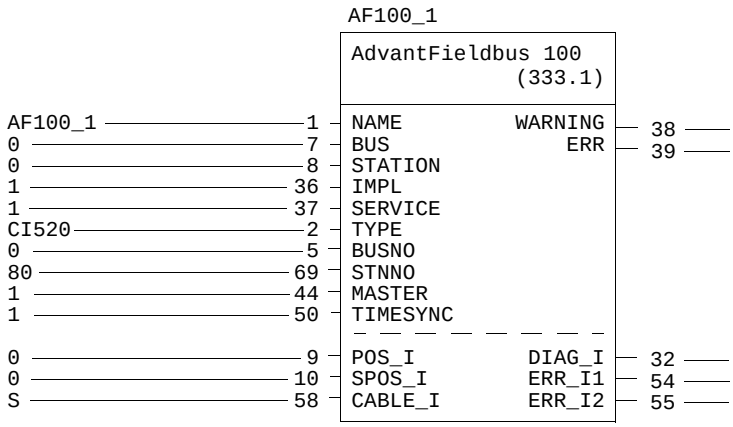
Advant Fieldbus 100 CI520

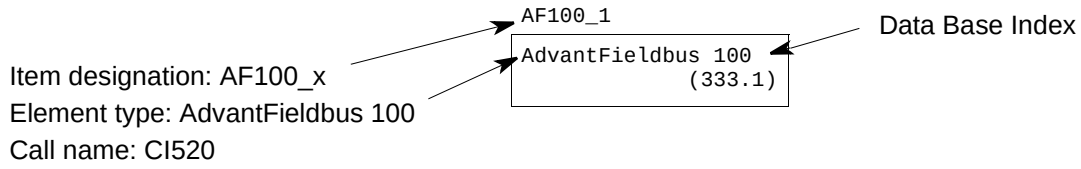
Summary

The Advant Fieldbus 100 data base element specifies an Advant Fieldbus 100 connected to an Advant Controller 400 Series. The data base element contains diagnostic information of both the fieldbus (Advant Fieldbus 100) and the CI520 communication module itself.

Overview



Head



Terminal Description

Terminal No	Terminal Name	Value entered by	Default value	PC connection data type	Description	Remarks
1	NAME	user	AF100_x	–	Unique **NAME** of the bus.	Max. 20 characters.
7	BUS	predef	0	–	**BUS**. Part of Address.	See section “Address Terminals BUS, STATION, POSITION and SUBPOS” in the Introduction.

Terminal Description (Continued)

Terminal No	Terminal Name	Value entered by	Default value	PC connection data type	Description	Remarks
8	STATION	predef	0	–	**STATION**. Part of Address.	–
36	IMPL	user	1	B(r)	0=the module is spare 1=the module is **IMPL**emented	–
37	SERVICE	user	1	B(r/w)	The in-**SERVICE** terminal shows whether the module is in service or has been taken out of service.	–
2	TYPE	predef	CI520	–	**TYPE** designation of hardware module.	–
5	BUSNO	user	0	–	Unique **BUS N**umber for this fieldbus: 1 - 255.	Cannot be changed when system is in op. mode. 0 not allowed for an active bus.
69	STNNO	user	80	–	**ST**atio**N N**umber representing the Controller on the fieldbus: 1 - 80.	Cannot be changed when IMPL=1 in op. mode. 0 not allowed for an active station.
44	MASTER	user	1	–	Communication interface in 0=SLAVE mode 1=**MASTER** mode	–
50	TIMESYNC	user	1	–	Send **TIME SYNC**hronization messages.	–
9	POS_I	user	0	–	**POS_I**. Part of Address.	See section “Address Terminals BUS, STATION, POSITION and SUBPOS” in the Introduction.
10	SPOS_I	user	0	–	**SPOS_I**. Part of Address.	
58	CABLE_I	user	S	–	**CABLE** connection: S=single, R=redundant	–
38	WARNING	system	–	B(r)	**WARNING** flag indicating non-fatal errors.	–
39	ERR	system	–	B(r)	**ERR**or flag indicating hardware or configuration error.	–
32	DIAG_I	system	–	–	CI520 module **DIAG**nostics.	–
54	ERR_I1	system	–	B(r)	**ERR**or indication for bus cables.	–
55	ERR_I2	system	–	B(r)		

Function

The Advant Fieldbus 100 data base element specifies an Advant Fieldbus 100 connected to an Advant Controller 400 Series. The data base element contains diagnostic information of both the fieldbus (Advant Fieldbus 100) and the CI520 communication module itself.

The Advant Fieldbus 100 data base element can be created in the system but can not be removed. It is however possible to disable the function of the element by setting the IMPL terminal to 0. The data base element can also be reconfigured to specify a different Advant Fieldbus 100 bus if one fieldbus is removed and another is inserted in the system.

Module Set-up Procedure

With the data base element you set up the communication module for the process communication program.

The communication module set-up procedure includes:

1. Implementation
2. Disabling
3. Parameters
4. Diagnostics.

1. Implementation

The Advant Fieldbus 100 data base communication module is configured with its parameters and started at system INIT if IMPL is set to 1. Setting IMPL to 1 in a running system means that the CI520 communication module is configured with its parameters and started. Connection to the stations on Advant Fieldbus 100 is established. Setting IMPL to 0 in a system in operational mode means that the CI520 communication module is shut down and the connection to the stations is lost.

2. Disabling

The SERVICE terminal has similar functionality as the IMPL terminal, except that it is meant to be used for temporary disabling and repairs. Reconfiguration of terminals such as POS_I and SPOS_I in a system in operational mode is thereby not allowed.

3. Parameters

The BUSNO terminal specifies a unique bus number for this specific Advant Fieldbus 100, to be used in other data base elements to specify when communicating via or if they are connected to this specific Advant Fieldbus 100. Please note that BUSNO **can not be changed** when the system is in operational mode.

The STNNO terminal specifies a unique station number for the Advant Controller 400 Series to be used on this Advant Fieldbus 100. Station number 80 is the default value and is valid as long as only one Advant Controller 400 Series exist on this bus. Only one Advant Controller 400 Series can have station number 80, the others have to change the station number. It is possible although not recommended to use different STNNO in different Advant Fieldbus 100 data base elements within one Advant Controller 400 Series.

Terminal MASTER specifies if the CI520 communication module shall be Master or Slave on the Advant Fieldbus 100. A CI520 communication module is normally a Master on the bus, and it is also the default value.

Terminal TIMESYNC specifies if the CI520 communication module shall send time synchronization messages on Advant Fieldbus 100. In most configurations this terminal shall be set to 1, and it is the default value. Please note that only one station can be responsible for sending time synchronization messages on Advant Fieldbus 100.

The CI520 communication module can be connected to single or redundant media (one or two cables). The terminal CABLE_I specifies if single or redundant media is installed for the Advant Fieldbus 100. The default is single media.

4. Diagnostics

The Advant Fieldbus 100 data base element indicates diagnostics for both the CI520 communication module and Advant Fieldbus 100. The ERR terminal indicates fatal errors and the WARNING terminal indicates non-fatal errors. The DIAG terminal specifies a more detailed description of what causes the error or warning indication. One or more diagnostics indicators may be set. A few typical errors are listed in the following table.

Advant Fieldbus 100 data base element diagnostic information

Condition	WARNING	ERR	ERR_I1	ERR_I2	DIAG_I	Action
Missing or faulty CI520	–	1	–	–	IE	Insert CI520
Redundant cable 1 bad	1	–	1	0	PE	Replace media (cable 1)
Redundant cable 2 bad	1	–	0	1	PE	Replace media (cable 2)