



## ISC CAM NETWORK COMMUNICATION DATA INTERFACE

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# PLC → ISC CAM / TIA PORTAL PLC TAGS

## PLC → ISC CAM / TIA PORTAL PLC TAGS

Word	Byte	Siemens	Bit	Type	Description	0 =	1 =	0 -> 1
0	1	q_NotUsed(1)	8	Bool	Unused Bit			
		q_Reserved(1)	9	Bool	Reserved - set always as 0			
		q_NotUsed(2)	10	Bool	Unused Bit			
		q_NotUsed(3)	11	Bool	Unused Bit			
		q_Infeed0Active	12	Bool	Product from infeed 0		Product at infeed lane 0	
		q_Infeed1Active	13	Bool	Product from infeed 1		Product at infeed lane 1	
		q_NotUsed(4)	14	Bool	Unused Bit			
		q_NotUsed(5)	15	Bool	Unused Bit			
	0	q_LifeBit	0	Bool	Life bit			Heart beat
		q_BeltMotorOn	1	Bool	Motor running	Motor stopped	Motor running	
		q_NotUsed(6)	2	Bool	Unused Bit			
		q_ResetFaults	3	Bool	Reset faults			Reset
		q_ResetWarnings	4	Bool	Reset warnings			Reset
		q_ResetDestCounter	5	Bool	Reset destination counter			Reset
		q_NotUsed(7)	6	Bool	Unused Bit			
q_NotUsed(8)		7	Bool	Unused Bit				
1	1	q_RunModeInternal	8	Bool	Run mode Internal	Inactive	Active	
		q_RunModeExternal	9	Bool	Run mode PLC / External	Inactive	Active	
		q_NotUsed(9)	10	Bool	Unused Bit			
		q_NotUsed(10)	11	Bool	Unused Bit			
		q_NotUsed(11)	12	Bool	Unused Bit			
		q_NotUsed(12)	13	Bool	Unused Bit			
		q_NotUsed(13)	14	Bool	Unused Bit			
		q_Reserved(2)	15	Bool	Reserved - set always as 0			
	0	q_Destination		Byte	External mode - Product destination			
	2	q_NotUsed(14)		Word	Unused word			
3	1	q_ProductsDest1		Byte	Internal mode - number of products destination 1			
	0	q_ProductsDest0		Byte	Internal mode - number of products destination 0			
4	1	q_ProductsDest3		Byte	Internal mode - number of products destination 3			
	0	q_ProductsDest2		Byte	Internal mode - number of products destination 2			
5	1	q_ProductsDest5		Byte	Internal mode - number of products destination 5			
	0	q_ProductsDest4		Byte	Internal mode - number of products destination 4			
6	1	q_NotUsed(15)		Byte	Reserved - set always as 0			
	0	q_ProductDest6		Byte	Internal mode - number of products destination 6			
7	1	q_ActiveCarrywayOverride		Byte	Override active carryway pointer	1...3		
	0	q_NotUsed(16)	0	Bool	Unused Bit			
		q_NotUsed(17)	1	Bool	Unused Bit			
		q_Carryway1LeftActive	2	Bool	Active carryway 1 enable left	Disabled	Enabled	
		q_Carryway1RightActive	3	Bool	Active carryway 1 enable right	Disabled	Enabled	
		q_Carryway2LeftActive	4	Bool	Active carryway 2 enable left	Disabled	Enabled	
		q_Carryway2RightActive	5	Bool	Active carryway 2 enable right	Disabled	Enabled	
		q_Carryway3LeftActive	6	Bool	Active carryway 3 enable left	Disabled	Enabled	
q_Carryway3RightActive	7	Bool	Active carryway 3 enable right	Disabled	Enabled			
8	1	q_NotUsed(18)	8	Bool	Unused Bit			
		q_Carryway1Override	9	Bool	Enable override active carryway 1	Override deactive	Override active	
		q_Carryway2Override	10	Bool	Enable override active carryway 2	Override deactive	Override active	
		q_Carryway3Override	11	Bool	Enable override active carryway 3	Override deactive	Override active	
		q_NotUsed(19)	12	Bool	Unused Bit			
		q_NotUsed(20)	13	Bool	Unused Bit			
		q_NotUsed(21)	14	Bool	Unused Bit			
	q_NotUsed(22)	15	Bool	Unused Bit				
	0	q_NotUsed(23)	0	Bool	Unused Bit			
		q_Carryway1Enable	1	Bool	Active carryway 1 enable	Disabled	Enabled	
		q_Carryway2Enable	2	Bool	Active carryway 2 enable	Disabled	Enabled	
		q_Carryway3Enable	3	Bool	Active carryway 3 enable	Disabled	Enabled	
		q_NotUsed(24)	4	Bool	Unused Bit			
		q_NotUsed(25)	5	Bool	Unused Bit			
		q_NotUsed(26)	6	Bool	Unused Bit			
q_NotUsed(27)	7	Bool	Unused Bit					
9	q_CarrywayValueOverride		Word	Override active carryway value				
10	q_NotUsed(28)		Word	Unused word				
11	q_NotUsed(29)		Word	Unused word				
12	1	q_ParameterRead	8	Bool	Parameter read value			Only writes on high trigger, toggle
		q_ParameterWrite	9	Bool	Parameter write value			
		q_NotUsed(30)	10	Bool	Unused Bit			
		q_NotUsed(31)	11	Bool	Unused Bit			
		q_NotUsed(32)	12	Bool	Unused Bit			
		q_NotUsed(33)	13	Bool	Unused Bit			
		q_NotUsed(34)	14	Bool	Unused Bit			
	q_NotUsed(35)	15	Bool	Unused Bit				
0	q_ParameterGroup		Byte	Parameter group number - 1, 2, 3, 6 or 7				
13	q_Parameter		Word	Parameter number				
14	q_ParameterValue		Word	Parameter value				
15	q_NotUsed(36)		Word	Unused word				

# PLC → ISC CAM / TIA PORTAL PLC TAGS

## ISC CAM → PLC / TIA PORTAL PLC TAGS

Word	Byte	Siemens	Bit	Type	Description	0 =	1 =
0	1	i_NotUsed		Byte	Unused Byte		
	0	i_LifeBit	0	Bool	Life bit		
		i_SystemReady	1	Bool	System OK	System fault	System OK
		i_BeltMoving	2	Bool	Belt moving	Belt stopped	Belt moving
		i_SystemFault	3	Bool	System fault	Fault	OK
		i_SystemWarning	4	Bool	System warning	Warning	OK
		i_SystemNextProduct	5	Bool	System ready for next product	Current gap too small	Current gap OK - ready for next
		i_ReadingBusy	6	Bool	File reading busy		
i_NotUsed(1)	7	Bool	Unused Bit				
1	1	i_EncoderFault	8	Bool	Encoder fault	Fault	OK
		i_BeltMotorSignalFault	9	Bool	Motor run signal missing	Fault	OK
		i_AirPressureFault	10	Bool	Unused bit		
		i_NotUsed(2)	11	Bool	Unused Bit		
		i_IO-LinkFault	12	Bool	IO-Link Fault	Fault	OK
		i_VoltageSupplyFault	13	Bool	Power supply voltage low	Fault	OK
		i_NotUsed(3)	14	Bool	Unused Bit		
	i_OvercurrentFault	15	Bool	Output overcurrent	Fault	OK	
	0	i_MinGapFault	0	Bool	Gap between products too small	Fault	OK
		i_InfeedJamFault	1	Bool	Infeed PE jammed	Fault	OK
		i_OutfeedJamFault	2	Bool	Unused bit		
		i_BufferFullFault	3	Bool	Product buffer full	Fault	OK
		i_PegSensorFault	4	Bool	AIM peg sensor fault	Fault	OK
		i_DestinationFault	5	Bool	Product destination signal received too late	Fault	OK
		i_NotUsed(4)	6	Bool	Unused Bit		
i_NotUsed(5)	7	Bool	Unused Bit				
2	1	i_MinBeltSpeedWarning	0	Bool	Belt speed too slow	Warning	OK
		i_MaxBeltSpeedWarning	1	Bool	Belt speed too fast	Warning	OK
		i_BeltElongationWarning	2	Bool	Belt elongation limit reached	Warning	OK
		i_MaxBeltAccelWarning	3	Bool	Belt acceleration too fast	Warning	OK
		i_MaxBeltDecelWarning	4	Bool	Belt deceleration too fast	Warning	OK
		i_NotUsed(6)	5	Bool	Unused Bit		
		i_HighUsageWarning	6	Bool	High CPU Usage	Warning	OK
	i_NotUsed(7)	7	Bool	Unused Bit			
	0	i_MinGapWarning	8	Bool	Gap between products small warning	Warning	OK
		i_InfeedJamWarning	9	Bool	Infeed PE jammed warning	Warning	OK
		i_OutfeedJamWarning	10	Bool	Unused bit	Warning	OK
		i_BufferFullWarning	11	Bool	Product buffer nearly full	Warning	OK
		i_AIMPegWarning	12	Bool	AIM damaged or missing peg	Warning	OK
		i_DestinationWarning	13	Bool	Product Destination Signal received late	Warning	OK
		i_SortWarning	14	Bool	Unused bit		
i_NotUsed(8)		15	Bool	Unused Bit			
3	1	i_NotUsed(9)		Byte	Unused Byte		
	0	i_PortC0_Pin4	0	Bool	IO 0 (C0-Pin4)	Low	High
		i_PortC0_Pin2	1	Bool	IO 1 (C0-Pin2)	Low	High
		i_PortC1_Pin4	2	Bool	IO 2 (C1-Pin4)	Low	High
		i_PortC1_Pin2	3	Bool	IO 3 (C1-Pin2)	Low	High
		i_PortC2_Pin4	4	Bool	IO 4 (C2-Pin4)	Low	High
		i_PortC2_Pin2	5	Bool	IO 5 (C2-Pin2)	Low	High
		i_PortC3_Pin4	6	Bool	IO 6 (C3-Pin4)	Low	High
i_PortC3_Pin2	7	Bool	IO 7 (C3-Pin2)	Low	High		
4	1	i_BeltSpeed		Byte	Belt speed		
	0	i_ProductsOnBelt		Byte	Number of products on belt		
5	i_Throughput		Word	Throughput			
6	1	i_NotUsed(10)		Byte	Unused byte		
	0	i_LastProductDest		Byte	Destination last product		
7	i_NotUsed(11)		Word	Unused Word			
8	i_NotUsed(12)		Word	Unused Word			
9	i_NotUsed(13)		Word	Unused Word			
10	i_NotUsed(14)		Word	Unused Word			
11	i_NotUsed(15)		Word	Unused Word			
12	0	i_ParameterRead	8	Bool	Parameter read OK	Parameter group / parameter not existing	OK
		i_ParameterWrite	9	Bool	Parameter write OK	Parameter group / parameter not existing	OK
		i_ParameterType	10	Bool	Parameter type OK	Read only / parameter doesn't exist, data not written	OK
		i_ParameterValue	11	Bool	Parameter value format OK	Incorrect format, high bytes ignored	OK
		i_NotUsed(16)	12	Bool	Unused Bit		
		i_NotUsed(17)	13	Bool	Unused Bit		
		i_NotUsed(18)	14	Bool	Unused Bit		
	i_NotUsed(19)	15	Bool	Unused Bit			
	1	i_ParameterGroup		Byte	Parameter group number - 1, 2, 3, 6 or 7		
	13	i_Parameter		Word	Parameter		
14	i_ParameterValueLSW		Word	Parameter value LSW			
15	i_ParameterValueMSW		Word	Parameter value MSW			

# PLC → ISC CAM / ROCKWELL GED

## PLC → ISC CAM / ROCKWELL GED

Word	Byte	Rockwell Generic Ethernet Device	Bit	Type	Description	0 =	1 =	0->1		
0	0	<DEVICE_NAME>:O.Data[0].0	0	Bool	Life bit	Motor stopped	Motor running	Heart beat		
		<DEVICE_NAME>:O.Data[0].1	1	Bool	Motor running					
		<DEVICE_NAME>:O.Data[0].2	2	Bool	Unused Bit					
		<DEVICE_NAME>:O.Data[0].3	3	Bool	Reset faults					
		<DEVICE_NAME>:O.Data[0].4	4	Bool	Reset warnings					
		<DEVICE_NAME>:O.Data[0].5	5	Bool	Reset destination counter					
		<DEVICE_NAME>:O.Data[0].6	6	Bool	Unused Bit					
	<DEVICE_NAME>:O.Data[0].7	7	Bool	Unused Bit						
	1	1	<DEVICE_NAME>:O.Data[0].8	8	Bool	Unused Bit		Product at infeed lane 0	Reset Reset Reset	
			<DEVICE_NAME>:O.Data[0].9	9	Bool	Reserved - set always as 0				
			<DEVICE_NAME>:O.Data[0].10	10	Bool	Unused Bit				
			<DEVICE_NAME>:O.Data[0].11	11	Bool	Unused Bit				
			<DEVICE_NAME>:O.Data[0].12	12	Bool	Product from infeed 0				
			<DEVICE_NAME>:O.Data[0].13	13	Bool	Product from infeed 1				
			<DEVICE_NAME>:O.Data[0].14	14	Bool	Unused Bit				
<DEVICE_NAME>:O.Data[0].15			15	Bool	Unused Bit					
1	1	<DEVICE_NAME>:O.Data[1].0-7		Byte	External mode - Product destination					
		<DEVICE_NAME>:O.Data[1].8	8	Bool	Run mode Internal	Inactive	Active			
		<DEVICE_NAME>:O.Data[1].9	9	Bool	Run mode PLC / External	Inactive	Active			
		<DEVICE_NAME>:O.Data[1].10	10	Bool	Unused Bit					
		<DEVICE_NAME>:O.Data[1].11	11	Bool	Unused Bit					
		<DEVICE_NAME>:O.Data[1].12	12	Bool	Unused Bit					
		<DEVICE_NAME>:O.Data[1].13	13	Bool	Unused Bit					
		<DEVICE_NAME>:O.Data[1].14	14	Bool	Unused Bit					
		<DEVICE_NAME>:O.Data[1].15	15	Bool	Reserved - set always as 0					
		2		<DEVICE_NAME>:O.Data[2]		Word	Unused word			
		3	0	<DEVICE_NAME>:O.Data[3].0-7		Byte	Internal mode - number of products destination 0			
			1	<DEVICE_NAME>:O.Data[3].8-15		Byte	Internal mode - number of products destination 1			
		4	0	<DEVICE_NAME>:O.Data[4].0-7		Byte	Internal mode - number of products destination 2			
			1	<DEVICE_NAME>:O.Data[4].8-15		Byte	Internal mode - number of products destination 3			
		5	0	<DEVICE_NAME>:O.Data[5].0-7		Byte	Internal mode - number of products destination 4			
1	<DEVICE_NAME>:O.Data[5].8-15			Byte	Internal mode - number of products destination 5					
6	0	<DEVICE_NAME>:O.Data[6].0-7		Byte	Internal mode - number of products destination 6					
	1	<DEVICE_NAME>:O.Data[6].8-15		Byte	Reserved - set always as 0					
7	0	<DEVICE_NAME>:O.Data[7].0	0	Bool	Unused Bit	Disabled	Enabled			
		<DEVICE_NAME>:O.Data[7].1	1	Bool	Unused Bit					
		<DEVICE_NAME>:O.Data[7].2	2	Bool	Active carryway 1 enable left					
		<DEVICE_NAME>:O.Data[7].3	3	Bool	Active carryway 1 enable right					
		<DEVICE_NAME>:O.Data[7].4	4	Bool	Active carryway 2 enable left					
		<DEVICE_NAME>:O.Data[7].5	5	Bool	Active carryway 2 enable right					
		<DEVICE_NAME>:O.Data[7].6	6	Bool	Active carryway 3 enable left					
	<DEVICE_NAME>:O.Data[7].7	7	Bool	Active carryway 3 enable right						
	1	<DEVICE_NAME>:O.Data[7].8-15		Byte	Override active carryway pointer	1...3				
	8	0	<DEVICE_NAME>:O.Data[8].0	0	Bool	Unused Bit	Disabled	Enabled		
<DEVICE_NAME>:O.Data[8].1			1	Bool	Active carryway 1 enable					
<DEVICE_NAME>:O.Data[8].2			2	Bool	Active carryway 2 enable					
<DEVICE_NAME>:O.Data[8].3			3	Bool	Active carryway 3 enable					
<DEVICE_NAME>:O.Data[8].4			4	Bool	Unused Bit					
<DEVICE_NAME>:O.Data[8].5			5	Bool	Unused Bit					
<DEVICE_NAME>:O.Data[8].6			6	Bool	Unused Bit					
<DEVICE_NAME>:O.Data[8].7		7	Bool	Unused Bit						
1		<DEVICE_NAME>:O.Data[8].8	8	Bool	Unused Bit	Override deactive	Override active	Override active		
		<DEVICE_NAME>:O.Data[8].9	9	Bool	Enable override active carryway 1					
		<DEVICE_NAME>:O.Data[8].10	10	Bool	Enable override active carryway 2					
		<DEVICE_NAME>:O.Data[8].11	11	Bool	Enable override active carryway 3					
		<DEVICE_NAME>:O.Data[8].12	12	Bool	Unused Bit					
		<DEVICE_NAME>:O.Data[8].13	13	Bool	Unused Bit					
		<DEVICE_NAME>:O.Data[8].14	14	Bool	Unused Bit					
	<DEVICE_NAME>:O.Data[8].15	15	Bool	Unused Bit						
9		<DEVICE_NAME>:O.Data[9]		Word	Override active carryway value					
10		<DEVICE_NAME>:O.Data[10]		Word	Unused word					
11		<DEVICE_NAME>:O.Data[11]		Word	Unused word					
12	0	<DEVICE_NAME>:O.Data[12].0-7		Byte	Parameter group number - 1, 2, 3, 6 or 7					
		<DEVICE_NAME>:O.Data[12].8	8	Bool	Parameter read value			Only writes on high trigger, toggle		
		<DEVICE_NAME>:O.Data[12].9	9	Bool	Parameter write value					
		<DEVICE_NAME>:O.Data[12].10	10	Bool	Unused Bit					
		<DEVICE_NAME>:O.Data[12].11	11	Bool	Unused Bit					
		<DEVICE_NAME>:O.Data[12].12	12	Bool	Unused Bit					
		<DEVICE_NAME>:O.Data[12].13	13	Bool	Unused Bit					
<DEVICE_NAME>:O.Data[12].14	14	Bool	Unused Bit							
<DEVICE_NAME>:O.Data[12].15	15	Bool	Unused Bit							
13		<DEVICE_NAME>:O.Data[13]		Word	Parameter number					
14		<DEVICE_NAME>:O.Data[14]		Word	Parameter value					
15		<DEVICE_NAME>:O.Data[15]		Word	Unused word					

# ISC CAM → PLC / ROCKWELL GED

## ISC CAM → PLC / ROCKWELL GED

Word	Byte	Rockwell Generic Ethernet Device	Bit	Type	Description	0 =	1 =	
0	0	<DEVICE_NAME>:I.Data[0].0	0	Bool	Life bit			
		<DEVICE_NAME>:I.Data[0].1	1	Bool	System OK	System fault	System OK	
		<DEVICE_NAME>:I.Data[0].2	2	Bool	Belt moving	Belt stopped	Belt moving	
		<DEVICE_NAME>:I.Data[0].3	3	Bool	System fault	Fault	OK	
		<DEVICE_NAME>:I.Data[0].4	4	Bool	System warning	Warning	OK	
		<DEVICE_NAME>:I.Data[0].5	5	Bool	System ready for next product	Current gap too small	Current gap OK - ready for next product	
		<DEVICE_NAME>:I.Data[0].6	6	Bool	File reading busy			
		<DEVICE_NAME>:I.Data[0].7	7	Bool	Unused Bit			
	1	<DEVICE_NAME>:I.Data[0].8-15		Byte	Unused Byte			
1	0	<DEVICE_NAME>:I.Data[1].0	0	Bool	Gap between products too small	Fault	OK	
		<DEVICE_NAME>:I.Data[1].1	1	Bool	Infeed PE jammed	Fault	OK	
		<DEVICE_NAME>:I.Data[1].2	2	Bool	Unused bit			
		<DEVICE_NAME>:I.Data[1].3	3	Bool	Product buffer full	Fault	OK	
		<DEVICE_NAME>:I.Data[1].4	4	Bool	AIM peg sensor fault	Fault	OK	
		<DEVICE_NAME>:I.Data[1].5	5	Bool	Product destination signal received too late	Fault	OK	
		<DEVICE_NAME>:I.Data[1].6	6	Bool	Unused Bit			
	<DEVICE_NAME>:I.Data[1].7	7	Bool	Unused Bit				
	1	1	<DEVICE_NAME>:I.Data[1].8	8	Bool	Encoder fault	Fault	OK
			<DEVICE_NAME>:I.Data[1].9	9	Bool	Motor run signal missing	Fault	OK
			<DEVICE_NAME>:I.Data[1].10	10	Bool	Unused bit		
			<DEVICE_NAME>:I.Data[1].11	11	Bool	Unused Bit		
			<DEVICE_NAME>:I.Data[1].12	12	Bool	IO-Link Fault	Fault	OK
			<DEVICE_NAME>:I.Data[1].13	13	Bool	Power supply voltage low	Fault	OK
			<DEVICE_NAME>:I.Data[1].14	14	Bool	Unused Bit		
<DEVICE_NAME>:I.Data[1].15			15	Bool	Output overcurrent	Fault	OK	
2	0	<DEVICE_NAME>:I.Data[2].0	0	Bool	Gap between products small warning	Warning	OK	
		<DEVICE_NAME>:I.Data[2].1	1	Bool	Infeed PE jammed warning	Warning	OK	
		<DEVICE_NAME>:I.Data[2].2	2	Bool	Unused bit	Warning	OK	
		<DEVICE_NAME>:I.Data[2].3	3	Bool	Product buffer nearly full	Warning	OK	
		<DEVICE_NAME>:I.Data[2].4	4	Bool	AIM damaged or missing peg	Warning	OK	
		<DEVICE_NAME>:I.Data[2].5	5	Bool	Product Destination Signal received late	Warning	OK	
		<DEVICE_NAME>:I.Data[2].6	6	Bool	Unused bit			
	<DEVICE_NAME>:I.Data[2].7	7	Bool	Unused Bit				
	1	1	<DEVICE_NAME>:I.Data[2].8	8	Bool	Belt speed too slow	Warning	OK
			<DEVICE_NAME>:I.Data[2].9	9	Bool	Belt speed too fast	Warning	OK
			<DEVICE_NAME>:I.Data[2].10	10	Bool	Belt elongation limit reached	Warning	OK
			<DEVICE_NAME>:I.Data[2].11	11	Bool	Belt acceleration too fast	Warning	OK
			<DEVICE_NAME>:I.Data[2].12	12	Bool	Belt deceleration too fast	Warning	OK
			<DEVICE_NAME>:I.Data[2].13	13	Bool	Unused Bit		
			<DEVICE_NAME>:I.Data[2].14	14	Bool	High CPU Usage	Warning	OK
<DEVICE_NAME>:I.Data[2].15			15	Bool	Unused Bit			
3	0	<DEVICE_NAME>:I.Data[3].0	0	Bool	IO 0 (C0-Pin4)	Low	High	
		<DEVICE_NAME>:I.Data[3].1	1	Bool	IO 1 (C0-Pin2)	Low	High	
		<DEVICE_NAME>:I.Data[3].2	2	Bool	IO 2 (C1-Pin4)	Low	High	
		<DEVICE_NAME>:I.Data[3].3	3	Bool	IO 3 (C1-Pin2)	Low	High	
		<DEVICE_NAME>:I.Data[3].4	4	Bool	IO 4 (C2-Pin4)	Low	High	
		<DEVICE_NAME>:I.Data[3].5	5	Bool	IO 5 (C2-Pin2)	Low	High	
		<DEVICE_NAME>:I.Data[3].6	6	Bool	IO 6 (C3-Pin4)	Low	High	
		<DEVICE_NAME>:I.Data[3].7	7	Bool	IO 7 (C3-Pin2)	Low	High	
	1	<DEVICE_NAME>:I.Data[3].8-15		Byte	Unused Byte			
4	0	<DEVICE_NAME>:I.Data[4].0-7		Byte	Number of products on belt			
	1	<DEVICE_NAME>:I.Data[4].8-15		Byte	Belt speed			
5		<DEVICE_NAME>:I.Data[5]		Word	Throughput			
6	0	<DEVICE_NAME>:I.Data[6].0-7		Byte	Destination last product			
	1	<DEVICE_NAME>:I.Data[6].8-15		Byte	Unused byte			
7		<DEVICE_NAME>:I.Data[7]		Word	Unused Word			
8		<DEVICE_NAME>:I.Data[8]		Word	Unused Word			
9		<DEVICE_NAME>:I.Data[9]		Word	Unused Word			
10		<DEVICE_NAME>:I.Data[10]		Word	Unused Word			
11		<DEVICE_NAME>:I.Data[11]		Word	Unused Word			
12	0	<DEVICE_NAME>:I.Data[12].0-7		Byte	Parameter group number - 1, 2, 3, 6 or 7			
	1	<DEVICE_NAME>:I.Data[12].8	8	Bool	Parameter read OK	Parameter group / parameter not existing	OK	
		<DEVICE_NAME>:I.Data[12].9	9	Bool	Parameter write OK	Parameter group / parameter not existing	OK	
		<DEVICE_NAME>:I.Data[12].10	10	Bool	Parameter type OK	Read only / parameter doesn't exist, data not writt	OK	
		<DEVICE_NAME>:I.Data[12].11	11	Bool	Parameter value format OK	Incorrect format, high bytes ignored	OK	
		<DEVICE_NAME>:I.Data[12].12	12	Bool	Unused Bit			
		<DEVICE_NAME>:I.Data[12].13	13	Bool	Unused Bit			
<DEVICE_NAME>:I.Data[12].14	14	Bool	Unused Bit					
		<DEVICE_NAME>:I.Data[12].15		Bool	Unused Bit			
13		<DEVICE_NAME>:I.Data[13]		Word	Parameter			
14		<DEVICE_NAME>:I.Data[14]		Word	Parameter value LSW			
15		<DEVICE_NAME>:I.Data[15]		Word	Parameter value MSW			

# PLC → ISC CAM / ELECTRONIC DATA SHEET

PLC → ISC CAM / Electronic Data Sheet

Word	Byte	Electronic DataSheet	Bit	Type	Description	0 =	1 =	0 -> 1	
0	0	q_LifeBit	0	Bool	Life bit	Motor stopped	Motor running	Heart beat	
		q_BeltMotorOn	1	Bool	Motor running				
		q_NotUsedBit	2	Bool	Unused Bit				
		q_ResetFaults	3	Bool	Reset faults				
		q_ResetWarnings	4	Bool	Reset warnings				
		q_ResetDestCounter	5	Bool	Reset destination counter				
		q_NotUsedBit	6	Bool	Unused Bit				
	q_NotUsedBit	7	Bool	Unused Bit					
	1	1	q_NotUsedBit	8	Bool	Unused Bit		Product at infeed lane 0 Product at infeed lane 1	
			q_Reserved	9	Bool	Reserved - set always as 0			
			q_NotUsedBit	10	Bool	Unused Bit			
			q_NotUsedBit	11	Bool	Unused Bit			
			q_Infeed0Active	12	Bool	Product from infeed 0			
			q_Infeed1Active	13	Bool	Product from infeed 1			
			q_NotUsedBit	14	Bool	Unused Bit			
q_NotUsedBit			15	Bool	Unused Bit				
1	0	q_Destination		Byte	External mode - Product destination				
		q_RunModeInternal	8	Bool	Run mode Internal	Inactive	Active		
	1	1	q_RunModeExternal	9	Bool	Run mode PLC / External	Inactive	Active	
			q_NotUsedBit	10	Bool	Unused Bit			
			q_NotUsedBit	11	Bool	Unused Bit			
			q_NotUsedBit	12	Bool	Unused Bit			
			q_NotUsedBit	13	Bool	Unused Bit			
			q_NotUsedBit	14	Bool	Unused Bit			
			q_Reserved	15	Bool	Reserved - set always as 0			
			2	q_NotUsedWord		Word	Unused word		
	3	0	q_ProductsDest0		Byte	Internal mode - number of products destination 0			
		1	q_ProductsDest1		Byte	Internal mode - number of products destination 1			
	4	0	q_ProductsDest2		Byte	Internal mode - number of products destination 2			
		1	q_ProductsDest3		Byte	Internal mode - number of products destination 3			
	5	0	q_ProductsDest4		Byte	Internal mode - number of products destination 4			
1		q_ProductsDest5		Byte	Internal mode - number of products destination 5				
6	0	q_ProductsDest6		Byte	Internal mode - number of products destination 6				
	1	q_NotUsedByte		Byte	Reserved - set always as 0				
7	0	q_NotUsedBit	0	Bool	Unused Bit	Disabled	Enabled		
		q_NotUsedBit	1	Bool	Unused Bit				
		q_Carryway1LeftActive	2	Bool	Active carryway 1 enable left				
		q_Carryway1RightActive	3	Bool	Active carryway 1 enable right				
		q_Carryway2LeftActive	4	Bool	Active carryway 2 enable left				
		q_Carryway2RightActive	5	Bool	Active carryway 2 enable right				
		q_Carryway3LeftActive	6	Bool	Active carryway 3 enable left				
	q_Carryway3RightActive	7	Bool	Active carryway 3 enable right					
	1	q_ActiveCarrywayOverride		Byte	Override active carryway pointer	1...3			
	8	0	q_NotUsedBit	0	Bool	Unused Bit	Disabled	Enabled	
q_Carryway1Enable			1	Bool	Active carryway 1 enable				
q_Carryway2Enable			2	Bool	Active carryway 2 enable				
q_Carryway3Enable			3	Bool	Active carryway 3 enable				
q_NotUsedBit			4	Bool	Unused Bit				
q_NotUsedBit			5	Bool	Unused Bit				
q_NotUsedBit			6	Bool	Unused Bit				
q_NotUsedBit		7	Bool	Unused Bit					
1		1	q_NotUsedBit	8	Bool	Unused Bit	Override deactive	Override active	Override active
			q_Carryway1Override	9	Bool	Enable override active carryway 1			
			q_Carryway2Override	10	Bool	Enable override active carryway 2			
			q_Carryway3Override	11	Bool	Enable override active carryway 3			
			q_NotUsedBit	12	Bool	Unused Bit			
			q_NotUsedBit	13	Bool	Unused Bit			
			q_NotUsedBit	14	Bool	Unused Bit			
	q_NotUsedBit		15	Bool	Unused Bit				
9	q_CarrywayValueOverride		Word	Override active carryway value					
10	q_NotUsedWord		Word	Unused word					
11	q_NotUsedWord		Word	Unused word					
12	0	q_ParameterGroup		Byte	Parameter group number - 1, 2, 3, 6 or 7				
	0	q_ParameterRead	8	Bool	Parameter read value			Only writes on high trigger, toggle	
		q_ParameterWrite	9	Bool	Parameter write value				
		q_NotUsedBit	10	Bool	Unused Bit				
		q_NotUsedBit	11	Bool	Unused Bit				
		q_NotUsedBit	12	Bool	Unused Bit				
		q_NotUsedBit	13	Bool	Unused Bit				
q_NotUsedBit	14	Bool	Unused Bit						
13	q_Parameter		Word	Parameter number					
14	q_ParameterValue		Word	Parameter value					
15	q_NotUsedWord		Word	Unused word					

# ISC CAM → PLC / ELECTRONIC DATA SHEET

## ISC CAM → PLC / ELECTRONIC DATA SHEET

Word	Byte	Electronic DataSheet	Bit	Type	Description	0 =	1 =	
0	0	i_LifeBit	0	Bool	Life bit			
		i_SystemReady	1	Bool	System OK	System fault	System OK	
		i_BeltMoving	2	Bool	Belt moving	Belt stopped	Belt moving	
		i_SystemFault	3	Bool	System fault	Fault	OK	
		i_SystemWarning	4	Bool	System warning	Warning	OK	
		i_SystemNextProduct	5	Bool	System ready for next product	Current gap too small	Current gap OK - ready for next product	
		i_ReadingBusy	6	Bool	File reading busy			
	i_NotUsedBit	7	Bool	Unused Bit				
	1	i_NotUsedByte		Byte	Unused Byte			
1	0	i_MinGapFault	0	Bool	Gap between products too small	Fault	OK	
		i_InfeedJamFault	1	Bool	Infeed PE jammed	Fault	OK	
		i_NotUsedBit	2	Bool	Unused bit			
		i_BufferFullFault	3	Bool	Product buffer full	Fault	OK	
		i_PegSensorFault	4	Bool	AIM peg sensor fault	Fault	OK	
		i_DestinationFault	5	Bool	Product destination signal received too late	Fault	OK	
		i_NotUsedBit	6	Bool	Unused Bit			
	i_NotUsedBit	7	Bool	Unused Bit				
	1	1	i_EncoderFault	8	Bool	Encoder fault	Fault	OK
			i_BeltMotorSignalFault	9	Bool	Motor run signal missing	Fault	OK
			i_NotUsedBit	10	Bool	Unused bit		
			i_NotUsedBit	11	Bool	Unused Bit		
			i_IO-LinkFault	12	Bool	IO-Link Fault	Fault	OK
			i_VoltageSupplyFault	13	Bool	Power supply voltage low	Fault	OK
			i_NotUsedBit	14	Bool	Unused Bit		
i_OvercurrentFault			15	Bool	Output overcurrent	Fault	OK	
2	0	i_MinGapWarning	0	Bool	Gap between products small warning	Warning	OK	
		i_InfeedJamWarning	1	Bool	Infeed PE jammed warning	Warning	OK	
		i_NotUsedBit	2	Bool	Unused bit	Warning	OK	
		i_BufferFullWarning	3	Bool	Product buffer nearly full	Warning	OK	
		i_AIMPegWarning	4	Bool	AIM damaged or missing peg	Warning	OK	
		i_DestinationWarning	5	Bool	Product Destination Signal received late	Warning	OK	
		i_NotUsedBit	6	Bool	Unused bit			
	i_NotUsedBit	7	Bool	Unused Bit				
	1	1	i_MinBeltSpeedWarning	8	Bool	Belt speed too slow	Warning	OK
			i_MaxBeltSpeedWarning	9	Bool	Belt speed too fast	Warning	OK
			i_BeltElongationWarning	10	Bool	Belt elongation limit reached	Warning	OK
			i_MaxBeltAccelWarning	11	Bool	Belt acceleration too fast	Warning	OK
			i_MaxBeltDecelWarning	12	Bool	Belt deceleration too fast	Warning	OK
			i_NotUsedBit	13	Bool	Unused Bit		
			i_HighUsageWarning	14	Bool	High CPU Usage	Warning	OK
i_NotUsedBit			15	Bool	Unused Bit			
3	0	i_PortC0_Pin4	0	Bool	IO 0 (C0-Pin4)	Low	High	
		i_PortC0_Pin2	1	Bool	IO 1 (C0-Pin2)	Low	High	
		i_PortC1_Pin4	2	Bool	IO 2 (C1-Pin4)	Low	High	
		i_PortC1_Pin2	3	Bool	IO 3 (C1-Pin2)	Low	High	
		i_PortC2_Pin4	4	Bool	IO 4 (C2-Pin4)	Low	High	
		i_PortC2_Pin2	5	Bool	IO 5 (C2-Pin2)	Low	High	
		i_PortC3_Pin4	6	Bool	IO 6 (C3-Pin4)	Low	High	
	i_PortC3_Pin2	7	Bool	IO 7 (C3-Pin2)	Low	High		
	1	i_NotUsedByte		Byte	Unused Byte			
4	0	i_ProductsOnBelt		Byte	Number of products on belt			
	1	i_BeltSpeed		Byte	Belt speed			
5	i_Throughput		Word	Throughput				
6	0	i_LastProductDest		Byte	Destination last product			
	1	i_NotUsedByte		Byte	Unused byte			
7	i_NotUsedWord		Word	Unused Word				
8	i_NotUsedWord		Word	Unused Word				
9	i_NotUsedWord		Word	Unused Word				
10	i_NotUsedWord		Word	Unused Word				
11	i_NotUsedWord		Word	Unused Word				
12	0	i_ParameterGroup		Byte	Parameter group number - 1, 2, 3, 6 or 7			
	1	i_ParameterRead	8	Bool	Parameter read OK	Parameter group / parameter not existing	OK	
		i_ParameterWrite	9	Bool	Parameter write OK	Parameter group / parameter not existing	OK	
		i_ParameterType	10	Bool	Parameter type OK	Read only / parameter doesn't exist, data not written	OK	
		i_ParameterValue	11	Bool	Parameter value format OK	Incorrect format, high bytes ignored	OK	
		i_NotUsedBit	12	Bool	Unused Bit			
		i_NotUsedBit	13	Bool	Unused Bit			
i_NotUsedBit	14	Bool	Unused Bit					
	15	i_NotUsedBit		Bool	Unused Bit			
13	i_Parameter		Word	Parameter				
14	i_ParameterValueLSW		Word	Parameter value LSW				
15	i_ParameterValueMSW		Word	Parameter value MSW				



# PARAMETER GROUP 1

## PARAMETER GROUP 1

PARAMETER GROUP	PARAMETER	NAME	Read	Write	Unit	Unit in vHMI	Data format	Need Unit Conversion	DESCRIPTION
Parameter group 1									
1	0	Serial Number character 0	x		ASCII	ASCII	char	No	Character of the serial number #1
1	1	Serial Number character 1	x		ASCII	ASCII	char	No	Character of the serial number #2
1	2	Serial Number character 2	x		ASCII	ASCII	char	No	Character of the serial number #3
1	3	Serial Number character 3	x		ASCII	ASCII	char	No	Character of the serial number #4
1	4	Serial Number character 4	x		ASCII	ASCII	char	No	Character of the serial number #5
1	5	Serial Number character 5	x		ASCII	ASCII	char	No	Character of the serial number #6
1	6	Serial Number character 6	x		ASCII	ASCII	char	No	Character of the serial number #7
1	7	Serial Number character 7	x		ASCII	ASCII	char	No	Character of the serial number #8
1	8	Serial Number character 8	x		ASCII	ASCII	char	No	Character of the serial number #9
1	9	Serial Number character 9	x		ASCII	ASCII	char	No	Character of the serial number #10
1	10	Serial Number character 10	x		ASCII	ASCII	char	No	Character of the serial number #11
1	11	Serial Number character 11	x		ASCII	ASCII	char	No	Character of the serial number #12
1	12	Serial Number character 12	x		ASCII	ASCII	char	No	Character of the serial number #13
1	13	Serial Number character 13	x		ASCII	ASCII	char	No	Character of the serial number #14
1	14	Serial Number character 14	x		ASCII	ASCII	char	No	Character of the serial number #15
1	15	Serial Number character 15	x		ASCII	ASCII	char	No	Character of the serial number #16
1	16	Serial Number character 16	x		ASCII	ASCII	char	No	Character of the serial number #17
1	17	Serial Number character 17	x		ASCII	ASCII	char	No	Character of the serial number #18
1	18	Serial Number character 18	x		ASCII	ASCII	char	No	Character of the serial number #19
1	19	Serial Number character 19	x		ASCII	ASCII	char	No	Character of the serial number #20
1	20	Serial Number character 20	x		ASCII	ASCII	char	No	Character of the serial number #21
1	21	Serial Number character 21	x		ASCII	ASCII	char	No	Character of the serial number #22
1	22	Serial Number character 22	x		ASCII	ASCII	char	No	Character of the serial number #23
1	23	Serial Number character 23	x		ASCII	ASCII	char	No	Character of the serial number #24
1	48	Sprocket teeth count	x		Teeth	Teeth	uint8	No	This value is used for the calculations from encoder pulses to distance, see support documentation for calculations.
1	49	Application type	x		-	-	uint8	No	1: Sorter 2: Switch
1	50	Infeed lanes	x		-	-	uint8	No	1: Single 2: Dual
1	51	Activation angle	x		deg	deg	uint8	No	Typical: 20..90 degree
1	52	PLC destination update timing warning / fault window	x		ms	ms	uint8	No	The value used to set fault/warning for product destination timing. Typical: 25..75ms
1	53	Outfeed lanes	x		-	-	uint8	No	1: Sorter 3: Switch dual 7: Switch triple
1	54	Infeed lane position primary	x		-	-	uint8	No	Primary infeed position in relation to belt direction 0: Center 1: Left 2: Right
1	55	Infeed lane position secondary	x		-	-	uint8	No	Secondary infeed position in relation to belt direction 0: Center 1: Left 2: Right
1	64	Belt type	x		-	-	uint8	No	1: S400 ARB 2: S4500 DARB 4: S4550 DARB 8: S7000 ARB 16: S7050 ARB 32: S800 AIM 64: S800 AIM GLIDE
1	70	Elongation warning	x		%*10	%	uint8	YES	% of elongation that will create warning. The value in this parameter needs to be multiplied by 10 to get to the correct value. Example: [Value in %] = Elongation warning * 10
1	72	Encoder resolution	x		PPR	PPR	uint8	No	Typical: 64PPR
1	82	Infeed PE sensor jitter timer	x		ms	ms	uint8	No	Typical: 20ms
1	96	Divert count	x		#	#	uint8	No	1..3
1	113	Run mode	x	x	-	-	uint8	No	1: Internal 2: PLC
1	114	Retain mode	x	x	-	-	uint8	No	0: Off 1: On
1	115	Gap too small action	x	x	-	-	uint8	No	1: End off 2: Attempt to divert 8: Default destination
1	117	Product train mode	x	x	-	-	uint8	No	1: Off 2: On
1	120	Default destination	x	x	#	#	uint8	No	
1	121	Reject destination	x	x	#	#	uint8	No	0..6
1	122	Gap too small destination	x	x	#	#	uint8	No	
1	124	Product Nose	x	x	pulses	pegs	uint8	YES	This value needs to be set/read in encoder pulses, see support documentation for calculations to get from pulses to distance and from distance to pulses.
1	125	Product Tail	x	x	pulses	pegs	uint8	YES	Distance (mm) = (Belt Nominal Pitch * Sprocket Teeth Count / (Encoder resolution * 2)) * Bytevalue;
1	127	Unit	x	x	-	-	uint8	No	1: metric 2: imperial
1	129	Zone count 1	x		#	#	uint8	No	
1	130	Zone count 2	x		#	#	uint8	No	Number of zones in the active carryway.
1	131	Zone count 3	x		#	#	uint8	No	
1	137	Activation delay 1	x		ms	ms	uint8	No	
1	138	Activation delay 2	x		ms	ms	uint8	No	This parameter accounts for mechanical delays from valve activation to product movement on the conveyor belt. It is set by Intralox to a default value.
1	139	Activation delay 3	x		ms	ms	uint8	No	
1	145	Deactivation delay 1	x		ms	ms	uint8	No	
1	146	Deactivation delay 2	x		ms	ms	uint8	No	This parameter accounts for mechanical delays from valve activation to product movement on the conveyor belt. It is set by Intralox to a default value.
1	147	Deactivation delay 3	x		ms	ms	uint8	No	
1	161	AIM peg sensor offset 1	x		mm	mm (inch)	uint8	No	
1	162	AIM peg sensor offset 2	x		mm	mm (inch)	uint8	No	Peg sensor offset: Peg sensor distance (mm) from Zero Position.
1	163	AIM peg sensor offset 3	x		mm	mm (inch)	uint8	No	
1	225	Activation delay override 1	x	x	ms	ms	uint8	No	This parameter accounts for mechanical delays from valve activation to product movement on the conveyor belt. This will override the default value given by Intralox. "0" will restore back to the default values provided by Intralox.
1	226	Activation delay override 2	x	x	ms	ms	uint8	No	
1	227	Activation delay override 3	x	x	ms	ms	uint8	No	
1	233	Deactivation delay override 1	x	x	ms	ms	uint8	No	This parameter accounts for mechanical delays from valve activation to product movement on the conveyor belt. This will override the default value given by Intralox. "0" will restore back to the default values provided by Intralox.
1	234	Deactivation delay override 2	x	x	ms	ms	uint8	No	
1	235	Deactivation delay override 3	x	x	ms	ms	uint8	No	
1	240	Destination count - trajectory 0	x	x	#	#	uint8	No	
1	241	Destination count - trajectory 1	x	x	#	#	uint8	No	
1	242	Destination count - trajectory 2	x	x	#	#	uint8	No	
1	243	Destination count - trajectory 3	x	x	#	#	uint8	No	
1	244	Destination count - trajectory 4	x	x	#	#	uint8	No	
1	245	Destination count - trajectory 5	x	x	#	#	uint8	No	
1	246	Destination count - trajectory 6	x	x	#	#	uint8	No	
1	247	Destination count - trajectory 7	x	x	#	#	uint8	No	
1	248	Destination count - trajectory 8	x	x	#	#	uint8	No	Internal mode - line balancing count for different trajectories
1	249	Destination count - trajectory 9	x	x	#	#	uint8	No	
1	250	Destination count - trajectory 10	x	x	#	#	uint8	No	
1	251	Destination count - trajectory 11	x	x	#	#	uint8	No	
1	252	Destination count - trajectory 12	x	x	#	#	uint8	No	
1	253	Destination count - trajectory 13	x	x	#	#	uint8	No	
1	254	Destination count - trajectory 14	x	x	#	#	uint8	No	
1	255	Destination count - trajectory 15	x	x	#	#	uint8	No	

# PARAMETER GROUP 2

## PARAMETER GROUP 2

PARAMETER GROUP	PARAMETER	NAME	Read	Write	Unit	Unit in vHMI	Data format	Need Unit Conversion	DESCRIPTION
<b>Parameter group 2</b>									
2	0	DPE length	x		pulses	mm (inch)	uint16	YES	This value is read in encoder pulses, see support documentation for calculations to get from pulses to distance.
2	1	Belt width	x		pulses	mm (inch)	uint16	YES	Distance (mm) = (Belt Nominal Pitch * Sprocket Teeth Count / (Encoder resolution * 2)) * uint16;
2	2	Belt Nominal Pitch	x		*10mm	mm (inch)	uint16	YES	This value is read in 0.1mm, Belt Nominal Pitch (mm) = uint16 * 10
2	3	Zone Width	x		pulses	mm (inch)	uint16	YES	
2	4	Product sensor position	x		pulses	mm (inch)	uint16	YES	This value is read in encoder pulses, see support documentation for calculations to get from pulses to distance.
2	5	Jam sensor position	x		pulses	mm (inch)	uint16	YES	
2	6	Gap fault size	x		pulses	mm (inch)	uint16	YES	Distance (mm) = (Belt Nominal Pitch * Sprocket Teeth Count / (Encoder resolution * 2)) * uint16;
2	7	Jam fault distance	x		pulses	mm (inch)	uint16	YES	
2	8	Min belt speed	x		pulse/sec	m/min (FPM)	uint16	YES	This value is read in encoder pulses per second, see support documentation for calculations to get from pulses to speed. See pulse/sec to m/min (FPM).
2	9	Max belt speed	x		pulse/sec	m/min (FPM)	uint16	YES	Speed (m/min) = (uint16Value * (Belt Nominal Pitch * Sprocket Teeth Count / (Encoder resolution * 2)) * 60) / 1000
2	10	Max belt acceleration	x		mm/sec <sup>2</sup>	m/s <sup>2</sup> (ft/s <sup>2</sup> )	uint16	YES	This value is read in millimeter per second <sup>2</sup> , see support documentation for calculations to get from pulses to acceleration. See mm/s <sup>2</sup> to m/s <sup>2</sup> (ft/s <sup>2</sup> ).
2	11	Max belt deceleration	x		mm/sec <sup>2</sup>	m/s <sup>2</sup> (ft/s <sup>2</sup> )	uint16	YES	acceleration (m/s <sup>2</sup> ) = uint16Value / 1000;
2	12	Encoder fault timer	x		ms	ms	uint16	No	If the belt is stopped and 2 or more products are detected within this time, an encoder fault will be triggered
2	16	Gap warning size	x	x	pulses	mm (inch)	uint16	YES	This value is set/read in encoder pulses, see support documentation for calculations to get from pulses to distance and from distance to pulses.
2	17	Jam warning distance	x	x	pulses	mm (inch)	uint16	YES	Distance (mm) = (Belt Nominal Pitch * Sprocket Teeth Count / (Encoder resolution * 2)) * uint16;
2	22	Debounce distance	x	x	pulses	mm (inch)	uint16	YES	Product features shorter than Debounce distance will be ignored by the IDL. This value is set/read in encoder pulses, see support documentation for calculations to get from pulses to distance and from distance to pulses. Distance (mm) = (Belt Nominal Pitch * Sprocket Teeth Count / (Encoder resolution * 2)) * uint16;
2	23	Artificial minimum product length	x	x	pulses	mm (inch)	uint16	YES	Allows detection of partly transparent products. This value is set/read in encoder pulses, see support documentation for calculations to get from pulses to distance and from distance to pulses. Distance (mm) = (Belt Nominal Pitch * Sprocket Teeth Count / (Encoder resolution * 2)) * uint16;
2	24	Divert Direction Enable	x	x	-	-	uint16	No	This parameter is a boolean-array where the first 8 booleans are to "Enable active carryway left/right" This is used only for bidirectional belts. If unidirectional belts are used, value should be set to 255 See support documentation for more information. Data format: 0000.0000.0000.0000..1111.1111.1111.1111
2	25	Divert Enable/Force	x	x	-	-	Word	No	This parameter is a boolean-array where the first 8 booleans are to "Enable active carryways" and last 8 booleans are to "Enable override". See support documentation for more information. Data format: 0000.0000.0000.0000..1111.1111.1111.1111
2	33	Divert area 1 - Start position	x		pulses	mm (inch)	uint16	YES	
2	34	Divert area 2 - Start position	x		pulses	mm (inch)	uint16	YES	
2	35	Divert area 3 - Start position	x		pulses	mm (inch)	uint16	YES	
2	41	Divert area 1 - Zonelength	x		pulses	mm (inch)	uint16	YES	
2	42	Divert area 2 - Zonelength	x		pulses	mm (inch)	uint16	YES	
2	43	Divert area 3 - Zonelength	x		pulses	mm (inch)	uint16	YES	This value needs to be read in encoder pulses, see support documentation for calculations to get from pulses to distance. Distance (mm) = (Belt Nominal Pitch * Sprocket Teeth Count / (Encoder resolution * 2)) * uint16;

## PARAMETER GROUP 3

PARAMETER GROUP	PARAMETER	NAME	Read	Write	Unit	Unit in vHMI	Data format	Need Unit Conversion	DESCRIPTION
<b>Parameter group 3</b>									
3	33	Valve Override value 1	x	x	-	-	Word	YES	AIM/DARB: 0: Off 1: On
3	34	Valve Override value 2	x	x	-	-	Word	YES	\$70X0: This parameter is a boolean-array where the 16 booleans represent the forced state of the valve(s). See support documentation for more information.
3	35	Valve Override value 3	x	x	-	-	Word	YES	Data format: 0000.0000.0000.0000..1111.1111.1111.1111

# PARAMETER GROUP 6

## PARAMETER GROUP 6

PARAMETER GROUP	PARAMETER	NAME	Read	Write	Unit	Unit in vHMI	Data format	Need Unit Conversion	DESCRIPTION
<b>Parameter group 6</b>									
6	0	Product counter	x		#	#	int32	No	The count is updated each time a product is detected by the infeed product sensor.
6	1	Boot counter	x		#	#	int32	No	This counter refers to the number of times the conveyor system has been started or "booted up".
6	2	Start-Stop counter	x		#	#	int32	No	This counter refers to the number of times the conveyor has started and stopped.
6	3	max belt speed	x		pulse/sec	m/min (FPM)	int32	YES	This value is read in encoder pulses per second, see support documentation for calculations to get from pulses to speed. See pulse/sec to m/min (FPM). Speed (m/min) = (int32Value * (Belt Nominal Pitch * Sprocket Teeth Count / (Encoder resolution * 2)) * 60) / 1000;
6	4	max belt acceleration	x		mm/s <sup>2</sup>	m/s <sup>2</sup> (ft/s <sup>2</sup> )	int32	YES	This value is read in millimeter per second <sup>2</sup> , see support documentation for calculations to get from pulses to acceleration. See mm/s <sup>2</sup> to m/s <sup>2</sup> (ft/s <sup>2</sup> ).
6	5	max belt deceleration	x		mm/s <sup>2</sup>	m/s <sup>2</sup> (ft/s <sup>2</sup> )	int32	YES	acceleration (m/s <sup>2</sup> ) = int32Value / 1000;
6	8	Uptime counter	x		1.024 sec	DD:HH:MM:SS	int32	YES	TotalSeconds = Math.floor(int32Value * 1.024); seconds = Math.floor(totalSeconds % 60); minutes = Math.floor((totalSeconds / 60) % 60); hours = Math.floor((totalSeconds / 3600) % 24); days = Math.floor((totalSeconds / 86400)); Time = days + hours + minutes + seconds
6	9	Runtime counter	x		1.024 sec	DD:HH:MM:SS	int32	YES	
6	10	Belt travel distance counter	x		256 pulses	KM (Miles)	int32	YES	Distance (KM)= ((int32Value * (Belt Nominal Pitch * Sprocket Teeth Count / (Encoder resolution * 2)) * 256) / 1000000)
6	11	Warning counter	x		#	#	int32	No	This count is updated each time a warning is triggered.
6	12	Fault counter	x		#	#	int32	No	This count is updated each time a fault is triggered.
6	13	Gap fault counter	x		#	#	int32	No	This count is updated each time a gap fault is triggered.
6	14	Jam fault counter	x		#	#	int32	No	This count is updated each time a jam fault is triggered. Infeed photo-eye jam & jam sensor faults are combined.
6	15	Product buffer fault counter	x		#	#	int32	No	This count is updated each time a product buffer fault is triggered.
6	17	Activation counter divert 1	x		#	#	int32	No	
6	18	Activation counter divert 2	x		#	#	int32	No	This count is updated each time an active carryway activated.
6	19	Activation counter divert 3	x		#	#	int32	No	
6	32	Fault / warning history 0	x		-	-	DWord	No	This parameter is a boolean-array where the first 16 booleans are faults and last 16 booleans are warning. See support documentation for more information. Data range: 0000.0000.0000.0000.0000.0000.0000.0000..1111.1111.1111.1111.1111.1111.1111.1111.1111
6	33	Fault / warning history 1	x		-	-	DWord	No	
6	34	Fault / warning history 2	x		-	-	DWord	No	
6	35	Fault / warning history 3	x		-	-	DWord	No	
6	36	Fault / warning history 4	x		-	-	DWord	No	
6	37	Fault / warning history 5	x		-	-	DWord	No	
6	38	Fault / warning history 6	x		-	-	DWord	No	
6	39	Fault / warning history 7	x		-	-	DWord	No	
6	40	Fault / warning history 8	x		-	-	DWord	No	
6	41	Fault / warning history 9	x		-	-	DWord	No	
6	42	Fault / warning history 10	x		-	-	DWord	No	
6	43	Fault / warning history 11	x		-	-	DWord	No	
6	44	Fault / warning history 12	x		-	-	DWord	No	
6	45	Fault / warning history 13	x		-	-	DWord	No	
6	46	Fault / warning history 14	x		-	-	DWord	No	
6	47	Fault / warning history 15	x		-	-	DWord	No	

## PARAMETER GROUP 7

PARAMETER GROUP	PARAMETER	NAME	Read	Write	Unit	Unit in vHMI	Data format	Need Unit Conversion	DESCRIPTION
<b>Parameter group 7</b>									
7	0	Belt elongation value	x	x	%*10000	%	int32	YES	(Beltelongation factor / 10.000) - 1 * 100% (UPDATE TO ACTUAL PITCH VALUE)
7	1	Recipe ID number	x	x	#	#	int32	No	Active recipe number for applications with trajectories