V68x 003	Noise measurement _V68x003_MeasureNoise

Basic function	ID tag and the amplifier noise measurement conducted between.
Symbol	
File name	Lib¥FBL¥omronlib¥RFID¥V680¥_V68x003_MeasureNoise10.cxf
Applicable models	ID Sensor Units	CS1W-V680C11/V680C12 and CJ1W-V680C11/V680C12
	CPU Unit	CS1*-CPU**H　Unit version 3.0 or higher CJ1*-CPU**H　Unit version 3.0 or higher CJ1M-CPU**　Unit version 3.0 or higher CP1H
	CX-Programmer	Version 5.0 or higher
Language used	Ladder Language
Function description	「Unit No.」・「antenna No」 specified in the lead for antenna Sensor ID unit between the antenna lead and noise measurement. Observed data is specified channel from the three channels, respectively, and the average value of the maximum and minimum values are stored.
Kind of FB definition	more-cycle execution type 　After it starts, this FB is processed across two or more cycles. 　Because the state is maintained internally, the same instance cannot be used in two or more places at the same time.
FB precautions	・The FB is processed over multiple cycles. The BUSY output variable can be used to check whether the FB is being processed. ・OK or NG will be turned ON for one cycle only after processing is completed. Use these flags to detect the end of FB processing. ■Time chart ・This FB cannot be executed if the ID Sensor Unit is busy. The NG Flag will turn ON if an attempt is made. ・When FB is executed if result monitor output of the system construction is set to the setting of the noise level, the noise level is output to the error code. ・The word designation for storing the data is specified using the area type and beginning word address. For example, for D1000, the area type is set to P_DM and the beginning word address is set to &1000.
EN input condition	Connect EN to an OR between an upwardly differentiated condition for the start trigger and the BUSY output from the FB.

Restrictions Input variables	・Always use an upwardly differentiated condition for EN. ・If the input variables are out of range, the ENO flag will turn OFF and the FB will not be processed. ・Always specify a antenna number of &1 for One-antenna ID Sensor Units (CS1W-V680C11 and CJ1W-V680C11). ・If the antenna type V680-H01 would unusable. ・Given channel measurement results from the 3 channels will have to be stored for FB from outside, please do not write.
Output variables	・This FB requires multiple cycles to process. Always connect an OR including the BUSY output variable to the EN input variable to ensure that the FB is processed to completion (see *Symbol*). ・Do not turn the BUSY output variable ON or OFF outside the FB.
Application example	When bit A turns ON in the following example, the unit number three Sensor Unit antenna 1 and lead antenna noise measurement results between the value of D1000 after 3 channel stored. ・Noise Store Results 　D1000：Noise level Average value 　D1001：Noise level maximum value 　D1002：Noise level Minimum value
Related manuals	ID Sensor Unit Operation Manual (SCHI-711) 　4 I/O Data Allocations, Error Codes 　6 Communications Commands, Noise Measurement

Application example diagram:

#3 Unit No.:「3」

| Power | CPU | V680 |

Antenna No.:「1」

Antenna — ID Tag

Bit A ↑

Bit B

```
                    _V68x003_MeasureNoise
         (BOOL)                         (BOOL)
         EN                             ENO
Unit No. (INT)                          (BOOL)      Busy Flag
&3       UnitNo                         BUSY        Bit B

Antenna No. (INT)                       (BOOL)      Normal end
&1       AntennaNo                      OK          Bit C

Write data storage area type  (WORD)    (BOOL)      Error end
P_DM     DataAreaID                     NG          Bit D

Write data storage word address (INT)   (WORD)      Error code
&1000    DataAreaNo                     ErrorCode
```

■Variable Tables
Input Variables

Name	Variable name	Data type	Default	Range	Description
EN	EN	BOOL			ON is executed when FB has been turned on. 1 (ON): FB started. 0 (OFF): FB not started.
Unit No.	UnitNo	INT	&0(OFF)	&0～&95	Specify the unit number.
Antenna No.	AntennaNo	INT	&1	&1～&2	Specify the antenna number. &1: Antenna 1 &2: Antenna 2 (Two-antenna Controllers only)
Write data storage area type	DataAreaID	WORD	#00B0	At right.	Specify the write data storage area type. P_CIO (#00B0): CIO Area P_WR (#00B1): Work Area P_HR (#00B2): Holding Area P_DM (#0082): DM Area P_EM0 (#0050) to P_EMC (#005C): EM Area bank 0 to C
Write data storage word address	DataAreaNo	INT	&0		Specify the write data storage word address.

Output Variables

Name	Variable name	Data type	Default	Description
ENO (May be omitted.)	ENO	BOOL		1 (ON): FB processed normally. 0 (OFF): FB not processed or ended in an error.
Busy Flag	BUSY	BOOL		Automatically turns OFF when processing is completed.
Normal end	OK	BOOL		Turns ON for one cycle when processing ends normally.
Error end	NG	BOOL		Turns ON for one cycle when processing ends in an error.
Error code	ErrorCode	WORD		Outputs the results from the ID Sensor Unit. Refer to the *Related Manuals* for details. 　#0014: Data storage area Specification error ＊ 　#0014: Command error ＊ 　#0070: ID Tag communications error 　#0071: Verification error 　#0072: ID Tag missing error 　#0076: Status Flag 　#0077: Error correction 　#0079: ID system error 1 　#007A: ID Tag address error 　#007C: Antenna error flag 　#007D: Write protection error 　#007E: ID system error 2 　#007F: ID system error 3 　#FFFE: ID Tag is communicating. 　#FFFF: Input parameter error ＊:#0014 has two item factor. Please confirm, and divide the corresponding flag about details.「Related manuals SCHI-711 7　Abnormal processing 」

■Version History

Version	Date	Contents
1.00	2008.04.	Original production