WAGO-I/O-*PRO* 32 Library

AS_Interface_01.lib

This library ?AS_Interface_01.lib? may be used to communicate with the module 750-655 by using the mailbox functionality.

Contents

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Contents

AS_Interface_01.lib

Reading data from an analog slave 7.3

WAGO-I/O-*SYSTEM*			
Category:			
Name:	AS_InterfaceAnalogInput		
Type:	Function	Function block X	Program
Library name:	AS_Interface_01.lib		
Usable for:	750-806 ,750-833 ,750-837 ,750-842 ,750-841, 758-870		
Input parameters:	**Data type:**	**Comments:**	
bAnalogSlaveAddress	BYTE	Address of analog slave	
xChannel_12	BOOL	True: Read channel 1 and 2 False: Read channel 3 and 4	
bMailBoxLength	BYTE	Length of the mailbox	
Output parameters:	**Data type:**		
bError	BYTE	Error. Details according to manual 750-655 chapter ?Mailbox result codes?(2.1.1.8.2).	
wValue 1	WORD	Analog channel 1	
wValue 2	WORD	Analog channel 2	
wValue 3	WORD	Analog channel 3	
wValue 4	WORD	Analog channel 4	

AS_Interface_01.lib

Reading data from an analog slave 7.3

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Category:			
Name:	AS_InterfaceAnalogInput		
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Library name:	AS_Interface_01.lib		
Usable for:	750-806 ,750-833 ,750-837 ,750-842 ,750-841, 758-870		
Input parameters:	**Data type:**	**Comments:**	
bAnalogSlaveAddress	BYTE	Address of analog slave	
xChannel_12	BOOL	True: Read channel 1 and 2 False: Read channel 3 and 4	
bMailBoxLength	BYTE	Length of the mailbox	
Output parameters:	**Data type:**		
bError	BYTE	Error. Details according to manual 750-655 chapter „Mailbox result codes“(2.1.1.8.2).	
wValue 1	WORD	Analog channel 1	
wValue 2	WORD	Analog channel 2	
wValue 3	WORD	Analog channel 3	
wValue 4	WORD	Analog channel 4	

WAGO-I/O-*SYSTEM*		
Input and output parameters:	**Data type:**	**Comments:**
aOut	ARRAY[1..] OF BYTE	Output address area of the AS Interface module.
aIn	ARRAY[1..] OF BYTE	Input address area of the AS Interface module.
xStart	BOOL	Start reading. The bit will be reset after execution of the read command. The analog values will be displayed in the outputs and error will be zero. A faulty execution will result in a non-zero error code. In this case the output values are not valid.

Functional description:

This function block enables the simple access to the analog values of analog slaves connected to the AS Interface 750-655.

The controller is notified of the module?s address range by the parameters aIn and aOut.

In the global variable list, the following entry is necessary. The length has to match the terminal 750-655 settings.

VAR_GLOBAL CONSTANT

AS_InterfaceLength:INT:=24;

END_VAR

The input parameter Channel_12 will distinguish between channels 1and 2 or 3 and 4 in case of an 4 channel module and a mailbox length of 6 Bytes. The input needs to be true in case of a 2 channel module.

Data will be read from the analog slave if the input xStart goes high. The input xStart has to be set by the application program. It will be reset by the function block. A zero at the error output indicates that the reading command has been successfylly executed. If the read is not successful, a non-zero value at the error output will indicate the error code. Details of the error code can be found in the manual 750-655 chapter ?Mailbox result codes?(2.1.1.8.2).

WAGO-I/O-*SYSTEM*		
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In the global variable list, the following entry is necessary. The length has to match the terminal 750-655 settings.

```
VAR_GLOBAL CONSTANT
    AS_InterfaceLength:INT:=24;
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Data will be read from the analog slave if the input xStart goes high. The input xStart has to be set by the application program. It will be reset by the function block. A zero at the error output indicates that the reading command has been successfylly executed. If the read is not successful, a non-zero value at the error output will indicate the error code. Details of the error code can be found in the manual 750-655 chapter „Mailbox result codes“(2.1.1.8.2).

Reading the status from a Leuze safety monitor

WAGO-I/O-*SYSTEM*			
Category:			
Name:	AS_InterfaceSafetyMonitor		
Type:	Function	Function block X	Program
Library name:	AS_Interface_01.lib		
Usable for:	750-806 ,750-833 ,750-837 ,750-842 ,750-841, 758-870		
Input parameters:	**Data type:**	**Comments:**	
bMailboxLength	BYTE	Length of the mailbox.	
xMailboxOverlapping	BOOL	True: if the mailbox mode is configured to overlapping.	
bSafetyMonitorAddress	BYTE	AS-i address of Leuze Safety monitor.	
Output parameters:	**Data type:**		
bSafetyMonitorStatus	BYTE	0:OK 1:safety mode, circuit 1 off 2:safety mode, circuit 2 off 3:safety mode, circuit 1 and 2 off 4,5,6: configuration mode 7:fatal error, Leuze monitor corrupt More details see Leuze manual chapter 9.2	
bError	BYTE	Error. Details according to manual 750-655 chapter ?Mailbox result codes?(2.1.1.8.2)	
dSafetySlaveStatus	DWORD	One bit for each safety slave. The LSB bit shows status of slave address 0.	
Input and output parameters:	**Data type:**	**Comments:**	
aOut	ARRAY[1..] OF BYTE	Output address area of the AS Interface module.	
aIn	ARRAY[1..] OF BYTE	Input address area of the AS Interface module.	

Reading the status from a Leuze safety monitor

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Category:			
Name:	AS_InterfaceSafetyMonitor		
Type:	Function	Function block X	Program
Library name:	AS_Interface_01.lib		
Usable for:	750-806 ,750-833 ,750-837 ,750-842 ,750-841, 758-870		
Input parameters:	**Data type:**	**Comments:**	
bMailboxLength	BYTE	Length of the mailbox.	
xMailboxOverlapping	BOOL	True: if the mailbox mode is configured to overlapping.	
bSafetyMonitorAddress	BYTE	AS-i address of Leuze Safety monitor.	
Output parameters:	**Data type:**		
bSafetyMonitorStatus	BYTE	0:OK 1:safety mode, circuit 1 off 2:safety mode, circuit 2 off 3:safety mode, circuit 1 and 2 off 4,5,6: configuration mode 7:fatal error, Leuze monitor corrupt More details see Leuze manual chapter 9.2	
bError	BYTE	Error. Details according to manual 750-655 chapter „Mailbox result codes“(2.1.1.8.2)	
dSafetySlaveStatus	DWORD	One bit for each safety slave. The LSB bit shows status of slave address 0.	
Input and output parameters:	**Data type:**	**Comments:**	
aOut	ARRAY[1..] OF BYTE	Output address area of the AS Interface module.	
aIn	ARRAY[1..] OF BYTE	Input address area of the AS Interface module.	

WAGO-I/O-*SYSTEM*		
xStart	BOOL	Start reading. The bit xStart will be reset after execution of the read command. The status of each safety slave will be displayed in the output dSafetySlaveStatus and bError will be zero. A faulty execution will result in anon-zero error code. In this case the output dSafetySlaveStatus is not valid.
Functional description:		
This module enables the simple integration of a Leuze Safety monitor connected to the AS Interface 750-655 from the WAGO-I/O SYSTEM. The function block will continuously monitor the status of the Leuze monitor and display the status in the output bSafetyMonitorStatus. Detailed information about the safety slaves is encoded and reported as a non-zero value in the output bSafetyMonitorStatus. To execute the function block, it is necessary to set the input xStart to TRUE. The function block will reset this InOut parameter after the execution of the command. A value of FALSE indicates that the reading command has been executed. The bError output displays the result of the reading command. If the output is zero, the output dSafetySlaveStatus will show the status of each safety slave, using one bit of the dword variable for each slave device. If the output is a non-zero value, the error code can be referenced in the manual 750-655 chapter ?Mailbox result codes?(2.1.1.8.2) The input xMailBoxOverlapping has to be set to TRUE, if the module 750-655 is configured in the mailbox overlapping mode. The controller is notified of the module?s address range by the parameters aIn and aOut. **In the global variable list, the following entry is necessary. The length has to match with the terminal 750-655 settings.** **VAR_GLOBAL CONSTANT** **AS_InterfaceLength:INT:=24;** **END_VAR**		

WAGO-I/O-*SYSTEM*		
xStart	BOOL	Start reading. The bit xStart will be reset after execution of the read command. The status of each safety slave will be displayed in the output dSafetySlaveStatus and bError will be zero. A faulty execution will result in anon-zero error code. In this case the output dSafetySlaveStatus is not valid.

Functional description:

This module enables the simple integration of a Leuze Safety monitor connected to the AS Interface 750-655 from the WAGO-I/O SYSTEM.

The function block will continuously monitor the status of the Leuze monitor and display the status in the output bSafetyMonitorStatus.

Detailed information about the safety slaves is encoded and reported as a non-zero value in the output bSafetyMonitorStatus.

To execute the function block, it is necessary to set the input xStart to TRUE. The function block will reset this InOut parameter after the execution of the command. A value of FALSE indicates that the reading command has been executed.

The bError output displays the result of the reading command. If the output is zero, the output dSafetySlaveStatus will show the status of each safety slave, using one bit of the dword variable for each slave device.

If the output is a non-zero value, the error code can be referenced in the manual 750-655 chapter „Mailbox result codes“(2.1.1.8.2)

The input xMailBoxOverlapping has to be set to TRUE, if the module 750-655 is configured in the mailbox overlapping mode.

The controller is notified of the module’s address range by the parameters aIn and aOut.

In the global variable list, the following entry is necessary. The length has to match with the terminal 750-655 settings.

```
VAR_GLOBAL CONSTANT
    AS_InterfaceLength:INT:=24;
END_VAR
```