TROUBLESHOOTING

ISC CAM V1.0

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Certain Intralox products are made of plastic and can burn. If exposed to an open flame or to temperatures above Intralox specifications, these products may decompose and emit toxic fumes. Do not expose Intralox conveyor belting to extreme temperatures or open flame. Flame retardant belt products are available in some series.

Prior to installing, aligning, cleaning, lubricating, or performing maintenance on any conveyor belt, sprocket or system, consult the federal, state, and local regulations in your area regarding the control of hazardous/stored energy (lockout/tagout).

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APPLICATION ISSUES

Access Virtual HMI for detail diagnostics of ISC CAM

PRODUCT TRANSFERRING OUT TOO EARLY/TOO LATE

ROOT CAUSE	ACTION
Activation of divert area is too late because of different friction factor between product and belt roller - Wear blet activation system (belt roller, popup/rack&roll, cylinder, etc) -	Adjust Intralox activation position using ISC CAM Virtual HMI by - Trailing edge activation - Centre activation - Applying a divert position offset
Activation of divert area is too early because of different friction factor between product and belt roller	Adjust Intralox activation position using ISC CAM Virtual HMI by - Leading edge activation - Centre activation - Applying a divert position offset -
Activation zones do not complete movement	Check air pressure and check whether the machine is cleaned Using ISC CAM virtual HMI ensure the sideway motion limit is set correctly

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PRODUCT SKEWING

ROOT CAUSE	ACTION
Products are skewed when transferring onto the Intralox conveyor	Minimize product skewing at the infeed of the Intralox conveyor
Incorrect transfers set up (height, etc.)	Adjust transfers
Different belt speeds of Intralox conveyor and its infeed and outfeed conveyors	Belt speeds should be identical
Activation zones do not complete movement	Air pressure
ISC specific root cause? Defective encoder?	Ensure the divert position settings are correct

PRODUCT NOT DIVERTED

ROOT CAUSE	ACTION
PLC is not sending the ‘divert command’ to the ISC timely and in the correct format.	Ensure PLC sends correct information timely
Gap between products is smaller than the minimum gap specified for this application (Appendix B and ISC Virtual HMI). If the gap between 2 products is too short, the ISC	Increase product gap

sends the 2nd product to the same destination given to the 1st one.	
No/low air pressure	Increase air pressure to minimum level
ISC does not receive sensor signals	Verify encoder, PE status on the virtual HMI of the ISC. If shown as defective - Check LED's on ISC - Check cable connections - Replace components
Defective actuation system (valve, cylinder)	Replace faulty components

LED DISPLAYS

The device has the following LED indicators:

- Power supply
- Group and bus errors
- Status
- Diagnostics

PWR LED	Meaning
Off	No voltage or undervoltage at V1
Green	Voltage at V1 and V2 ok
Red	No voltage or undervoltage at V2

LED BUS	Meaning
Off	No voltage connected
Green	Active connection to a masterFlashing
green 3x in 2s ISC	
Red	IP address conflict, Restore mode active, F_Reset active or Modbusconnection timeout
Red flashing	Wink command active
Red/green (1 Hz)	Autonegotiation and/or waiting for DHCP-/BootP-address assignment

LED ERR	Meaning
Off	No voltage connected
Green	No diagnostics
Red	Diagnostic message pending

LEDs ETH1 and ETH2	Meaning
Off	No Ethernet connection
Green	Ethernet connection established, 100 MbpsGreen
flashing	Ethernet traffic, 100 Mbps
Yellow	Ethernet connection established, 10 MbpsYellow
flashing	Ethernet traffic, 10 Mbps

LED IOL 0, 2, 4, 6 (IO-Link port)	Meaning (Channel in IO-Link mode)
Off	Port inactive, no IO-Link communication, diagnostics deactivatedGreen
flashing	IO-Link communication, process data valid
Red flashing	IO-Link communication active and module error, invalid process data
Red	IO-Link supply error free, no IO-Link communication and/ or moduleerror, process data invalid

LED IOL 0, 2, 4, 6 (IO-Link port)	Meaning (channel in SIO mode (DI))
Off	No input signal
Green	Digital input signal active

LED DXP 1, 3, 5, 7	Meaning (input)	Meaning (output)
Off	Input not active	Output not active
Green	Input active	Output active (max. 2 A)
Red	–	Output active with overload/short circuit

ERR DXP 7	Meaning
White flashing	Wink command active

FAULTS TO PLC

Fault	Root cause	Action
Line controller PLC indicated the drive motor is running, but the encoder does not detect motion	Encoder broken Encoder cable disconnected	Replace encoder Connect encoder cable
Line controller PLC indicates the drive motor is off, but the encoder detects belt motion	Wrong timing in setting up communication Line PLC – ISC?	Ensure the signal is send timely
Belt detected to move too slow (and not stopped)	Belt moving slower that allowed MIN belt speed,	risk of product stranding at transfers increase belt speed to min level
Belt detected to move too fast	Belt moving faster that allowed max belt speed, risk of mechanical damage of machinery	Risk of product diverting incorrectly Decrease belt speed
Status of photoeye Product Sensor 1	Sensor block	Remove product/debris Replace encoder Connect encoder cable
Status of photoeye Product Sensor 2 (Optional)	Not Applicable	Not Applicable
Status of photoeye Product Sensor 3 (Optional)	Not Applicable	Not Applicable
Peg sensor blocked continuously with belt moving	Peg sensor has a debris or the AIM activation block is obstructed	Open belt and make visual inspection of peg sensor, cylinder and pug&carryway
Peg not seen while expected	Only applicable for AIM technology Broken peg	Find and replace belt module with new module
Gap for next product	Gap too short	Ensure product gapping is per specification
Too much or too low voltage from power supply	Power supply faulty	Adjust / replace power supply
Too much or too little current draw	Indicates short or cable disconnected)	Replace broken cable / sensor
IO-Link error port C0	Broken IO-link device Loose or damaged communication cable	Replace IO-Link device Reconnect / replace IO-Link cable
IO-Link error port C1	Broken IO-link device Loose or damaged communication cable	Replace IO-Link device Reconnect / replace IO-Link cable
IO-Link error port C2	Broken IO-link device Loose or damaged communication cable	Replace IO-Link device Reconnect / replace IO-Link cable
IO-Link error port C3	Broken IO-link device Loose or damaged communication cable	Replace IO-Link device Reconnect / replace IO-Link cable