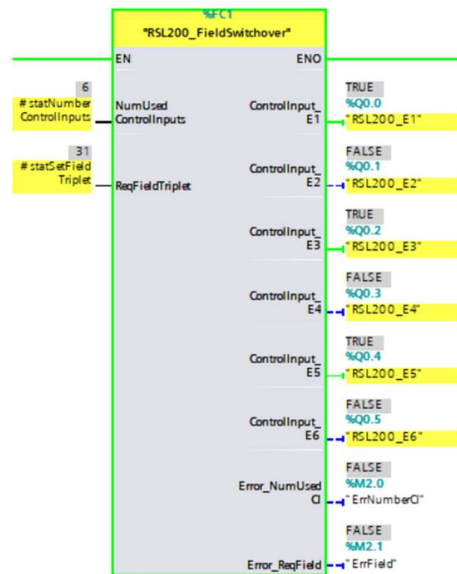


Fig. 3.8: Software function block: Used 6 control inputs, selected field F31

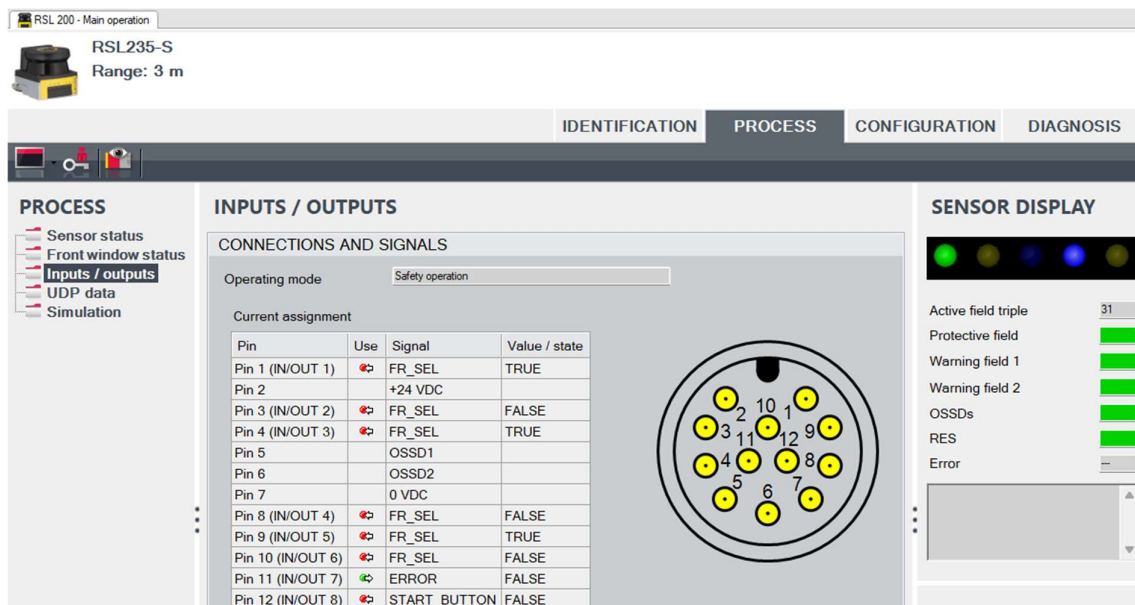


Fig. 3.7: Sensor studio: Connections and signals





### 3.6 Pin assignment for control

Pin	Signal	Function
1	EA1	<ul style="list-style-type: none"><li>Function input for field triple changeover</li><li>Alternatively: State signaling (configurable)</li></ul>
2	+24 VDC	Supply voltage
3	EA2	<ul style="list-style-type: none"><li>Function input for field triple changeover</li><li>Alternatively: State signaling (configurable)</li></ul>
4	EA3	<ul style="list-style-type: none"><li>Function input for field triple changeover</li><li>Alternatively: State signaling (configurable)</li></ul>
5	OSSD 1	Safety-related switching output
6	OSSD 2	Safety-related switching output
7	0 VDC	Supply voltage ground
8	EA4	<ul style="list-style-type: none"><li>Function input for field triple changeover</li><li>Alternatively: State signaling (configurable)</li></ul>
9	EA5	<ul style="list-style-type: none"><li>Function input for field triple changeover</li><li>Alternatively: State signaling (configurable)</li></ul>
10	EA6	<ul style="list-style-type: none"><li>Function input for field triple changeover</li><li>Alternatively: State signaling (configurable)</li></ul>
11	A7	Contactormonitoring State signaling (configurable)
12	A8 / RES	<ul style="list-style-type: none"><li>Start/restart input</li><li>Acknowledgment</li><li>Alternatively: State signaling (configurable)</li></ul>
Thread	FE	Functional earth/shield

Fig. 3.8: Operating instructions RSL235: Pin assignment

