

ANSI 85 communication function

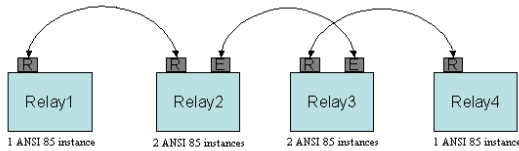
Introduction

ANSI 85 communication function enables VAMP relays to transfer binary signals between two or more relays over serial communication.

Overview

Each relay allows for two instances of the ANSI 85 function, which means that it may operate on up to two communication ports at the same time.

A typical system is built of several relays with one or both instances of ANSI 85 enabled.



Each relay may assign binary signals to the POC signals defined in ANSI 85 function. The total number of POC signals in the system is 16.

Each of 16 POC signals should be used in the system by one relay only, otherwise collisions will be indicated.

Selecting ANSI 85 on protocol port

ANSI 85 can be selected (in PROTOCOL CONFIGURATION tab in Vampset) on two out of three available serial communication protocol ports: Remote, Extension and Local (typically Remote and Extension are used).

REMOTE PORT	
Remote port protocol	None
-	38400/8N1
Message counter	0
Error counter	0
Timeout counter	0

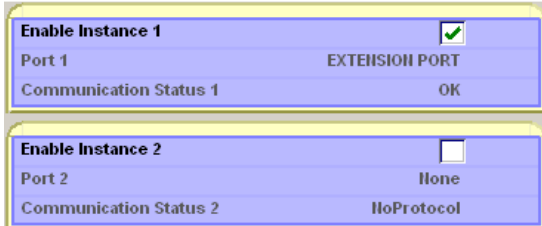
LOCAL PORT	
Local port protocol	None
-	38400/8N1
Message counter	0
Error counter	0
Timeout counter	0

EXTENSION PORT	
Extension port protocol	ANSI85
-	38400/8E1
Message counter	4864
Error counter	0
Timeout counter	28359

Once the protocol is selected on at least one port, a new tab called ANSI 85 will appear in Vampset.

Enabling ANSI 85 function

There are two instances of ANSI 85 function available.



In ANSI 85 tab the parameters Enable Instance 1 and Enable Instance 2 are used to enable ANSI 85 on respectively port 1 and port 2. The actual ports are assigned to port 1 and port 2 based on the port priority defined for ANSI 85 (Remote port has the highest priority and Local port has the lowest). Parameters Port 1 and Port 2 show port assignments.

For each port, communication statuses are displayed:

- NoProtocol – ANSI 85 is not selected on the protocol port (if ANSI 85 is selected on only one port, Communication Status 2 will always show NoProtocol),
- Disabled – ANSI 85 is selected on the protocol port, but its instance is not enabled,
- LinkFailed – there is no proper communication with another relay on the selected port,
- OK – there is a proper communication with another relay on the selected port.

Assigning POC signals

In ANSI 85 tab in Vampset there are 16 POC signals available. These are common for both instances of ANSI 85 and common for all connected relays.

POC SIGNALS			
Index	Description	Signal	Value
1	None	None	0
2	None	None	0
3	None	None	0
4	None	None	0
5	None	None	0
6	None	None	0
7	None	None	0
8	None	None	0
9	None	None	0
10	None	None	0
11	None	None	0
12	None	None	0
13	None	None	0
14	None	None	0
15	None	None	0
16	None	None	0

Description of each POC can be changed to a user defined string (no more than 26 characters).

Index	Description	Signal
1	None	None
2	User defined string	None
3	None	None

To each of the POC signals a binary signal can be assigned from the selection list.

Index	Description	Signal
1	Digital input 3	DI3
2	None	None

Each relay sends its own values for assigned POC signals and, if two ANSI 85 instances are enabled, forwards the values received on one port to another port.

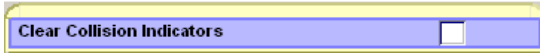
Collisions

Each of the POC signals should be assigned only once in the system. When the relay discovers that the POC signal it is using is also used by another relay, it indicates a collision.

Signal	Value	On Event	Off Event	Status
DI3	0	On	On	Collision
None	0	On	On	ok

In case of collision, the relay discards the value received on POC signal (it is ignored by the relay and is not forwarded). On the other hand, the relay will always send its own value of POC signal, where a collision has been noticed.

If a collision is indicated, the user should change the signal assignment and use Clear Collision Indicators parameter to clear the latched collision status.



Matrix signals

Each of the POC signals is available on all of the VAMP relay matrices.

POC1							
POC2							
POC3							
POC4							
POC5							
POC6							
POC7							
POC8							
POC9							
POC10							
POC11							
POC12							
POC13							
POC14							
POC15							
POC16							

Index	Description	Signal	Value
1	Digital input 3	DI3	0
2	None	None	1

Events

By default On and Off events are generated for each POC signal. This can be changed on the ANSI 85 tab in Vampset.

Signal	Value	On Event	Off Event
DI3	0	On	On
None	1	On	On

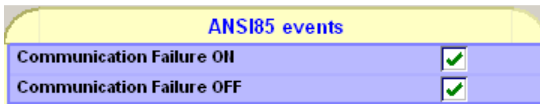
109E03 POC2 on

Additionally, there are events indicating ANSI 85 communication error on and off.

109E33 ANSI85 Communication Error On

109E34 ANSI85 Communication Error Off

These events can be disabled on the EVENT MASKS for ANSI85 link tab in Vampset.



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Publishing: 4/2013

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