

Coupler 000132

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Use of the application program

Product family: System components
 Product type: Line coupler
 Manufacturer: Siemens

Name: Line / Backbone coupler N 140/03
 and N 140/13
 Order no.: SWG1 140-1AB03 resp.
 SWG1 140-1AB13

1. Functional description

This application program "Coupler 000132" has to be downloaded with the ETS up from version ETS4 if a line / backbone coupler N 140/03 or N 140/13 is used as a line coupler, a backbone coupler or a repeater.

Please note: before programming a new coupler N 140/03 or N 140/13 the file "N140_x3_000132.knxprod" has to be loaded into the ETS4 or ETS5 data base.

If a line / backbone coupler N 140/03 or N 140/13 shall be used as a line/backbone coupler the device address "0" has to be entered (e.g. 1.1.0). If another device address (1...255) is entered the device operates as repeater.

The line/backbone coupler can be set to reject all individually addressed telegrams on the main line or sub line. Thus devices connected to the main line respectively sub line can be protected against undesired changes of their configuration.

Note:

When the parameter "Acknowledge individually addressed telegrams" is set to "always reject" for the line or

main line then the line coupler itself cannot be configured from the line respectively main line.

When individually addressed telegrams are rejected on the line then the line coupler can only be configured from the main line.

When individually addressed telegrams are rejected on the main line then the line coupler can only be configured from the line.

2. Communication objects

The application program has no communication objects. The application program already has been loaded in the factory.

The device is configured and commissioned with Engineering Tool Software (ETS) version ETS4 or higher. With the ETS (Engineering Tool Software) the specific parameters are assigned appropriately, and downloaded into the device.

3. Parameters

Note

The settings printed in **bold** correspond to the factory settings (default values).

General

Parameter	Settings
Support of not configured interfaces (=Interface address doesn't match with line address)	disabled enabled
This parameter enables support for e.g. interfaces with topologically false individual address, such that these interfaces can be flexibly used in several lines without having to adapt the individual address each time.	

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Routing (main line > sub line)

Parameters	Settings
Group telegrams of main groups 0 to 13	forward all (for testing only !) block filter (normal)
<p>A line coupler receives telegrams via its main line interface and transmits these telegrams via its line interface. For telegrams with group addressing it can be selected if these telegrams should be let through or be blocked completely or be filtered according to the filter table. When the parameter setting "filter (normal)" is selected the filter table automatically generated by ETS is downloaded into the device.</p> <p><i>Note:</i> When operating the device as line/backbone coupler then the setting „forward all“ is provided for testing purposes only. When operating the device as repeater then the parameter must be set to "forward all".</p>	
Group telegrams of main groups 14 to 31	forward all (for testing only !) block filter (normal)
<p>A line coupler receives telegrams via its main line interface and transmits these telegrams via its line interface. For telegrams with group addressing it can be selected if these telegrams should be let through or be blocked completely or be filtered according to the filter table. When the parameter setting "filter (normal)" is selected the filter table automatically generated by ETS is downloaded into the device.</p> <p><i>Note:</i> When operating the device as line/backbone coupler then the setting „forward all“ is provided for testing purposes only. When operating the device as repeater then the parameter must be set to "forward all".</p>	
Confirm group oriented telegrams	always only if routed
<p>If this parameter is set to „always“ group telegrams are confirmed by the line / backbone coupler on the main line even if they are not forwarded onto the sub line.</p>	

Parameters	Settings
Individually addressed telegrams	block filter (depending on target and coupler address)
<p>This parameter defines the filter function for individually addressed telegrams. If the default „filter“ setting is selected the telegrams are filtered based on the individual address of the line / backbone coupler. Note: The setting „forward all“ is provided for testing purposes only.</p>	
Acknowledge individually addressed telegrams	always (send ACK) always reject (send NACK) only if routed
<p>If the parameter is set to "always (ACK)" then individually addressed telegrams are acknowledged by the line / backbone coupler on the main line even if these are not forwarded onto the line. If the parameter is set to "always reject (send NACK)" then individually addressed telegrams are rejected by the line / backbone coupler on the main line. Thus devices connected to the line can be protected against undesired changes of their configuration. Note: The setting „always reject (send NACK)“ is only available, if under „Routing (sub line > main line)“ the parameter "Acknowledge individually addressed telegrams" is not set to „always reject (send NACK)“.</p>	
Broadcast telegrams	route block
<p>This parameter defines the filter function for broadcast telegrams. Broadcast telegrams are always forwarded unless this parameter is set to "block". Independent of this parameter broadcast telegrams are always accepted by the line / backbone coupler itself.</p>	

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Repetitions of telegrams on main line

Parameter	Settings
Repeat group oriented telegrams in case of no ACK	no yes
If the parameter is set to „yes“ then group oriented telegrams are repeated up to three times if group oriented telegrams sent onto the main line are not acknowledged.	
Repeat individually addressed telegrams in case of transmission faults	no yes
If the parameter is set to „yes“ then individually addressed telegrams are repeated up to three times if a transmission fault occurs on the main line.	
Repeat broadcast telegrams in case of transmission faults	no yes
If the parameter is set to „yes“ then broadcast telegrams are repeated up to three times if a transmission fault occurs on the main line.	

Routing (sub line > main line)

Parameters	Settings
Group telegrams of main groups 0 to 13	block filter (normal)
A line coupler receives telegrams via its line interface and transmits these telegrams via its main line interface. For telegrams with group addressing it can be selected if these telegrams should be let through or be blocked completely or be filtered according to the filter table. When the parameter setting „filter (normal)“ is selected the filter table automatically generated by ETS is downloaded into the device. <i>Note:</i> <i>When operating the device as line/backbone coupler then the setting „forward all“ is provided for testing purposes only.</i> <i>When operating the device as repeater then the parameter must be set to „forward all“.</i>	

Group telegrams of main groups 14 to 31	forward all (for testing only !) block filter (normal)
A line coupler receives telegrams via its line interface and transmits these telegrams via its main line interface. For telegrams with group addressing it can be selected if these telegrams should be let through or be blocked completely or be filtered according to the filter table. When the parameter setting „filter (normal)“ is selected the filter table automatically generated by ETS is downloaded into the device. <i>Note:</i> <i>When operating the device as line/backbone coupler then the setting „forward all“ is provided for testing purposes only.</i> <i>When operating the device as repeater then the parameter must be set to „forward all“.</i>	
Confirm group oriented telegrams	always only if routed
If this parameter is set to „always“ group telegrams are confirmed by the line / backbone coupler on the sub line even if they are not forwarded onto the main line.	
Individually addressed telegrams	block filter (depending on target and coupler address)
This parameter defines the filter function for individually addressed telegrams. If the default „filter (normal)“ setting is selected the telegrams are filtered based on the individual address of the line / backbone coupler.	
Acknowledge individually addressed telegrams	always (send ACK) always reject (send NACK) only if routed
If the parameter is set to „always (ACK)“ then individually addressed telegrams are acknowledged by the line / backbone coupler on the sub line even if these are not forwarded onto the main line. If the parameter is set to „always reject (send NACK)“ then individually addressed telegrams are rejected by the line / backbone coupler on the sub line. Thus devices connected to the main line can be protected against undesired changes of their configuration. <i>Note: The setting „always reject (send NACK)“ is only available, if under „Routing (main line > sub line)“ the parameter „Acknowledge individually addressed telegrams“ is not set to „always reject (send NACK)“.</i>	

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Broadcast telegrams	route block
<p>This parameter defines the filter function for broadcast telegrams.</p> <p>Broadcast telegrams are always forwarded unless this parameter is set to "block".</p> <p>Independent of this parameter broadcast telegrams are always accepted by the line / backbone coupler itself.</p>	

Repetitions of telegrams on sub line

Parameter	Settings
Repeat group oriented telegrams in case of no ACK	no yes
<p>If the parameter is set to „yes“ then group oriented telegrams are repeated up to three times if group oriented telegrams sent onto the sub line are not acknowledged.</p>	
Repeat individually addressed telegrams in case of transmission faults	no yes
<p>If the parameter is set to „yes“ then individually addressed telegrams are repeated up to three times if a transmission fault occurs on the sub line.</p>	
Repeat broadcast telegrams in case of transmission faults	no yes
<p>If the parameter is set to „yes“ then broadcast telegrams are repeated up to three times if a transmission fault occurs on the sub line.</p>	