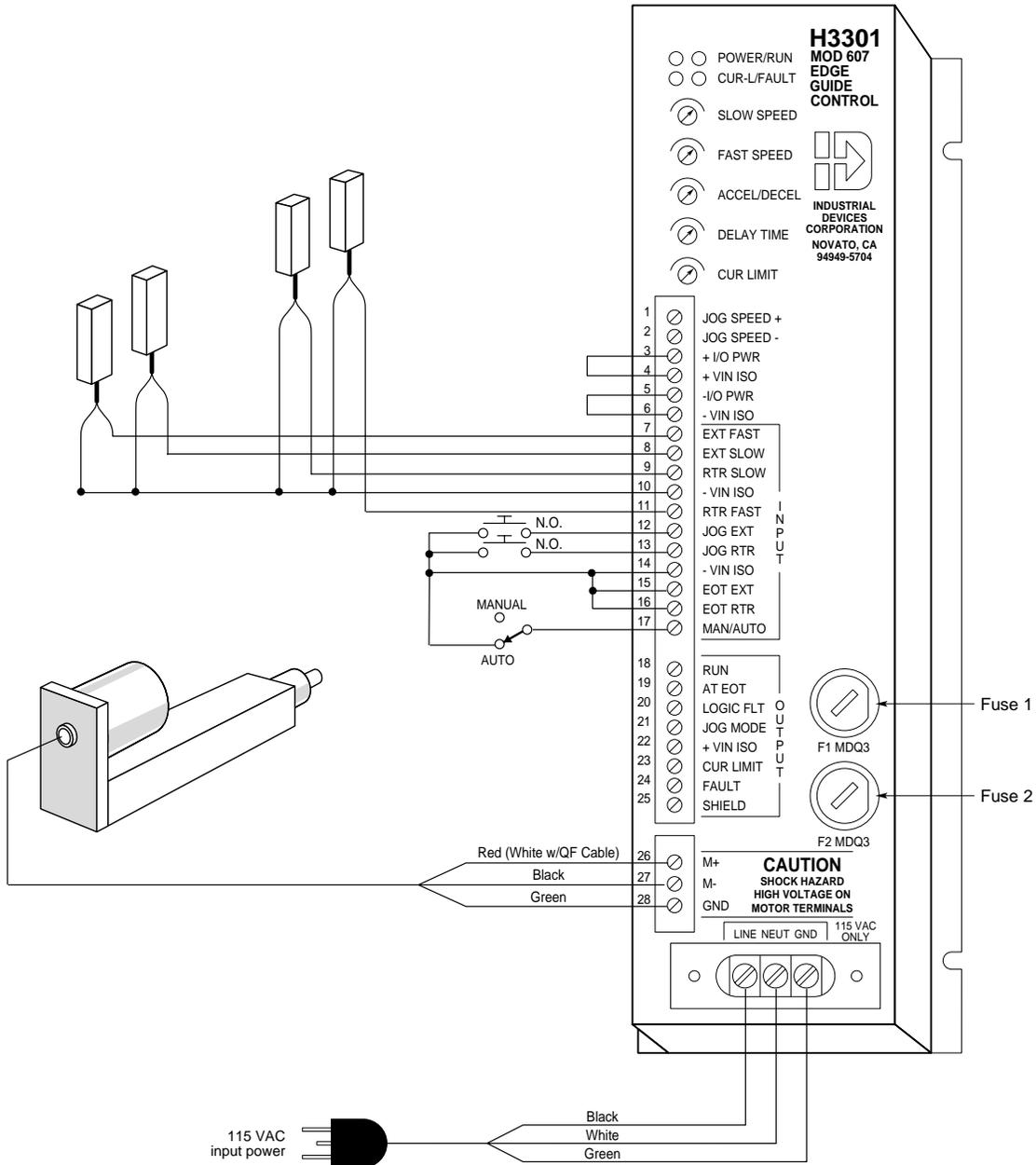


H3301 MOD607

Edge Guide Control

P/N PCW 4764 Rev 1.1 2/96
 (Supplement to H3301 Manual PCW-4351)



**INDUSTRIAL
 DEVICES
 CORPORATION**





Product Description

The H3301 Modification 607 Edge Guide Control is designed to be used with an IDC N series linear actuator and 2 or 4 web sensors positioned together at one edge of the web. “Mod. 607” is a variation of the standard H3301 limit switch control, providing the ability to connect edge sensors directly to the motor controller, eliminating the need for a PLC to generate the extend/retract and speed signals. The control centers the web by monitoring the sensor input status and moving the actuator as needed to maintain center. The actuator typically moves the spool or steering roll to maintain this centered position. When operated in *automatic mode*, the control will extend and retract the actuator in response to the sensor inputs. In *manual mode*, JOG inputs are used to manually adjust web position.

I/O Reference

LED's

POWER

Indicates line voltage is present and correct and internal power supplies are operating.

RUN

Indicates power is being supplied to the motor.

CURRENT LIMIT

Indicates a current limit has been reached, (as set by the current limit potentiometer), and the power has been removed from the motor. After a two second delay the drive will automatically reset.

FAULT

Indicates a fault has occurred. The fault description is determined by the

Fault LED flash code:

- One Blink = Control Overtemperature
- Two Blinks = Motor/Drive Short Circuit
- Three Blinks = Over Voltage (Regen.)

Potentiometers

SLOW SPEED

(PREVIOUSLY LABELED *1ST SPEED*)

Sets slow speed, (from 0-50% of maximum speed) when correcting a web alignment between the inner two sensors.

FAST SPEED

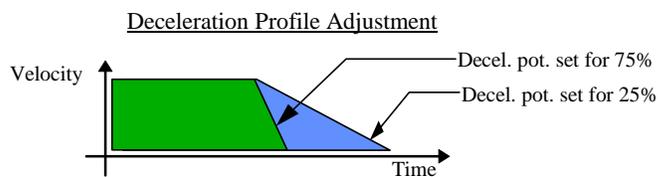
(PREVIOUSLY LABELED *2ND SPEED*)

Sets fast speed, (from 0-100% of maximum speed) when correcting a web alignment between the outer two sensors.

ACCELERATION / DECELERATION

(PREVIOUSLY LABELED *ACCEL*)

Sets the ramp rate for all moves when going from a higher speed to a lower speed or stop. A lower setting will cause a long acceleration and deceleration ramp. A high setting will cause a short acceleration/deceleration ramp.



DELAY TIME

(PREVIOUSLY LABELED *DECEL*)

Sets the amount of time the unit will wait before correcting an error in the web. Typically this setting is used to prevent the system from hunting or reacting to a frayed edge or small cut in the web.

CURRENT LIMIT

Sets the maximum allowable current that is available to the motor. Typically used to detect a jam or mechanical malfunction in the system.

Jog Speed

JOG SPEED + / JOG SPEED -

(PREVIOUSLY LABELED *REMOTE SPEED*)

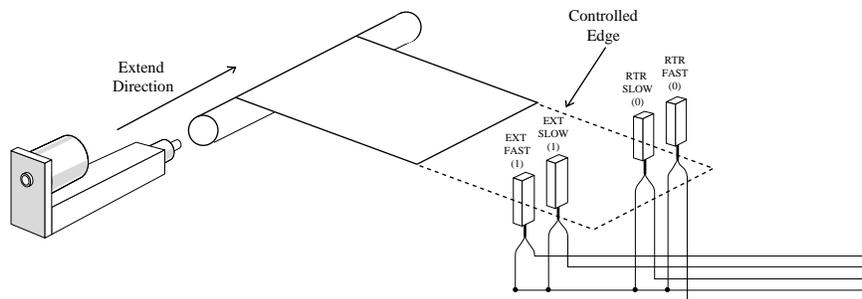
Allows external speed adjustment when **JOG EXT** or **JOG RTR** inputs are used (*Manual Mode only*).

10K Potentiometer Connected

The JOG SPEED analog input allows external adjustment of jog speed.

No Potentiometer Connected

The actuator will jog at the **Slow Speed** if no external potentiometer is present.



Digital Input Descriptions

All of the inputs are optically isolated sinking inputs that normally are pulled up to 12VDC internally. Activation is accomplished by connecting the input to common (labeled -VIN ISO), thus sinking the 12VDC and activating the internal photocoupled LED. Inputs must be active for at least 10ms to be recognized.

EXTEND FAST

(PREVIOUSLY LABELED *GO EXT*)

2-Sensor System: Input is connected to the outermost sensor, (not covered when the web is aligned in the proper position). See the sensor truth table for operation.

4-Sensor System: This connection should be left open.

EXTEND SLOW

(PREVIOUSLY LABELED *GO RTR*)

Input is connected to the outer sensor, (not covered when the web is aligned in the proper position). See the sensor truth table for operation.

RETRACT SLOW

(PREVIOUSLY LABELED *STOP EXT*)

Input is connected to the inner sensor, (covered when the web is aligned in the proper position). See the sensor truth table for operation

RETRACT FAST

(PREVIOUSLY LABELED *STOP RTR*)

2-Sensor System: Input is connected to the innermost sensor, (covered when the web is aligned in the proper position). See the sensor truth table for operation.
4-Sensor System: This input should be jumpered to -VIN ISO.

TRUTH TABLE: Web Sensor Inputs

Input Terminal Status				Action
EXT FAST	EXT SLOW	RTR SLOW	RTR FAST	
0	0	0	0	Extend: Fast
1	0	0	0	Extend: Slow
1	1	0	0	No Motion
1	1	1	0	Retract: Slow
1	1	1	1	Retract: Fast

Legend: 0 = sensor OFF (light beam visible: >10 Volts)
 1 = sensor ON (light beam blocked: 0 Volts)

Notes: 1) All other combinations of Input Terminal Status result in "Logic Fault", indicated by Logic Fault output terminal turning on. 2) "Extend" is CCW motor rotation.

JOG EXTEND / JOG RETRACT

(PREVIOUSLY LABELED *EXT SPEED*)

When control is in **Manual Mode**, these inputs jog the actuator in the direction specified. Jog speed is set by the **Slow Speed** input or the **Jog Speed** remote input. (see previous page, "Jog Speed").

EOT EXTEND/ EOT RETRACT INPUT

Activation of the EOT inputs causes the cylinder to decelerate at maximum rate to a stop. Afterward, no motion will be allowed past the EOT switch encountered.

MAN / AUTO

(PREVIOUSLY LABELED *RUN / JOG*)

Selects automatic (web sensor) control, and manual jog mode.

Automatic Mode

(**MAN/AUTO** connected to **-VIN ISO**)

Control responds to web sensors through Extend and Retract inputs as shown in the Truth Table above. Jog inputs are ignored.

Manual Mode

(**MAN/AUTO** terminal not connected)

Control responds to JOG EXT and JOG RTR inputs. Web sensor inputs are ignored.



Output Descriptions

RUN OUTPUT

- ON: Motor is receiving current
- OFF: No current going to motor

AT EOT OUTPUT

- ON: No end of travel switches are activated.
- OFF: An end of travel has been activated.

LOGIC FAULT

(PREVIOUSLY LABELED AT EXT)

- ON: The web sensors have been activated in a manner that indicates a fault condition. For example; miswiring, a broken sensor, dirty lens, or a loose wire could cause this fault.

- OFF: No logic faults.

JOG MODE

(PREVIOUSLY LABELED AT RTR)

- ON: The unit is operating in the Jog Mode. Web sensors are ignored in this state.
- OFF: The unit is operating in the run mode. The control will move the actuator until the **Retract Fast** and **Retract Slow** inputs are activated and the **Extend Fast** and **Extend Slow** outputs are deactivated.

CURRENT LIMIT

- ON: The Current Limit has been exceeded, and motor is stopped. In some applications where there are high inertial loads, this output may turn on indicating a longer acceleration or more powerful actuator may be needed.
- OFF: Motor operating at "safe" current level (below the CUR LIMIT pot. setting).

Fault Output

- ON: Drive OK
- OFF: Drive fault, check Fault LED flashing code for cause.



INDUSTRIAL DEVICES CORPORATION

64 Digital Drive • Novato, CA USA 94949-5704
(800) 747-0064 • FAX (415) 883-2094
OUTSIDE THE U.S. CALL (415) 883-3535
