

Add-On Instructions for R10X IO-Link Sensors

Configuration and Process Data Using IO-Link Masters

Introduction

Add-On Instructions are easy-to-use function blocks designed for RSLogix 5000®/Studio 5000®. The instructions allow IO-Link parameters to be read and written by simple logic. Process data is also displayed in the correct format with the help of the Process Add-On Instructions.

Available Instructions

Instruction	Description
PF_OBD_R10X_IOLINK2	Configuration of OBD R10x diffused photoelectric sensors
PF_OBE_R_R10X_IOLINK2	Configuration of OBE R10x thru-beam photoelectric receivers
PF_OBE_S_R10X_IOLINK2	Configuration of OBS R10x thru-beam photoelectric senders/emitters
PF_OBG_R10X_IOLINK2	Configuration of OBG R10x retroreflective clear-glass photoelectric sensor
PF_OBR_R10X_IOLINK2	Configuration of OBR R10x retroreflective photoelectric sensor
PF_OBT_R10X_IOLINK2	Configuration of OBT R10x background suppression photoelectric sensor
PF_OMT_R10X_IOLINK2	Configuration of OMT R10x measurement photoelectric sensor
PF_OMT_R10X_Process_INT	Process Data display of OMT R10x measurement photoelectric sensors (used when IO-Link data comes in as INT array)
PF_OMT_R10X_Process_SINT	Process Data display of OMT R10x measurement photoelectric sensors (used when IO-Link data comes in as SINT array)
PF_OQT_R10X_IOLINK2	Configuration of OQT R10x background suppression photoelectric sensors with measuring core.

Supported IO-Link Masters

IO-Link Master	Description
ICE1-8IOL-G60L-V1D	8-port Pepperl+Fuchs IO-Link master in metal housing
ICE1-8IOL-G30L-V1D	8-port Pepperl+Fuchs IO-Link master in compact metal housing
ICE2-8IOL-G65L-V1D	8-port Pepperl+Fuchs IO-Link master in plastic housing

ICE2-8IOL-K45P-RJ45	8-port Pepperl+Fuchs Panel Mount IO-Link master, spring terminals
ICE2-8IOL-K45S-RJ45	8-port Pepperl+Fuchs Panel Mount IO-Link master, screw terminals
1734-4IOL	Allen-Bradley® Point-IO IO-Link master
1732E-8IOLM12R	Allen-Bradley ArmorBlock® IO-Link master

Version

All Add-Ons were created in Studio 5000 V24. The instructions were also copied, pasted, and exported to a version 16 project. This allows the instructions to work on all PLC versions.

PF ... R10X-IOLINK2 Add-On Instructions

All instructions have a common functionality and are configured the same.

Trigger Reading and Writing IO-Link Parameters

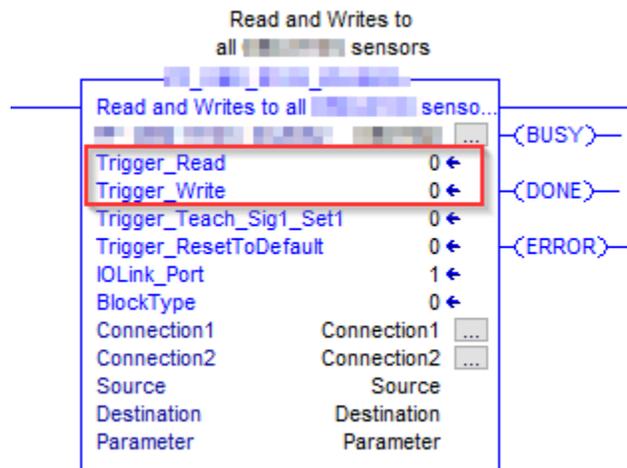


Figure 1: Trigger commands to read or write parameters

When all triggers are low, the “Busy, Done, and Error” bits will go low. Only one trigger can be issued at a time. The command is executed in the off-to-on transition and is complete when either a DONE or ERROR bit turns on. When complete, the parameters are read/written to a user-defined type. The description of each variable is listed and marked as read-only (ro) or read/write (rw). Additionally, the index and sub index are listed to allow access to each variable separately.

Suggested order of operations to change parameters:

1. Read parameters
2. Make changes
3. Write parameters

The parameters are broken up into three parts: Identification, Configuration, and Diagnostics. All sensors have the same identification parameters, but will have model-specific configuration and diagnostic parameters.

Parameter Identification

Parameter	{ ... }		PF_OB...	
Parameter.Identification	{ ... }		PF_Ide...	
Parameter.Identification.Vendor_Name	{ ... }	ASCII	SINT[32]	ro, 16-0
Parameter.Identification.Vendor_Text	{ ... }	ASCII	SINT[32]	ro, 17-0
Parameter.Identification.Product_Name	{ ... }	ASCII	SINT[32]	ro, 18-0
Parameter.Identification.Product_ID	{ ... }	ASCII	SINT[32]	ro, 19-0
Parameter.Identification.Product_Text	{ ... }	ASCII	SINT[64]	ro, 20-0
Parameter.Identification.Serial_Number	{ ... }	ASCII	SINT[32]	ro, 21-0
Parameter.Identification.Hardware_Revision	{ ... }	ASCII	SINT[32]	ro, 22-0
Parameter.Identification.Firmware_Revision	{ ... }	ASCII	SINT[64]	ro, 23-0
Parameter.Identification.App_Specific_Tag	{ ... }	ASCII	SINT[32]	rw, 24-0
Parameter.Identification.User_Tag	{ ... }	Decimal	SINT[32]	rw, 192-0
Parameter.Identification.Minimum_Cycle_Time	0	Decimal	SINT	ro, 0-2
Parameter.Identification.Master_Cycle_Time	0	Decimal	SINT	ro, 0-1
Parameter.Identification.IOLink_Version	16#00	Hex	SINT	ro, 0-4

Parameter Configuration for OBD Sensors

Parameter Configuration	{ ... }		PF_OBDConfig...	
Parameter.Configuration.Switching_Sig1_Setpoint	0	Decimal	INT	rw, 70 2, set point value for switching signal
Parameter.Configuration.Switching_Sig1_Logic	0	Decimal	SINT	rw, 71 1, 0 = active high - not inverted, 1 = active low - inverted
Parameter.Configuration.Switching_Sig1_OffDelayTime	0	Decimal	INT	rw, 64-1, 0=disabled, 1-60000, Does Off and one shot delay time, (above 31767 ent...
Parameter.Configuration.Switching_Sig1_OnDelayTime	0	Decimal	INT	rw, 64-2, 0=disabled, 1-60000 (above 31767 enter value in hex)
Parameter.Configuration.Switching_Sig1_DelayMode	0	Decimal	SINT	rw, 64-3, 0 = on / off delay, 1 = on delay / one shot
Parameter.Configuration.Teach_LocalControl	0	Decimal	SINT	rw, 126-0 false disabled, true enabled
Parameter.Configuration.SignalFilter	0	Decimal	SINT	rw, 97-0, 0=standard, 1=high
Parameter.Configuration.ProcessData_Config_EmitterCon...	0	Decimal	SINT	rw, 104-0, bit 0
Parameter.Configuration.ProcessData_Config_EvalHoldF...	0	Decimal	SINT	rw, 104-0, bit 1
Parameter.Configuration.Event_Config_Interference	0	Decimal	SINT	rw, 120 bit 2
Parameter.Configuration.Event_Config_TestMode	0	Decimal	SINT	rw, 120-0 bit 8
Parameter.Configuration.IOType	0	Decimal	SINT	rw, 113-0, 0 = factory default, 1 = push-pull output, 4 = high impedance, 5 = high ac...
Parameter.Configuration.OutputFunction	0	Decimal	INT	rw, 117-0, 0 = factory default, 1 = antivalent, 2 = equivalent, 3 = stability alarm, 255 ...
Parameter.Configuration.InputFunction	0	Decimal	SINT	rw, 118-0, 0 = factory default, 1 = test mode, 2 = teach-in
Parameter.Configuration.DeviceAccessLocks	0	Decimal	INT	rw, 12-0 bit0=Parameter Write Access Lock, Bit1=Data Storage Lock, bit2Local par...

Parameter Configuration for OBE Sensors

Parameter OBE Configuration	{ ... }		PF_OBEConf...	
Parameter.OBE.Configuration.Switching_Sig1_Sensitivity	0	Decimal	INT	rw, 70 2, 1..1000, default 1000
Parameter.OBE.Configuration.Switching_Sig1_Logic	0	Decimal	SINT	rw, 71 1, 0 = active high - not inverted, 1 = active low - inverted
Parameter.OBE.Configuration.Switching_Sig1_OffDelayTime	0	Decimal	INT	rw, 64-1, 0=disabled, 1-60000, Does Off and one shot delay time, (above 31767 ent...
Parameter.OBE.Configuration.Switching_Sig1_OnDelayTime	0	Decimal	INT	rw, 64-2, 0=disabled, 1-60000 (above 31767 enter value in hex)
Parameter.OBE.Configuration.Switching_Sig1_DelayMode	0	Decimal	SINT	rw, 64-3, 0 = on / off delay, 1 = on delay / one shot
Parameter.OBE.Configuration.Teach_LocalControl	0	Decimal	SINT	rw, 126-0 false disabled, true enabled
Parameter.OBE.Configuration.SignalFilter	0	Decimal	SINT	rw, 97-0, 0=standard, 1=high
Parameter.OBE.Configuration.Operating_Reserve_Thresh...	0	Decimal	SINT	rw, 68 1, 0 = inactive, 1 = factor 1.5, 2 = factor 2.0, 3 = factor 2.5, 4 = factor 3
Parameter.OBE.Configuration.Stability_Alarm_Logic	0	Decimal	SINT	rw, 69 1, 0 = active high - not inverted, 1 = active low - inverted
Parameter.OBE.Configuration.Pulse_Frequency	0	Decimal	SINT	rw, 98 1, 0 = factory default, 1 = frequency F1, 2 = frequency F2
Parameter.OBE.Configuration.ProcessData_Config_EvalH...	0	Decimal	SINT	rw, 104-0, bit 1
Parameter.OBE.Configuration.Event_Config_StabilityAlarm	0	Decimal	SINT	rw, 120 bit 0
Parameter.OBE.Configuration.Event_Config_Interference	0	Decimal	SINT	rw, 120-0 bit 2
Parameter.OBE.Configuration.IOType	0	Decimal	SINT	rw, 113-0, 0 = factory default, 1 = push-pull output, 4 = high impedance, 5 = high ac...
Parameter.OBE.Configuration.OutputFunction	0	Decimal	INT	rw, 117-0, 0 = factory default, 1 = antivalent, 2 = equivalent, 3 = stability alarm, 255 ...
Parameter.OBE.Configuration.InputFunction	0	Decimal	SINT	rw, 118-0, 0 = factory default, 1 = test mode, 2 = teach-in
Parameter.OBE.Configuration.DeviceAccessLocks	0	Decimal	INT	rw, 12-0 bit0=Parameter Write Access Lock, Bit1=Data Storage Lock, bit2Local par...

Parameter Configuration for OBE_S Sensors

Parameter	Value	Unit	PF	OBESConf...
ParameterOBE_S.Configuration	{...}			
ParameterOBE_S.Configuration.Pulse_Frequency	0	Decimal	SINT	rw, 98 1, 0 = factory default, 1 = frequency F1, 2 = frequency F2
ParameterOBE_S.Configuration.ProcessData_Config_Emi...	0	Decimal	SINT	rw, 104-0, bit 0
ParameterOBE_S.Configuration.Event_Config_TestMode	0	Decimal	SINT	rw, 120-0 bit 8
ParameterOBE_S.Configuration.IOType	0	Decimal	SINT	rw, 112x-0, 0 = factory default, 1 = push-pull output, 4 = high impedance, 5 = high ...
ParameterOBE_S.Configuration.DeviceAccessLocks	0	Decimal	INT	rw, 12-0 bit0=Parameter Write Access Lock, Bit1=Data Storage Lock, bit2Local par...

Parameter Configuration for OBG Sensors

Parameter	Value	Unit	PF	OBGConfig...
ParameterOBG.Configuration	{...}			
ParameterOBG.Configuration.Switching_Sig1_Sensitivity	0	Decimal	INT	rw, 70 2, 1..1000, default 1000
ParameterOBG.Configuration.Switching_Sig1_Logic	0	Decimal	SINT	rw, 71 1, 0 = active high - not inverted, 1 = active low - inverted
ParameterOBG.Configuration.Switching_Sig1_OffDelayTime	0	Decimal	INT	rw, 64-1, 0=disabled, 1-60000, Does Off and one shot delay time, (above 31767 ent...
ParameterOBG.Configuration.Switching_Sig1_OnDelayTime	0	Decimal	INT	rw, 64-2, 0=disabled, 1-60000 (above 31767 enter value in hex)
ParameterOBG.Configuration.Switching_Sig1_DelayMode	0	Decimal	SINT	rw, 64-3, 0 = on / off delay, 1 = on delay / one shot
ParameterOBG.Configuration.Teach_LocalControl	0	Decimal	SINT	rw, 126-0 false disabled, true enabled
ParameterOBG.Configuration.SignalFilter	0	Decimal	SINT	rw, 97-0, 0=standard, 1=high
ParameterOBG.Configuration.Operation_Mode	0	Decimal	SINT	rw, 80 1, 0 = normal, 1 = contrast 10%, 2 = contrast 18%, 3 = contrast 40%
ParameterOBG.Configuration.Operating_Reserve_Threshold	0	Decimal	SINT	rw, 68 1, 0 = inactive, 1 = factor 1.5, 2 = factor 2.0, 3 = factor 2.5, 4 = factor 3.0, -1 ...
ParameterOBG.Configuration.Stability_Alarm_Logic	0	Decimal	SINT	rw, 69 1, 0 = active high - not inverted, 1 = active low - inverted
ParameterOBG.Configuration.ProcessData_Config_EmitterControl	0	Decimal	SINT	rw, 104-0, bit 0
ParameterOBG.Configuration.ProcessData_Config_EvalHoldFunc	0	Decimal	SINT	rw, 104-0, bit 1
ParameterOBG.Configuration.Event_Config_StabilityAlarm	0	Decimal	SINT	rw, 120 bit 0
ParameterOBG.Configuration.Event_Config_Interference	0	Decimal	SINT	rw, 120-0 bit 2
ParameterOBG.Configuration.Event_Config_TestMode	0	Decimal	SINT	rw, 120-0 bit 8
ParameterOBG.Configuration.IOType	0	Decimal	SINT	rw, 113-0, 0 = factory default, 1 = push-pull output, 4 = high impedance, 5 = high ac...
ParameterOBG.Configuration.OutputFunction	0	Decimal	INT	rw, 117-0, 0 = factory default, 1 = antivalent, 2 = equivalent, 3 = stability alarm, 255 ...
ParameterOBG.Configuration.InputFunction	0	Decimal	SINT	rw, 118-0, 0 = factory default, 1 = test mode, 2 = teach-in
ParameterOBG.Configuration.DeviceAccessLocks	0	Decimal	INT	rw, 12-0 bit0=Parameter Write Access Lock, Bit1=Data Storage Lock, bit2Local par...
ParameterOBG.Configuration.Regulation_Mode	0	Decimal	SINT	rw, 98 1, selects the the operation mode of the signal regulation in contrast detectio...
ParameterOBG.Configuration.Regulation_Time	0	Decimal	SINT	rw, 98 1, allows setting of timing characteristics for signal regulation in contrast detec...

Parameter Configuration for OBR Sensors

Parameter	Value	Unit	PF	OBRConfig...
ParameterOBR.Configuration	{...}			
ParameterOBR.Configuration.Switching_Sig1_Sensitivity	0	Decimal	INT	rw, 70 2, 1..1000, default 1000
ParameterOBR.Configuration.Switching_Sig1_Logic	0	Decimal	SINT	rw, 71 1, 0 = active high - not inverted, 1 = active low - inverted
ParameterOBR.Configuration.Switching_Sig1_OffDelayTime	0	Decimal	INT	rw, 64-1, 0=disabled, 1-60000, Does Off and one shot delay time, (above 31767 ent...
ParameterOBR.Configuration.Switching_Sig1_OnDelayTime	0	Decimal	INT	rw, 64-2, 0=disabled, 1-60000 (above 31767 enter value in hex)
ParameterOBR.Configuration.Switching_Sig1_DelayMode	0	Decimal	SINT	rw, 64-3, 0 = on / off delay, 1 = on delay / one shot
ParameterOBR.Configuration.Teach_LocalControl	0	Decimal	SINT	rw, 126-0 false disabled, true enabled
ParameterOBR.Configuration.SignalFilter	0	Decimal	SINT	rw, 97-0, 0=standard, 1=high
ParameterOBR.Configuration.Operating_Reserve_Threshold	0	Decimal	SINT	rw, 68 1, 0 = inactive, 1 = factor 1.5, 2 = factor 2.0, 3 = factor 2.5, 4 = factor 3.0, -1 ...
ParameterOBR.Configuration.Stability_Alarm_Logic	0	Decimal	SINT	rw, 69 1, 0 = active high - not inverted, 1 = active low - inverted
ParameterOBR.Configuration.ProcessData_Config_EmitterControl	0	Decimal	SINT	rw, 104-0, bit 0
ParameterOBR.Configuration.ProcessData_Config_EvalHoldFunc	0	Decimal	SINT	rw, 104-0, bit 1
ParameterOBR.Configuration.Event_Config_StabilityAlarm	0	Decimal	SINT	rw, 120 bit 0
ParameterOBR.Configuration.Event_Config_Interference	0	Decimal	SINT	rw, 120-0 bit 2
ParameterOBR.Configuration.Event_Config_TestMode	0	Decimal	SINT	rw, 120-0 bit 8
ParameterOBR.Configuration.IOType	0	Decimal	SINT	rw, 113-0, 0 = factory default, 1 = push-pull output, 4 = high impedance, 5 = high ac...
ParameterOBR.Configuration.OutputFunction	0	Decimal	INT	rw, 117-0, 0 = factory default, 1 = antivalent, 2 = equivalent, 3 = stability alarm, 255 ...
ParameterOBR.Configuration.InputFunction	0	Decimal	SINT	rw, 118-0, 0 = factory default, 1 = test mode, 2 = teach-in
ParameterOBR.Configuration.DeviceAccessLocks	0	Decimal	INT	rw, 12-0 bit0=Parameter Write Access Lock, Bit1=Data Storage Lock, bit2Local par...

Parameter Configuration for OBT Sensors

ParameterOBT.Configuration	{ ... }		PF_OBTConfigu...	
+ ParameterOBT.Configuration.Switching_Sig1_Setpoint1	0	Decimal	INT	rw, 60-1, Setpoint 1 of switching signal 1
+ ParameterOBT.Configuration.Switching_Sig1_Logic	0	Decimal	SINT	rw, 61-1, 0 = active high - not inverted, 1 = active low - inverted
+ ParameterOBT.Configuration.Switching_Sig1_Mode	0	Decimal	INT	rw, 61-2, 0 = inactive, 1 = single point, 2 = window, 3 = two point, 128 = centered wi...
+ ParameterOBT.Configuration.Switching_Sig1_Hysteresis	0	Decimal	INT	rw, 61-3, 0 = standard, 1 = high
+ ParameterOBT.Configuration.Switching_Sig1_Offset	0	Decimal	INT	rw, 66-0, the setpoint offset defines the switchpoint of the sensor relative to the setp...
+ ParameterOBT.Configuration.Switching_Sig1_OffDelayTime	0	Decimal	INT	rw, 64-1, 0=disabled, 1-60000, Does Off and one shot delay time, (above 31767 ent...
+ ParameterOBT.Configuration.Switching_Sig1_OnDelayTime	0	Decimal	INT	rw, 64-2, 0=disabled, 1-60000 (above 31767 enter value in hex)
+ ParameterOBT.Configuration.Switching_Sig1_DelayMode	0	Decimal	SINT	rw, 64-3, 0 = on / off delay, 1 = on delay / one shot
+ ParameterOBT.Configuration.Teach_LocalControl	0	Decimal	SINT	rw, 126-0 false disabled, true enabled
+ ParameterOBT.Configuration.SignalFilter	0	Decimal	SINT	rw, 97-0, 0=standard, 1=high
+ ParameterOBT.Configuration.ProcessData_Config_EmitterControl	0	Decimal	SINT	rw, 104-0, bit 0
+ ParameterOBT.Configuration.ProcessData_Config_EvalHoldFunc	0	Decimal	SINT	rw, 104-0, bit 1
+ ParameterOBT.Configuration.Event_Config_Interference	0	Decimal	SINT	rw, 120 bit 2
+ ParameterOBT.Configuration.Event_Config_TestMode	0	Decimal	SINT	rw, 120-0 bit 8
+ ParameterOBT.Configuration.IOType	0	Decimal	SINT	rw, 113-0, 0 = factory default, 1 = push-pull output, 4 = high impedance, 5 = high ac...
+ ParameterOBT.Configuration.OutputFunction	0	Decimal	INT	rw, 117-0, 0 = factory default, 1 = antivalent, 2 = equivalent, 3 = stability alarm, 255 ...
+ ParameterOBT.Configuration.InputFunction	0	Decimal	SINT	rw, 118-0, 0 = factory default, 1 = test mode, 2 = teach-in
+ ParameterOBT.Configuration.DeviceAccessLocks	0	Decimal	INT	rw, 12-0 bit0=Parameter Write Access Lock, Bit1=Data Storage Lock, bit2Local par...

Parameter Configuration for OMT Sensors

ParameterOMT.Configuration	{ ... }		PF_OMTConfig...	
+ ParameterOMT.Configuration.Switching_Sig1_Setpoint1	0	Decimal	INT	rw, 60-1, Setpoint 1 of switching signal 1
+ ParameterOMT.Configuration.Switching_Sig1_Setpoint2	0	Decimal	INT	rw, 60-2, Setpoint 2 of switching signal 2
+ ParameterOMT.Configuration.Switching_Sig1_Logic	0	Decimal	SINT	rw, 61-1, 0 = active high - not inverted, 1 = active low - inverted
+ ParameterOMT.Configuration.Switching_Sig1_Mode	0	Decimal	INT	rw, 61-2, 0 = inactive, 1 = single point, 2 = window, 3 = two point, 128 = centered wi...
+ ParameterOMT.Configuration.Switching_Sig1_Hysteresis	0	Decimal	INT	rw, 61-3, 0 = standard, 1 = high
+ ParameterOMT.Configuration.Switching_Sig1_Offset	0	Decimal	INT	rw, 66-0, the setpoint offset defines the switchpoint of the sensor relative to the setp...
+ ParameterOMT.Configuration.Switching_Sig1_OffDelayTime	0	Decimal	INT	rw, 64-1, 0=disabled, 1-60000, Does Off and one shot delay time, (above 31767 ent...
+ ParameterOMT.Configuration.Switching_Sig1_OnDelayTime	0	Decimal	INT	rw, 64-2, 0=disabled, 1-60000 (above 31767 enter value in hex)
+ ParameterOMT.Configuration.Switching_Sig1_DelayMode	0	Decimal	SINT	rw, 64-3, 0 = on / off delay, 1 = on delay / one shot
+ ParameterOMT.Configuration.Switching_Sig2_Setpoint1	0	Decimal	INT	rw, 62-1, Setpoint 1 of switching signal 1
+ ParameterOMT.Configuration.Switching_Sig2_Setpoint2	0	Decimal	INT	rw, 62-2, Setpoint 2 of switching signal 2
+ ParameterOMT.Configuration.Switching_Sig2_Logic	0	Decimal	SINT	rw, 63-1, 0 = active high - not inverted, 1 = active low - inverted
+ ParameterOMT.Configuration.Switching_Sig2_Mode	0	Decimal	INT	rw, 63-2, 0 = inactive, 1 = single point, 2 = window, 3 = two point, 128 = centered wi...
+ ParameterOMT.Configuration.Switching_Sig2_Hysteresis	0	Decimal	INT	rw, 63-3, 0 = standard, 1 = high
+ ParameterOMT.Configuration.Switching_Sig2_Offset	0	Decimal	INT	rw, 67-0, the setpoint offset defines the switchpoint of the sensor relative to the setp...
+ ParameterOMT.Configuration.Switching_Sig2_OffDelayTime	0	Decimal	INT	rw, 65-1, 0=disabled, 1-60000, Does Off and one shot delay time, (above 31767 ent...
+ ParameterOMT.Configuration.Switching_Sig2_OnDelayTime	0	Decimal	INT	rw, 65-2, 0=disabled, 1-60000 (above 31767 enter value in hex)
+ ParameterOMT.Configuration.Switching_Sig2_DelayMode	0	Decimal	SINT	rw, 65-3, 0 = on / off delay, 1 = on delay / one shot
+ ParameterOMT.Configuration.Measurement_Offset	0	Decimal	INT	rw, 98-0 -1400..200, default 0 measurement offset from true measured value
+ ParameterOMT.Configuration.Teach_LocalControl	0	Decimal	SINT	rw, 126-0 false disabled, true enabled, Allows the user to teach using pushbutton wh...
+ ParameterOMT.Configuration.SignalFilter	0	Decimal	SINT	rw, 97-0, 0=standard, 1=high
+ ParameterOMT.Configuration.ProcessData_Config_EmitterControl	0	Decimal	SINT	rw, 104-0, bit 0
+ ParameterOMT.Configuration.ProcessData_Config_EvalHoldFunc	0	Decimal	SINT	rw, 104-0, bit 1
+ ParameterOMT.Configuration.Event_Config_Invalid	0	Decimal	SINT	rw, 120-0 bit 1
+ ParameterOMT.Configuration.Event_Config_TestMode	0	Decimal	SINT	rw, 120-0 bit 8
+ ParameterOMT.Configuration.IOType	0	Decimal	SINT	rw, 113-0, 0 = factory default, 1 = push-pull output, 4 = high impedance, 5 = high ac...
+ ParameterOMT.Configuration.OutputFunction	0	Decimal	INT	rw, 117-0, 0 = factory default, 1 = antivalent, 2 = equivalent, 3 = stability alarm, 255 ...
+ ParameterOMT.Configuration.InputFunction	0	Decimal	SINT	rw, 118-0, 0 = factory default, 1 = test mode, 2 = teach-in
+ ParameterOMT.Configuration.DeviceAccessLocks	0	Decimal	INT	rw, 12-0 bit0=Parameter Write Access Lock, Bit1=Data Storage Lock, bit2Local par...

Parameter Configuration for OQT Sensors

Parameter.OQT.Configuration	{ ... }			PF_OQTConfig...	
+ Parameter.OQT.Configuration.Switching_Sig1_Setpoint1	0	Decimal	INT	rw, 60-1, Setpoint 1 of switching signal 1	
+ Parameter.OQT.Configuration.Switching_Sig1_Setpoint2	0	Decimal	INT	rw, 60-2, Setpoint 2 of switching signal 2	
+ Parameter.OQT.Configuration.Switching_Sig1_Logic	0	Decimal	SINT	rw, 61-1, 0 = active high - not inverted, 1 = active low - inverted	
+ Parameter.OQT.Configuration.Switching_Sig1_Mode	0	Decimal	INT	rw, 61-2, 0 = inactive, 1 = single point, 2 = window, 3 = two point, 128 = centered wi...	
+ Parameter.OQT.Configuration.Switching_Sig1_Hysteresis	0	Decimal	INT	rw, 61-3, 0 = standard, 1 = high	
+ Parameter.OQT.Configuration.Switching_Sig1_Offset	0	Decimal	INT	rw, 66-0, the setpoint offset defines the switchpoint of the sensor relative to the setp...	
+ Parameter.OQT.Configuration.Switching_Sig1_OffDelayTime	0	Decimal	INT	rw, 64-1, 0=disabled, 1-60000, Does Off and one shot delay time, (above 31767 ent...	
+ Parameter.OQT.Configuration.Switching_Sig1_OnDelayTime	0	Decimal	INT	rw, 64-2, 0=disabled, 1-60000 (above 31767 enter value in hex)	
+ Parameter.OQT.Configuration.Switching_Sig1_DelayMode	0	Decimal	SINT	rw, 64-3, 0 = on / off delay, 1 = on delay / one shot	
+ Parameter.OQT.Configuration.Switching_Sig2_Setpoint1	0	Decimal	INT	rw, 62-1, Setpoint 1 of switching signal 1	
+ Parameter.OQT.Configuration.Switching_Sig2_Setpoint2	0	Decimal	INT	rw, 62-2, Setpoint 2 of switching signal 2	
+ Parameter.OQT.Configuration.Switching_Sig2_Logic	0	Decimal	SINT	rw, 63-1, 0 = active high - not inverted, 1 = active low - inverted	
+ Parameter.OQT.Configuration.Switching_Sig2_Mode	0	Decimal	INT	rw, 63-2, 0 = inactive, 1 = single point, 2 = window, 3 = two point, 128 = centered wi...	
+ Parameter.OQT.Configuration.Switching_Sig2_Hysteresis	0	Decimal	INT	rw, 63-3, 0 = standard, 1 = high	
+ Parameter.OQT.Configuration.Switching_Sig2_Offset	0	Decimal	INT	rw, 67-0, the setpoint offset defines the switchpoint of the sensor relative to the setp...	
+ Parameter.OQT.Configuration.Switching_Sig2_OffDelayTime	0	Decimal	INT	rw, 65-1, 0=disabled, 1-60000, Does Off and one shot delay time, (above 31767 ent...	
+ Parameter.OQT.Configuration.Switching_Sig2_OnDelayTime	0	Decimal	INT	rw, 65-2, 0=disabled, 1-60000 (above 31767 enter value in hex)	
+ Parameter.OQT.Configuration.Switching_Sig2_DelayMode	0	Decimal	SINT	rw, 65-3, 0 = on / off delay, 1 = on delay / one shot	
+ Parameter.OQT.Configuration.Teach_LocalControl	0	Decimal	SINT	rw, 126-0 false disabled, true enabled	
+ Parameter.OQT.Configuration.SignalFilter	0	Decimal	SINT	rw, 97-0, 0=standard, 1=high	
+ Parameter.OQT.Configuration.ProcessData_Config_EmitterControl	0	Decimal	SINT	rw, 104-0, bit 0	
+ Parameter.OQT.Configuration.ProcessData_Config_EvalHoldFunc	0	Decimal	SINT	rw, 104-0, bit 1	
+ Parameter.OQT.Configuration.Event_Config_Invalid	0	Decimal	SINT	rw, 120-0 bit 1	
+ Parameter.OQT.Configuration.Event_Config_TestMode	0	Decimal	SINT	rw, 120-0 bit 8	
+ Parameter.OQT.Configuration.IOType	0	Decimal	SINT	rw, 113-0, 0 = factory default, 1 = push-pull output, 4 = high impedance, 5 = high ac...	
+ Parameter.OQT.Configuration.OutputFunction	0	Decimal	INT	rw, 117-0, 0 = factory default, 1 = antivalent, 2 = equivalent, 3 = stability alarm, 255 ...	
+ Parameter.OQT.Configuration.InputFunction	0	Decimal	SINT	rw, 118-0, 0 = factory default, 1 = test mode, 2 = teach-in	
+ Parameter.OQT.Configuration.DeviceAccessLocks	0	Decimal	INT	rw, 12-0 bit0=Parameter Write Access Lock, Bit1=Data Storage Lock, bit2Local par...	

Parameter Diagnostics for OBD and OBT sensors

Parameter.Diagnostics	{ ... }			PF_OBTDiagnosics	
+ Parameter.Diagnostics.Status	0	Decimal	SINT	0 = Device is OK, 1 = Maintenance 36-0, required, 2 = Out of specification, 3 = Fu...	
+ Parameter.Diagnostics.Status_Detail	{ ... }	Decimal	SINT[12]	37-0	
+ Parameter.Diagnostics.Teach_In_Status		Decimal	SINT	59-0, Status of Teach Operation	
+ Parameter.Diagnostics.Operating_Hours	0	Decimal	DINT	224-0, Total Operating hours	
+ Parameter.Diagnostics.Temperature_Indicator	0	Decimal	SINT	225-0, shows the overall hours of operation, 0 = safe operation temperature, 1 = c...	
+ Parameter.Diagnostics.Overtemperature_Operating_Hours	0	Decimal	DINT	226-0 first DINT	
+ Parameter.Diagnostics.Overtemperature_Incident_Counter	0	Decimal	INT	226-0 second INT	
+ Parameter.Diagnostics.Maximum_Operating_Temperature	0	Decimal	SINT	226-0 Third SINT	
+ Parameter.Diagnostics.Device_Operating_Temperature	0	Decimal	SINT	226-0 Fourth SINT	
+ Parameter.Diagnostics.Minimum_Detection_Range	0	Decimal	INT	232-0 First INT	
+ Parameter.Diagnostics.Maximum_Detection_Range	0	Decimal	INT	232-0 Second INT	
+ Parameter.Diagnostics.Signal_Quality_Indicator	0	Decimal	SINT	236-0 second SINT, 0 = insufficient, 1 = acceptable, 2 = good, 3 = excellent	
+ Parameter.Diagnostics.Switching_Signal_1	0	Decimal	SINT	236-0 third SINT	
+ Parameter.Diagnostics.Teach_In_Value	0	Decimal	INT	236-0 fifth INT	
- Parameter.Diagnostics.Emitter_State	0	Decimal	BOOL	238-0 bit 0, true: the emitter is disabled and object detection is not possible	
- Parameter.Diagnostics.Local_Control_State	0	Decimal	BOOL	238-0 bit 1, true: local controls are temporary enabled for adjustment or teach-in in ...	
+ Parameter.Diagnostics.IO_Feature	0	Decimal	INT	239-0, 0=none, 1=analog pin 2, 2=second in, out pin 2, 3=second signal in, analog...	
+ Parameter.Diagnostics.Indication_Control	0	Decimal	SINT	rw, 127-0 Flashes the LEDs so you can better identify the product.	
+ Parameter.Diagnostics.Device_Operation	0	Decimal	SINT	rw, 125-0, default 0, 1 disables the emitter for diagnostic test.	

Parameter Diagnostics for OBR and OBE_R sensors

ParameterOBE_Diagnostics	{ ... }		PF_OBRDiagnostics	
ParameterOBE_Diagnostics.Status	0	Decimal	SINT	0 = Device is OK, 1 = Maintenance 36-0, required, 2 = Out of specification, 3 = Fu...
ParameterOBE_Diagnostics.Status_Detail	{ ... }	Decimal	SINT[12]	37-0
ParameterOBE_Diagnostics.Teach_In_Status	0	Decimal	SINT	59-0 or 79-0, Status of Teach Operation
ParameterOBE_Diagnostics.Operating_Hours	0	Decimal	DINT	224-0, Total Operating hours
ParameterOBE_Diagnostics.Temperature_Indicator	0	Decimal	SINT	225-0, shows the overall hours of operation, 0 = safe operation temperature, 1 = c...
ParameterOBE_Diagnostics.Overtemperature_Operating_Hours	0	Decimal	DINT	226-0 first DINT
ParameterOBE_Diagnostics.Overtemperature_Incident_Counter	0	Decimal	INT	226-0 second INT
ParameterOBE_Diagnostics.Maximum_Operating_Temperature	0	Decimal	SINT	226-0 Third SINT
ParameterOBE_Diagnostics.Device_Operating_Temperature	0	Decimal	SINT	226-0 Fourth SINT
ParameterOBE_Diagnostics.Minimum_Detection_Range	0	Decimal	INT	232-0 First INT
ParameterOBE_Diagnostics.Maximum_Detection_Range	0	Decimal	INT	232-0 Second INT
ParameterOBE_Diagnostics.Operating_Reserve	0	Decimal	INT	236-0 First INT, Depends on sensor
ParameterOBE_Diagnostics.Signal_Quality_Indicator	0	Decimal	SINT	236-0 second SINT, 0 = insufficient, 1 = acceptable, 2 = good, 3 = excellent
ParameterOBE_Diagnostics.Switching_Signal_1	0	Decimal	SINT	236-0 third SINT
ParameterOBE_Diagnostics.Stability_Alarm	0	Decimal	SINT	236 byte 4, current status of stability alarm signal, active if signal level is below the ...
ParameterOBE_Diagnostics.Teach_In_Value	0	Decimal	INT	236-0 Fifth INT
ParameterOBE_Diagnostics.Emitter_State	0	Decimal	BOOL	238-0 bit 0, true: the emitter is disabled and object detection is not possible
ParameterOBE_Diagnostics.Local_Control_State	0	Decimal	BOOL	238-0 bit 1, true: local controls are temporary enabled for adjustment or teach-in in ...
ParameterOBE_Diagnostics.IO_Feature	0	Decimal	INT	239-0, 0=none, 1=analog pin 2, 2=second in, out pin 2, 3=second signal in, analog...
ParameterOBE_Diagnostics.Indication_Control	0	Decimal	SINT	rw, 127-0 Flashes the LEDs so you can better identify the product.
ParameterOBE_Diagnostics.Device_Operation	0	Decimal	SINT	rw, 125-0, default 0, 1 disables the emitter for diagnostic test.

Parameter Diagnostics for OBE_S sensors

ParameterOBE_S_Diagnostics	{ ... }		PF_OBESDiagnostics	
ParameterOBE_S_Diagnostics.Status	0	Decimal	SINT	0 = Device is OK, 1 = Maintenance 36-0, required, 2 = Out of specification, 3 = Fu...
ParameterOBE_S_Diagnostics.Status_Detail	{ ... }	Decimal	SINT[12]	37-0
ParameterOBE_S_Diagnostics.Operating_Hours	0	Decimal	DINT	224-0, Total Operating hours
ParameterOBE_S_Diagnostics.Temperature_Indicator	0	Decimal	SINT	225-0, shows the overall hours of operation, 0 = safe operation temperature, 1 = c...
ParameterOBE_S_Diagnostics.Overtemperature_Operating_Hours	0	Decimal	DINT	226-0 first DINT
ParameterOBE_S_Diagnostics.Overtemperature_Incident_Counter	0	Decimal	INT	226-0 second INT
ParameterOBE_S_Diagnostics.Maximum_Operating_Temperature	0	Decimal	SINT	226-0 Third SINT
ParameterOBE_S_Diagnostics.Device_Operating_Temperature	0	Decimal	SINT	226-0 Fourth SINT
ParameterOBE_S_Diagnostics.Minimum_Detection_Range	0	Decimal	INT	232-0 First INT
ParameterOBE_S_Diagnostics.Maximum_Detection_Range	0	Decimal	INT	232-0 Second INT
ParameterOBE_S_Diagnostics.Emitter_State	0	Decimal	BOOL	238-0 bit 0, true: the emitter is disabled and object detection is not possible
ParameterOBE_S_Diagnostics.Local_Control_State	0	Decimal	BOOL	238-0 bit 1, true: local controls are temporary enabled for adjustment or teach-in in ...
ParameterOBE_S_Diagnostics.IO_Feature	0	Decimal	INT	239-0, 0=none, 1=analog pin 2, 2=second in, out pin 2, 3=second signal in, analog...
ParameterOBE_S_Diagnostics.Indication_Control	0	Decimal	SINT	rw, 127-0 Flashes the LEDs so you can better identify the product.
ParameterOBE_S_Diagnostics.Device_Operation	0	Decimal	SINT	rw, 125-0, default 0, 1 disables the emitter for diagnostic test.

Parameter Diagnostics for OBG sensors

ParameterOBG_Diagnostics	{ ... }		PF_OBGDiagnostics	
ParameterOBG_Diagnostics.Status	0	Decimal	SINT	0 = Device is OK, 1 = Maintenance 36-0, required, 2 = Out of specification, 3 = Fu...
ParameterOBG_Diagnostics.Status_Detail	{ ... }	Decimal	SINT[12]	37-0
ParameterOBG_Diagnostics.Teach_In_Status	0	Decimal	SINT	59-0 or 79-0, Status of Teach Operation
ParameterOBG_Diagnostics.Operating_Hours	0	Decimal	DINT	224-0, Total Operating hours
ParameterOBG_Diagnostics.Temperature_Indicator	0	Decimal	SINT	225-0, shows the overall hours of operation, 0 = safe operation temperature, 1 = c...
ParameterOBG_Diagnostics.Overtemperature_Operating_Hours	0	Decimal	DINT	226-0 first DINT
ParameterOBG_Diagnostics.Overtemperature_Incident_Counter	0	Decimal	INT	226-0 second INT
ParameterOBG_Diagnostics.Maximum_Operating_Temperature	0	Decimal	SINT	226-0 Third SINT
ParameterOBG_Diagnostics.Device_Operating_Temperature	0	Decimal	SINT	226-0 Fourth SINT
ParameterOBG_Diagnostics.Minimum_Detection_Range	0	Decimal	INT	232-0 First INT
ParameterOBG_Diagnostics.Maximum_Detection_Range	0	Decimal	INT	232-0 Second INT
ParameterOBG_Diagnostics.Signal_Level	0	Decimal	INT	236-0 First INT, Depends on sensor
ParameterOBG_Diagnostics.Operating_Reserve	0	Decimal	SINT	236-0 second SINT, 0 = insufficient, 1 = acceptable, 2 = good, 3 = excellent
ParameterOBG_Diagnostics.Switching_Signal_1	0	Decimal	SINT	236-0 third SINT
ParameterOBG_Diagnostics.Stability_Alarm	0	Decimal	SINT	236 byte 4, current status of stability alarm signal, active if signal level is below the ...
ParameterOBG_Diagnostics.Teach_In_Value	0	Decimal	INT	236-0 Fifth INT
ParameterOBG_Diagnostics.Emitter_State	0	Decimal	BOOL	238-0 bit 0, true: the emitter is disabled and object detection is not possible
ParameterOBG_Diagnostics.Local_Control_State	0	Decimal	BOOL	238-0 bit 1, true: local controls are temporary enabled for adjustment or teach-in in ...
ParameterOBG_Diagnostics.IO_Feature	0	Decimal	INT	239-0, 0=none, 1=analog pin 2, 2=second in, out pin 2, 3=second signal in, analog...
ParameterOBG_Diagnostics.Indication_Control	0	Decimal	SINT	rw, 127-0 Flashes the LEDs so you can better identify the product.
ParameterOBG_Diagnostics.Device_Operation	0	Decimal	SINT	rw, 125-0, default 0, 1 disables the emitter for diagnostic test.

Parameter Diagnostics for OMT and OQT sensors

Parameter	Value	Unit	IO	Description
ParameterOMT.Diagnostics	{...}		PF_OQTDiagnostics	
ParameterOMT.Diagnostics.Status	0	Decimal	SINT	0 = Device is OK, 1 = Maintenance 36-0, required, 2 = Out of specification, 3 = Fu...
ParameterOMT.Diagnostics.Status_Detail	{...}	Decimal	SINT[12]	37-0
ParameterOMT.Diagnostics.Teach_In_Status	0	Decimal	SINT	59-0 or 79-0, Status of Teach Operation
ParameterOMT.Diagnostics.Operating_Hours	0	Decimal	DINT	224-0, Total Operating hours
ParameterOMT.Diagnostics.Temperature_Indicator	0	Decimal	SINT	225-0, shows the overall hours of operation, 0 = safe operation temperature, 1 = c...
ParameterOMT.Diagnostics.Overtemperature_Operating_Hours	0	Decimal	DINT	226-0 first DINT
ParameterOMT.Diagnostics.Overtemperature_Incident_Counter	0	Decimal	INT	226-0 second INT
ParameterOMT.Diagnostics.Maximum_Operating_Temperature	0	Decimal	SINT	226-0 Third SINT
ParameterOMT.Diagnostics.Device_Operating_Temperature	0	Decimal	SINT	226-0 Fourth SINT
ParameterOMT.Diagnostics.Minimum_Detection_Range	0	Decimal	INT	232-0 First INT
ParameterOMT.Diagnostics.Maximum_Detection_Range	0	Decimal	INT	232-0 Second INT
ParameterOMT.Diagnostics.Measurement_Value	0	Decimal	INT	236-0 First INT, Depends on sensor
ParameterOMT.Diagnostics.Signal_Quality_Indicator	0	Decimal	SINT	236-0 second SINT, 0 = insufficient, 1 = acceptable, 2 = good, 3 = excellent
ParameterOMT.Diagnostics.Switching_Signal_1	0	Decimal	SINT	236-0 third SINT
ParameterOMT.Diagnostics.Switching_Signal_2	0	Decimal	SINT	236-0 Fourth SINT
ParameterOMT.Diagnostics.Teach_In_Value	0	Decimal	INT	236-0 Fifth INT
ParameterOMT.Diagnostics.Emitter_State	0	Decimal	BOOL	238-0 bit 0, true: the emitter is disabled and object detection is not possible
ParameterOMT.Diagnostics.Local_Control_State	0	Decimal	BOOL	238-0 bit 1, true: local controls are temporary enabled for adjustment or teach-in in ...
ParameterOMT.Diagnostics.IO_Feature	0	Decimal	INT	239-0, 0=none, 1=analog pin 2, 2=second in, out pin 2, 3=second signal in, analog...
ParameterOMT.Diagnostics.Indication_Control	0	Decimal	SINT	rw, 127-0 Flashes the LEDs so you can better identify the product.
ParameterOMT.Diagnostics.Device_Operation	0	Decimal	SINT	rw, 125-0, default 0, 1 disables the emitter for diagnostic test.

Trigger Reset to Default

Resetting the sensor to default will reset all the sensor's parameters to default. Read the parameters afterward to see the default settings, then make changes as necessary.

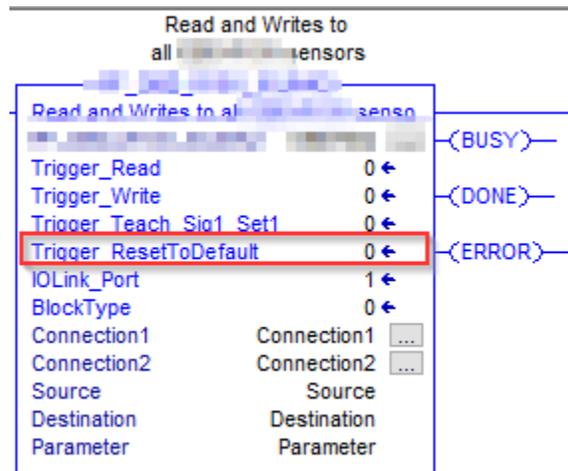


Figure 2: Trigger command to reset all parameters to default

Trigger Teach

Many of the Add-On Instructions have teach functionality. There are up to two signals and two set-points per signal. See individual instruction for availability. Place the target in front of the sensor at the desired distance and activate the specific teach signal and wait for DONE. Combine the taught signals/set-points with the required mode of operation to achieve the desired functionality. See Figure 3.

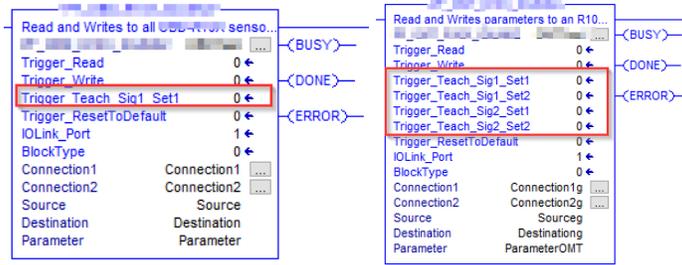


Figure 3: Trigger command to set the trigger point for signals one or two, set-point one and two

Port Number and Module Type

The port number, IOLink_Port, indicates the port to which the sensor is connected. The Pepperl+Fuchs modules have ports numbered 1–8, and the Allen-Bradley master has ports labeled 0–3 or 1–8, depending on the version.

The BlockType defines the type of IO-Link master being used.

- BlockType = 0 > ICE1 ... IO-Link masters
- BlockType = 1 > Allen-Bradley IO-Link masters
- BlockType = 2 > ICE2 ... IO-Link masters



Figure 4: IOLink_Port and BlockType configuration

Connections

These are the connection messages used to read and write the parameters. Only four parameters in each must be set. The service code will depend on the BlockType used.

- Connection 1 > Service Code 4B for BlockType 0, and 2
Service Code 4D for BlockType 1
- Connection 2 > Service Code 4C for BlockType 0, and 2
Service Code 4E for BlockType 1

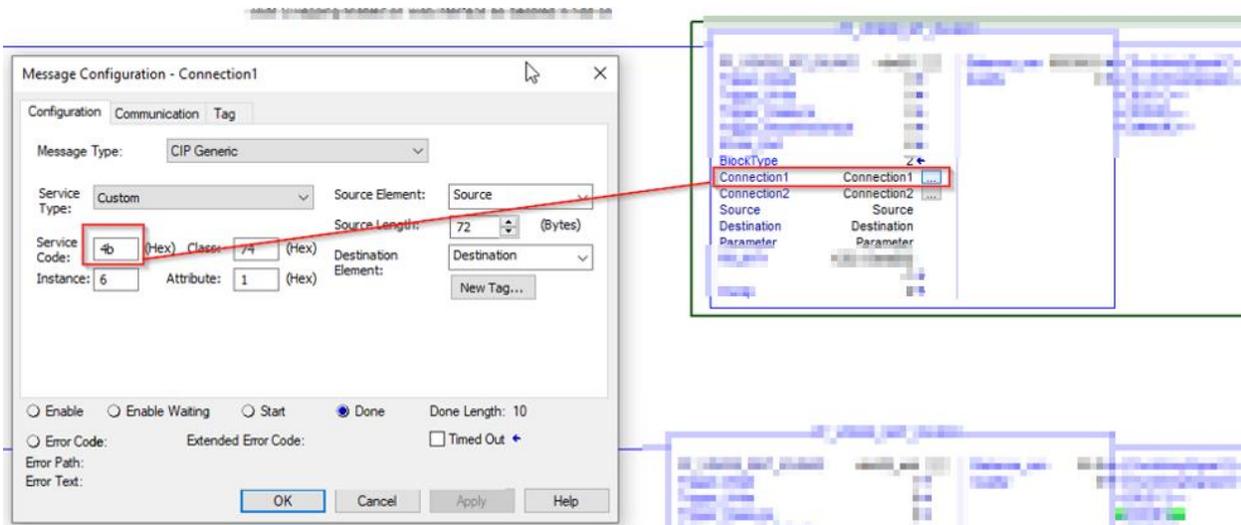


Figure 5: Connection 1 Service Code

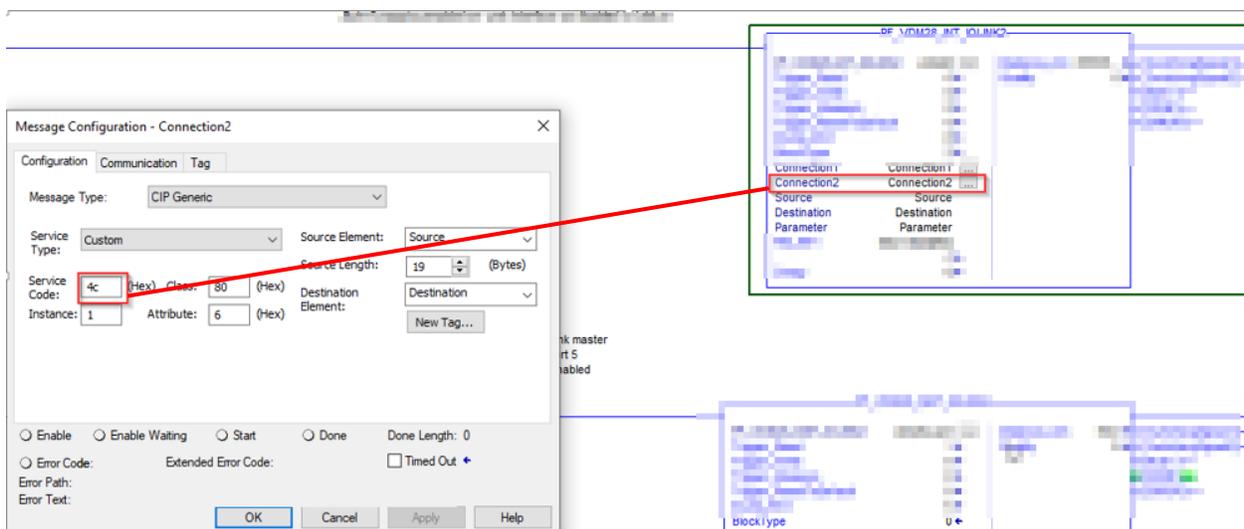


Figure 6: Connection 2 Service Code

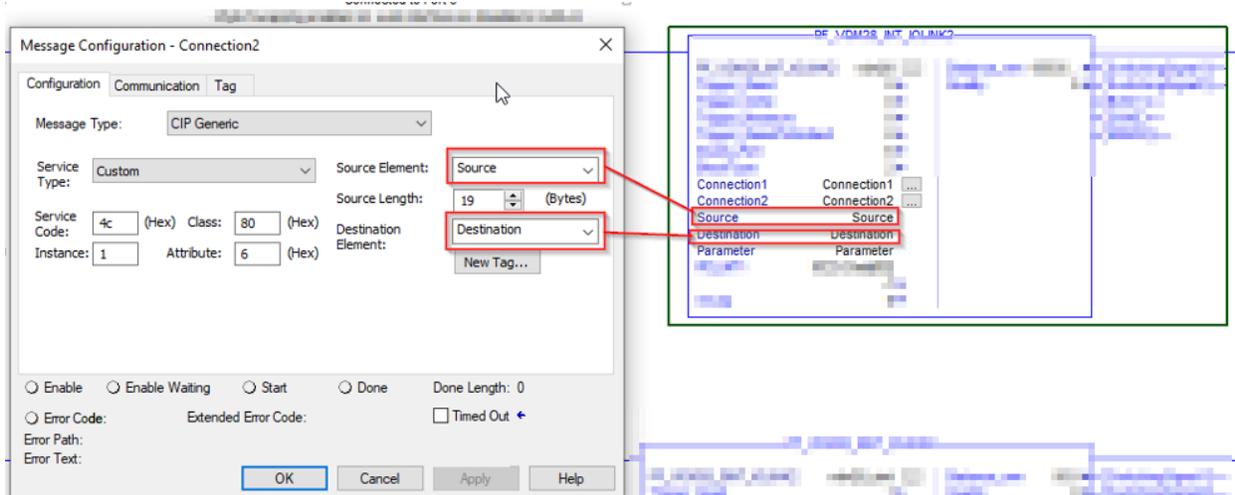


Figure 7: The source and destination variables must be of size sint[100] and must match the source and destination variables in the Add-On

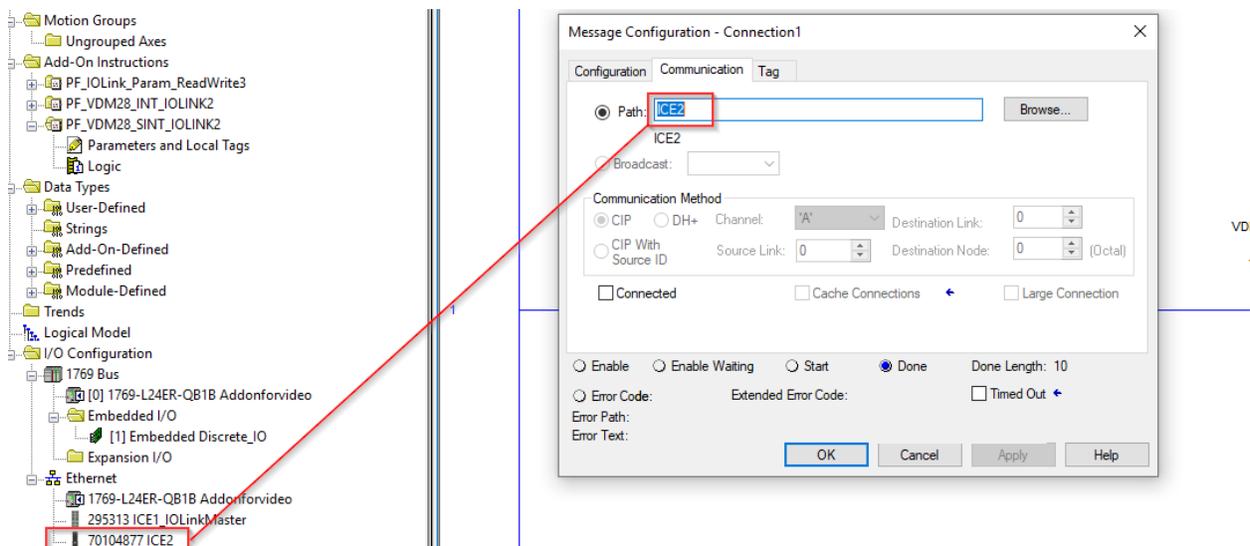


Figure 8: The path must point to the IO-Link block in both connections

PF_OMT_R10X_Process_xxx Add-On

These Add-On Instructions take the process data, which is in a SINT[] or INT[] array format, and display it in a user-friendly way.

Byte Swapping

These instructions will work with and without byte-swapped data. If the IO-Link data is coming in normally, ensure that byte swapping is enabled. If the byte swapping is being done by the IO-Link master, then make sure to disable it in the instruction. The ICE2 IO-Link master has byte swapping enabled by default. See Figure 10.

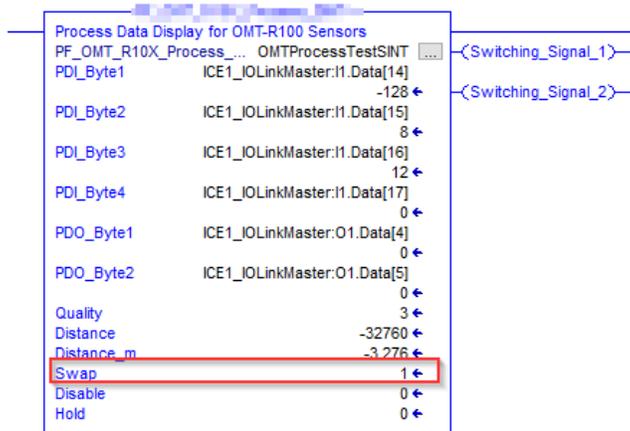


Figure 9: Byte swapping must be enabled for the ICE1 IO-Link masters

Add-On Selection

If the IO-Link master's Ethernet module is set to INT array, then use the Add-On called PF_OMT_R10X_Process_INT. See Figure 12. If the IO-Link master's Ethernet module is set to the SINT array, then use the Add-On called PF_OMT_R10X_Process_SINT. See Figure 11.

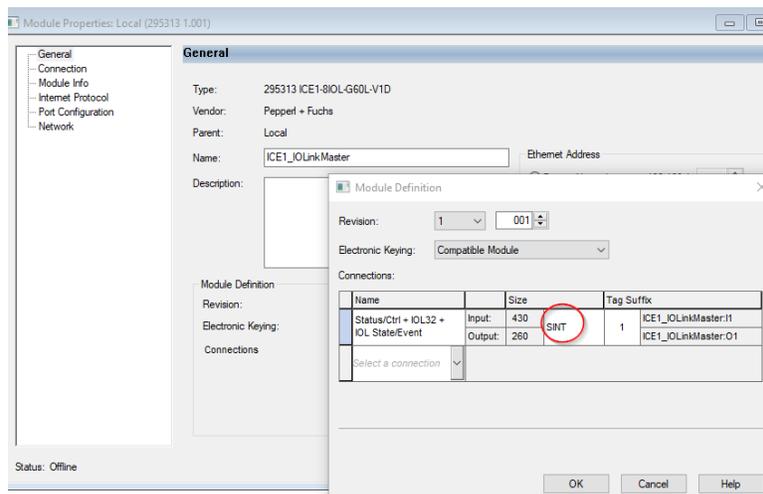


Figure 10: ICE1 IO-Link master with array size set to SINT

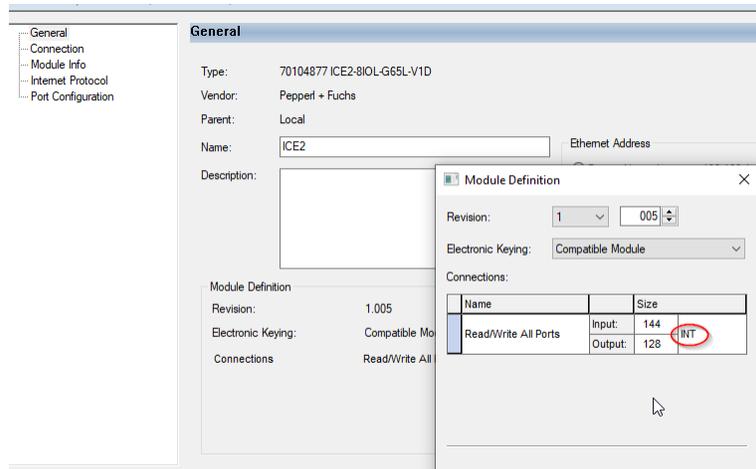


Figure 11: ICE2 IO-Link master with array size set to INT

Input and Output Data

The parameter “InputData” is used to point to the SINTs or INTs of process data, depending on which Add-On is used. (See Figure 15). Multiple PDI and PDO bytes will be required. Put in numeric order. All byte swapping will be handled automatically by the IO-Link master. Every IO-Link master will place the process data in a different place. Use tools like the [ICE1 Description Files](#) (Figure 13) or the [ICE2 Tag Description Generator](#) (Figure 14) to assist you in pointing to the correct data. The Allen-Bradley IO-Link masters typically use AOPs (Add-on Profiles), so the data is always the first SINT of the process data of that IO-Link port.

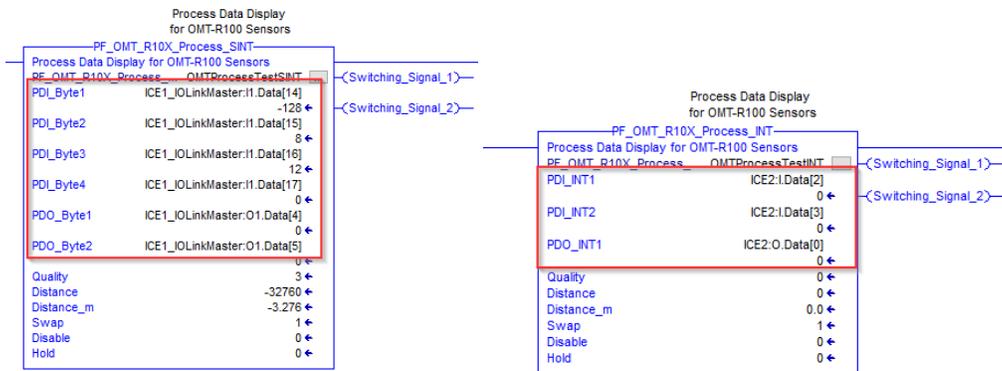


Figure 12: Pointing to the OMT Process data for the specific IO-Link port

Software: ICE1-8IOL-G60L-V1D

Drivers	Release Info	File Type	File Size
Description files for use with Ethernet/IP Protocol and RSLogix 5000 / Studio 5000 V20 or higher / Beschreibungsdateien für EtherNet/IP und RSLogix 5000 / Studio 5000	05/2019	ZIP	13620 KB

Figure 13: Description files for ICE1 ... IO-Link masters

Software: ICE2-8IOL-G65L-V1D

Software Tools	Release Info	File Type	File Size
EtherNet/IP EDS files ICE2 modules / EtherNet/IP EDS-Dateien ICE2 Module	11/2020	ZIP	33 KB
Ethernet/IP Tag Description Generator. Assists the user in visualizing the input, output, status and event data. Also can generate a CSV file for upload in to RSLogix/Studio 5000. / Software Tools_a	01/2021	ZIP	26974 KB

Figure 14: Tag generator for ICE2 ... IO-Link masters

The screenshot shows a software interface for configuring IO-Link masters. At the top, there is a diagram titled "Process Data Display for OMT-R100 Sensors" with several interconnected blocks and lines. Below this is a search bar with "Enter Name Filter..." and a "Show: All Tags" dropdown. The main part of the interface is a table with the following columns: Name, Data Type, Usage, and Description.

Name	Data Type	Usage	Description
ICE1_IOLinkMaster:I1.Data[12]	SINT		Status of IO-Link device notifications
ICE1_IOLinkMaster:I1.Data[13]	SINT		IO-Link master validation error
ICE1_IOLinkMaster:I1.Data[14]	SINT		IO-Link X1 input data Start
ICE1_IOLinkMaster:I1.Data[15]	SINT		
ICE1_IOLinkMaster:I1.Data[16]	SINT		

Below the table, there are checkboxes for "Show controller tags" and "Show MainProgram tags", both of which are checked. At the bottom, there is a dropdown menu for "How parameters from other program:" with the value "<none>" selected.

Figure 15: First SINT of process data of port 1 of ICE1

Example Using Pepperl+Fuchs IO-Link Block

See video attached to the Add-On for step-by-step instructions.