

Stuga Machine IO Dictionary - Inputs

List of input references used on Stuga Machines

Contents

Inverting Inputs

Comments

For output references see here

- All Stuga machines share similar inputs to do similar functions (eg the start button is the same on any machine). To keep this modular approach, each function is given a specific reference number from 1 to 500. This reference or IORef is the same on any machine.
- This number is used as the wire labelling number on newer machines (all Autoflows and ZX5s)
- To maintain backwards compatibility with older machines (Saws, Flowlines, Ecolines, etc, there is also a cross-reference to the original cable numbering.
- More information on a particular input can be found by clicking on the code, if external link is set (blue text)

IO Ref	Legacy Wire Label	Code	Description
1		InA_GripOff	Gripper in released position
2		InA_Measure1	Moving Offcut measure Sensor 1 - On Autoflow Arm
3		InA_Measure2	Moving Offcut measure Sensor 2 - On Autoflow Arm
4		InA_GZHome	Gripper Z axis home sensor
5		InA_GZLimitF	Gripper Z axis positive limit [Not Used]
6		InA_GZLimitR	Gripper Z axis negative limit [Not Used]
7	X08	InA_GYHome	Gripper Y axis home sensor
8		InA_GYLimitF	Gripper Y axis positive limit [Not Used]
9		InA_GYLimitR	Gripper Y axis negative limit [Not Used]
10	X00	InA_GXHome	Gripper X axis home sensor
11	X01	InA_GXLimitF	Gripper X axis positive limit [Not Used]
12		InA_GXLimitR	Gripper X axis negative limit [Not Used]
13		InA_IPos0On	Popup Infeed table - paddle 0 active (closest to backfence)
14		InA_IPos1On	Popup Infeed table - paddle 1 active
15		InA_IPos2On	Popup Infeed table - paddle 2 active
16		InA_IPos3On	Popup Infeed table - paddle 3 active
17		InA_IPos4On	Popup Infeed table - paddle 4 active
18		InA_IPos5On	Popup Infeed table - paddle 5 active
19		InA_IPos6On	Popup Infeed table - paddle 6 active
20		InA_IPos7On	Popup Infeed table - paddle 7 active (Closest to operator)
21		InA_CrankFwd	Popup infeed table crank motor in forward position
22		InA_IPos0Off	Popup Infeed table - paddle 0 inactive (closest to backfence) [Not Used]
23		InA_IPos1Off	Popup Infeed table - paddle 1 inactive [Not Used]
24		InA_IPos2Off	Popup Infeed table - paddle 2 inactive [Not Used]
25		InA_IPos3Off	Popup Infeed table - paddle 3 inactive [Not Used]
26		InA_IPos4Off	Popup Infeed table - paddle 4 inactive [Not Used]

27		InA_IPos5Off	Popup Infeed table - paddle 5 inactive [Not Used]
28		InA_IPos6Off	Popup Infeed table - paddle 6 inactive [Not Used]
29		InA_IPos7Off	Popup Infeed table - paddle 7 inactive (Closest to operator) [Not Used]
30		InA_CrankHm	Popup infeed table crank motor in home position
31	X35	InA_MatLoaded1	
32		InA_MatLoaded2	
33		InA_Index	Sturtz Infeed Conveyor Stop
34		InA_ClampITHm	
35		InA_VCUOk	
36		InA_Bus415Ok	
37		InA_Bus415SOk	
38		InA_InvInfeedOk	
39		InA_ServGXOk	
40		InA_ServGYOk	
41		InA_24vBusOk	
42		InA_24vModOk	
43	X22	InA_AirOk	
44	X33	InA_Grip	
44		In_GRIPS	
45		InA_Estop	
45	X16	In_ESTOP	
46		InA_StartButton	
46	X23	In_START	MH Start Button
47		InA_StopButton	
47		In_STOP	MH Stop Button
48		InA_ResetButton	
48	X24	In_ESRST	MH ES Reset Button
49	X17	InA_Estop1Pressed	
50	X02	InB_YHome	
51	X03	InB_YLimitF	
52		InB_YLimitR	
53	X04	InB_ZHome	
54		InB_ZLimitF	
55		InB_ZLimitR	
56	X06	InB_RHome	
57		InB_RLimitF	
58		InB_RLimitR	
59		InB_ClampOTHm	
60		InB_ClampOTPos	
61		InB_ClampOSHm	
62		InB_ClampOSPos	
63		InB_ClampITHm	
64		InB_ClampITPos	
65		InB_ClampISHm	
66		InB_ClampISPos	
67		InB_Spin1Hm	
68		InB_Spin2Hm	
69		InB_Spin3Hm	
70		InB_Spin4Hm	
71		InB_Spin5Hm	
72		InB_Spin6Hm	

73		InB_Spin7Hm	
74		InB_Spin8Hm	
75		InB_Spin1Ou	
76		InB_Spin2Ou	
77		InB_Spin3Ou	
78		InB_Spin4Ou	
79		InB_Spin5Ou	
80		InB_Spin6Ou	
81		InB_Spin7Ou	
82		InB_Spin8Ou	
83		InB_Spin1DPOu	
84		InB_Spin6DPOu	
85		InB_Spin1DPHm	
86		InB_Spin6DPHm	
87		InB_ServYOk	
88		InB_ServZOk	
89		InB_ServROk	
90	X27	InB_InvSpinOk	Inverter OK input - High when Inverter is OK
91		InB_24vModOk	
92	X20	InB_GuardFront	
93	X21	InB_GuardRear	
94		InB_Spin1DPOu DPTO1	
95		InB_Spin2DPOu	
96		InB_Spin3DPOu	
97		InB_Spin4DPOu	
98		InB_Spin5DPOu DPTO5	
99		InB_Spin6DPOu	
100		InB_Spin7DPOu	
101		InB_Spin8DPOu	
102		InB_DPHm1 DPHM1	
103		InB_DPHm2	
104		InB_DPHm3 DPHM3	
105		InB_DPHm4	
106		InB_DPHm5 DPHM5	
107		InB_DPHm6	
108		InB_DPHm7 DPHM7	
109		InB_DPHm8	
110		InB_Lubricator	Auto Lubricator on Autoflow Module B
111		InB_CIVTHm	Clamp V Notch Top Home
112		InB_CIVSHm	Clamp V Notch Side Home
113		InA_FullLen1	Full Length sensor 1 on main infeed
114		InA_FullLen2	Full Length sensor 2 on main infeed
115		InE_FullLen1	Full Length sensor 1 on saw infeed
116		InE_FullLen2	Full Length sensor 2 on saw infeed
117		InA_ESRearMid	Estop button on rear of machine (estimated to be halfway down the length)

118		InB_ESCabinet	Estop button on cabinet door
119		InF_ESRear	Saw Rear Estop Button
120		InF_SYHome	
121		InF_SYLimitF	
122		InF_SYLimitR	
123		InF_SZHome	
124		InF_SZLimitF	
125		InF_SZLimitR	
126		InF_SRHome	
127		InF_SRLimitF	
128		InF_SRLimitR	
129		InC_ESRearMid	Estop button on rear of module c (estimated halfway down the length of frame)
130		InC_ESRearEnd	Estop button on rear of module c towards extraction end
131		InA_ESRearEnd	Estop button on rear of Module A
134	X14	InF_EjPushHm	
135		InF_EjPushOu	
136		InF_ClampOTHm	
137		InF_ClampOSHm	
138		InF_ClampITHm	
139		InF_ClampISHm	
140		InF_RollerITHm	
141		InF_EjectHm	
142		InF_EjectOu	
143		InF_AdvanceBut InF_ConvAFwd	Soenen Conveyor A Fwd
144		InF_OutfeedFull	
145	X145	InF_OutfeedIndex InF_OutIx	Sturtz Outfeed conveyor stop
146	X146	InF_OutBrake	Sturtz Outfeed conveyor brake
148		InF_Tilt1	
149		InF_Tilt2	
150		InF_InvSawOk	
151		InF_InvExtractOk	
152		InF_ConvOvIOk	
153		InF_MatIOvIOk InF_ConvXBok	
154		InF_ConvTempOk	
155		InF_ClampITPos	
156		InF_TiltHome	
157		InF_TiltSawOn	
158		InF_JXDatum	JX Axis (Eject servo) Datum
159			
160		InA_AutoCycleButton	
160		In_AUTO	MH Auto Button
161		InA_MatIAtFence	
162		InG_EstopA	Soenen Outfeed System Estop Button A
163		InG_EstopB	Soenen Outfeed System Estop Button B
164		InG_EstopC	Soenen Outfeed System Estop Button C
165		InA_StopSensor	InE_StopSensor on ZX5 Sturtz Infeed Paddle Stop Up
166		InA_ButLoad	

167		InC_GrippedMax	
168		InE_GrippedMax	
169			
170		InF_GuardFr	
171		InF_GuardTop	
172		InF_ServSZOk	
173		InF_ServSROk	
174		InF_ESRear	
175		InA_48vOk	
176		InB_24vBusOk	
177		InB_VNotchOk	
178		InF_48vOk	
179		InF_24vBusOk	
180		InF_24vModOk	
181		InA_GripTurnHm	
182		InA_GripTurnOu	
183		InA_EDLoaded	
184		InA_EDCoverOpen	
185		InA_EDPlungeHm	
186		InA_EDPlungeOu	
187		InA_EDStartBut	
188		InA_EDInverterOk	
189		InF_GtOpen	Outfeed Safety Gate Closed
190	X19	InF_GtClosed	Outfeed Safety Gate Open. Ecoline - Slide Door
191		InF_Saw45	
192		InF_Saw90	
193		InF_EjOutfeedHm	Second Stage Eject Home (Autoflow Mk4)
194		InF_EjOutfeedOu	Second Stage Eject Out (Autoflow Mk4)
195		InF_ESSawFront	Estop button on front of Sawing centre
196		InF_SawGuard	
197		InF_Saw135	
198		InF_SYHome2	
199		InF_SZHome2	
201		InA_AutoSaw	
202		InF_ClampPadHm	Static Clamp Pad Home (Autoflow Mk4)
203		InF_CentHome	
204		InA_StopSaw	
205		InA_StartSaw	
206		InF_EsRstSaw	
207		InF_ExtrButt	
208		InF_SawCutHm	
209		InF_SawCutOut	
210		InF_ZIA	Z Turret Infeed A Input
211		InF_ZOA	Z Turret Outfeed A Input
212		InF_ZIC	Z Turret Infeed C Input
213		InF_ZOC	Z Turret Outfed C Input
214		InF_ZIHome	Z Turret Infeed Home Input
215		InF_ZOHome	Z Turret Outfeed Home Input
216		InF_LowerEjHm	Lower eject system home Autoflow Mk4
217		InF_LowerEjOu	Lower eject system out Autoflow Mk4
218		InA_AccessDoor	Bruhl gate opened on Sturtz Infeed AFMk4

219		InG_AccessDoor	Bruhl gate opened in Outfeed area AFMk4	
220		InF_ZIB	Z Turret Infeed B Input	
221		InF_ZOB	Z Turret Outfeed B Input	
222		InG_ESButton	Sturtz Outfeed Estop Button	
223	X18	InA_ButEStop5	Ecoline - Conveyor Button	
225		InE_SXHome		
225		InA_DatumSaw		
226		InE_MatLoaded	Profile in Saw Loading Channel	
227		InD_ExtGate1	Extraction Gate 1 Open	
228		InD_ExtGate2	Extraction Gate 2 Open	
230		InE_TrPos1	Nearest Saw side	
231		InE_TrPos2		
232		InE_TrPos3		
233		InE_TrPos4		
234		InE_TrPos5		
235		InE_TrPos6		
236		InE_TrPosEnd	Nerest MH side	
237		InD_CrankO		
237		InE_CrankFwd		
238		InD_CrankH		
238		InE_CrankHome		
239		InE_TrLiftUp		
240		InE_TrLiftDown		
241		InE_TrLiftIn		
242		InE_TrLiftOut		
243		InE_TranOvl		
244		InE_InfeedGate		
244		In_LightGuard		
245		InE_XferOn		
246	X07	InE_Laser		
247		InB_Vsafe	Sensor for ZX5 V notch assembly safe position (Y and Z position clear of beam)	
248		InE_MatPopup	Profile present in Saw side loader	
249		InE_ESRearMid	Estop button on rear of saw infeed (estimated halfway down the frame)	
250		InE_ESRearEnd	Estop button on rear of saw infeed (extraction end)	
251		InA_VorBack	Sturtz Infeed Forward Carriage Back (Vorlaufwagen)	
252		InA_VorFwd	Sturtz Infeed Forward Carriage Fwd	
253		InA_VorUp	Sturtz Infeed Forward Carriage Clamp Up	
254		InA_VorDn	Sturtz Infeed Forward Carriage Clamp Down	
255		InA_GSGrip	Sturtz Infeed Grip Profile Short Grip (Shorter of the two cylinders)	
256		InA_GSOFF	Sturtz Infeed Grip Profile Short Open	
257		InA_GLGrip	Sturtz Infeed Grip Profile Long Grip (longer of the two cylinders) Input Ref 001 is used for the off sensor longer one as mimics grip released)	
258		InA_Turn0	Sturtz Infeed Grip Turn Cylinder (0degrees)	
259		InF_EjectHml	Autoflow Mk4 Infeed Side Eject Home (back to back cylinder)	
260		InF_EjectOul	Autoflow Mk4 Infeed Side Eject Out (back to back cylinder)	
261				
262		InA_StopDn	Sturtz Infeed Paddle Stop Down	
263		InA_GRTRotated	Sturtz Infeed Guide Roller Turn Cylinder Rotated	
264		InA_GRTOpen	Sturtz Infeed Guide Roller Turn Cylinder Initial	
265		InA_GRHClamped	Sturtz Infeed Guide Roller Height Cylinder Clamped	
266		InA_GRHOpen	Sturtz Infeed Guide Roller Height Cylinder Open	

267		InA_Turn90	Sturtz Infeed Grip Turn Cylinder Down (90 degrees)
268		InA_NextBarOut	
269		InF_SawCutOutMid	
270		InA_MatPos1 InA_MatPos1A	Module A Material in Position 1 Sturtz Infeed 1st Place A
271		InA_MatPos2 InA_MatPos1B	Module A Material in Position 2 Sturtz Infeed 1st Place B (closest to backfence)
272		InA_MatPos3 InA_MatPos7A	Module A Material in Position 3 Sturtz Infeed 7th Place A
273		InA_MatPos4 InA_MatPos7B	Module A Material in Position 4 Sturtz Infeed 7th Place B (closest to backfence)
274		InA_MatPos5 InA_MatPos8A	Module A Material in Position 5 Sturtz Infeed 8th Place A
275		InA_MatPos6 InA_MatPos8B	Module A Material in Position 6 Sturtz Infeed 8th Place B (closest to backfence)
276		InA_MatPosE	Module A Material in Position 7
277		InA_CrankO	Module A Crank Out
278		InA_CrankH	Module A Crank Home
279		InA_CrankOvl	Module A Crank Overload
280		InA_ModClear	Module A Loading Channel Clear
281		InA_LoadBut	Module A Material Load button
282		InA_Resume	Module A Resume Sequence Button
283		InC_GripHH	Datum Drill Overload
285		InC_CrankOvl	Module C Crank Overload
286		InC_CrankO	Module C Crank Out
287		InC_CrankH	Module C Crank Home
288		InE_CrankOvl	
289		InC_BeamPosH	Sensor used to detect when beam is home and safe
290		InC_BeamPosO	Sensor used to detect when beam is closest to ring
291		InE_GripHH	Module E Grip Height Home
292	X292	InF_LiftUp	Sturtz Outfeed Lift Station Up
293	X293	InF_LiftDn	Sturtz Outfeed Lift Station Down
294		InE_GripSw	Module E Grip Switch
297		InE_CrankO	Module E Crank Out
298		InE_CrankH	Module E Crank Home
299		InE_CrankOvl	Module E Crank Overload
300		InF_Resume	Module F Resume Sequence Button
302		InA_DDrillH	Datum Drill Out
302		InA_WheelH	Module A Wheel Height Home
301		InA_DDrillO	Datum Drill Home
303		InA_ChanHome	Module A Channel Home
304		InA_GripHH	Module C Grip Height Home
304		In_GUARD	Guard input on Mk3 Flowline
305		In_MCSW2	
306		InA_Preload	Module A Preload position
307		InE_ChanHm	Module E Channel Home
308		InB_InvZero	Output from Yaskawa inverter to confirm spindle has decelerated
309		InB_InvTemp	Thermistor on Yaskawa dump resistor for thermal overload
310		In_CFEED	Used on Mk3 - similar to CHAIN but needs to be different
311		In_LOADD	Material Loaded Sensor
312	X12	In_Xok	Added by BB - not Required on TwinCAT
313	X100	In_Yok	Added by BB - not Required on TwinCAT

314	X101	In_Zok	Added by BB - not Required on TwinCAT
315	X102	In_Rok	Added by BB - not Required on TwinCAT
316	X09	In_Gok	Added by BB - not Required on TwinCAT
317		In_SXok	Added by BB
318	X11	In_Vok	Added by GG for Ecoline - not Required on TwinCAT
321		In_ESBUT1	Or saw front Estop button on ZX3/4 Allinone
324		In_TRTA	
326		InA_ConvOvl	Infeed conveyor overload
327	X45	In_LLEN	Longlength sensor on Mk3
328	X40	In_EJHM	Eject Push Home 1
329		In_TOOLO	Tool Out sensor on Flowline Mk3
330	X34	In_OBEAM	Ecoline Outfeed Beam
331		In_OUTFC	
332		In_OCUT1	
333		In_OCUT2	
334		In_OCUT3	
335		In_OCUT4	
336		In_OCUT5	
337		In_OCUT6	
338		In_OCUT7	
339		In_OCUT8	
340	X42	In_EJOU	Eject Push Out (1)
341	X26	In_VOVL	V Notch overload
342	X342	InB_InvOK	Alternative inverter OK input (ZX5)
343		In_IPLH	
344	X32	In_IPLLO	
345		In_CHAIN	Chain Sensor
346		InB_GuardFrI	Guard doors on ZX5 (no TwinSAFE)
347		InB_GuardFrO	Guard doors on ZX5 (no TwinSAFE)
348		InB_GuardRel	Guard doors on ZX5 (no TwinSAFE)
349		InB_GuardReO	Guard doors on ZX5 (no TwinSAFE)
350		InD_GuardTT	Guard Doors on transfer Table
351		InF_ESConsBut	
352	X48	In_SIHH	Microline Saw Clamp Infeed Horizontal Home
353	X49	In_SOHH	Microline Saw Clamp Outfeed Horizontal Home
354	X354	InF_AAPickUp	Applicator Pick up sensor (Label Applicator)
355	X355	InF_AAPickDn	Applicator Pick down sensor (Label Applicator)
356	X356	InF_AAPlaceHm	Applicator Place printer position sensor (Label Applicator)
357	X357	InF_AAPlaceOu	Applicator Place profile position sensor (Label Applicator)
358	X358	InF_AATiltHm	Applicator straight sensor (Label Applicator)
359	X359	InF_AATiltOu	Applicator angled sensor (Label Applicator)
360	X360	InF_AALblPosA	Applicator turret sensor A (Label Applicator)
361	X361	InF_AALblPosB	Applicator turret sensor B (Label Applicator)
362	X362	InF_AALblPosC	Applicator turret sensor C (Label Applicator)
363	X363	InF_AAPickPrf	Applicator Pick "on profile" position sensor
364	X364	InF_AALblSense	Label sensor on printer to see if a peel-off label is present
367	X15	In_CLIPH	Microline Saw Clamp Infeed Positioner Home
368	X16	In_CLOPH	Microline Saw Clamp Outfeed Positioner Home
369	X45	In_CutFailSafe	Microline Saw Cut Fail Safe
373		InB_SP3R1On	Spindle 3 Control Relay 1 Active

374		InB_SP3R2On	Spindle 3 Control Relay 2 Active
375		InB_SP7R1On	Spindle 7 Control Relay 1 Active
376		InB_SP7R2On	Spindle 7 Control Relay 2 Active
377	X37	In_EJHM2 InF_EjPushHmB	Eject Push Home 2
378	X44	In_EJOU2 InF_EjPushOuB	Eject Push Out 2
380	X15	In_CLVSI	V Clamp Infeed Side Home Ecoline
381	X13	In_CLVSO	V Clamp Outfeed Side Home Ecoline
382	X25	In_SpOVL	Spindle overload relay
383	X39	In_VTrnDn	Ecoline Front V turn Down
384	X40	In_VTrnUp	Ecoline Front V turn up
385	X43	In_WTrnDn	Ecoline Rear V turn Down
386	X44	In_WTrnUp	Ecoline Rear V turn up
387	X47	In_Length	Ecoline Bar end sensor (not used)
388	X388	InA_ConvBrk	Sturtz Infeed Conveyor Braking Sensor - Position to stop for index pulse
389	X389	InA_PtB1Hm	Sturtz Infeed Push To Backfence 1 Open
390	X390	InA_PtB2Hm	Sturtz Infeed Push To Backfence 2 Open
391	X391	InA_PtB3Hm	Sturtz Infeed Push To Backfence 3 Open
392	X392	InA_PtB4Hm	Sturtz Infeed Push To Backfence 4 Open
393	X393	InA_PtB5Hm	Sturtz Infeed Push To Backfence 5 Open
394	X394	InA_PtB6Hm	Sturtz Infeed Push To Backfence 6 Open
395	X395	InA_PtB7Hm	Sturtz Infeed Push To Backfence 7 Open
396	X396	InA_LiftUp	Sturtz Infeed Roller Lift Up
397	X397	InA_LiftDn	Sturtz Infeed Roller Lift Dn
398	X398	InA_StopDn	Sturtz Infeed Paddle Stop Down
399	X399	InF_PrFPosA	Soenen Outfeed Profile At Eject Pos A
400	X400	InF_PrFPosB	Soenen Outfeed Profile At Eject Pos B
401	X401	InF_ConvXAOk	Soenen Outfeed Direction X Position A Conveyor Ok (Overload)
402	X402	InF_ConvYAOk	Soenen Outfeed Direction X Position B Conveyor Ok (Running)
403	X403	InF_ConvYBOk	Soenen Outfeed Direction Y Position B Conveyor Ok (Running)
404	X404	InG_ConvRunning	Sturtz Outfeed Profile Conveyor Running
405		SPTO1	Tool Out Sensor on ZX
406		SPTO2	
407		SPTO3	
408		SPTO4	
409		SPTO5	
410		SPTO6	
411		SPTO7	
412		SPTO8	
413		SPHM1	Tool Home Sensor on ZX
414		SPHM2	
415		SPHM3	
416		SPHM4	
417		SPHM5	
418		SPHM6	
419		SPHM7	
420		SPHM8	
421		DPTO3	Double Plunge out Sensor on ZX
422		DPTO7	
423		In_VIURH2	

424		In_VOURH2	
425		In_CLOIH	
426		In_CLOOH	
427	X427	InF_CLHOpen	Sturtz Outfeed Horizontal Clamp Open
428	X428	InF_MatPos1A	Sturtz Outfeed Material At Operator A
429	X429	InF_MatPos1B	Sturtz Outfeed Material At Operator B
430	X430	InF_MatPos7A	Sturtz Outfeed Material In Pos Rear A
431	X431	InF_MatPos7B	Sturtz Outfeed Material In Pos Rear B
432			
433	X433	InF_ConvARev	Soenen Conveyor A Rev Button
434	X434	InF_ConvBFwd	Soenen Conveyor B Fwd Button
435	X435	InF_ConvARev	Soenen Conveyor B Rev Button
436	X436	InF_FullA2	Soenen Conveyor A Full #2
437	X437	InF_FullB1	Soenen Conveyor B Full #1
438	X438	InF_FullB2	Soenen Conveyor B Full #2
439			
440	X440	In_GripHlxA	Grip Height Index A (Gripper Variable Height Upgrade)
441	X441	In_GripHlxB	Grip Height Index B (Gripper Variable Height Upgrade)
442	X442	In_GripHlxC	Grip Height Index C (Gripper Variable Height Upgrade)
443	X443	InF_Saw0Speed	Input through zero speed detector for saw blade (Zero Speed Safe Input)
444	X444	InB_VOSpeed	Input through zero speed detector for v notch blades (Safe State)
448	X448	InB_UnlockSignal	Input after zero speed in MH to show unlock signal is high
449		InC_RrSlideGrd	Rear Sliding Door on Ecoline
450		In_WOVL	
451	X10	In_DATV	
452		In_DATW	
453		In_WICTH	
453	X42	InB_WCutUp	Ecoline Rear V Notch Up
454		In_WICTO	
454	X41	InB_WCutDn	Ecoline Rear V Notch Down
455		In_WOCTH	
456		In_WOCTO	
457		In_VIURH1	
458		In_VOURH1	
459	X38	InB_VCutUp	
460	X37	InB_VCutDn	
461		InA_TeethIn	ModuleA Teeth Located OK
462		InC_TeethIn	ModuleC Teeth Located OK
463		InE_TeethIn	ModuleE Teeth Located OK
464		InA_WheelOvl	Infeed Wheel Overload
465		InA_Beam1	Infeed Safety Beam 1
466		InA_Beam2	Infeed Safety Beam 2
467		InA_WheelRun	Infeed Wheel Running
468		InA_ConvRun	Infeed Conveyor Running
469		InF_Beam1	Saw Outfeed Safety Beam 1
470		InF_Beam2	Saw Outfeed Safety Beam 2
471		InC_SlowX	Slowdown Input for Drive X (Direct input to drive)
472		InE_SlowSX	Slowdown Input for Drive SX (Direct input to drive)
473		InC_EjectFlap	Input for Eject Safety Flap on Ecoline
474		InG_ConvRun	Input for Outfeed Conveyor Running
476		InB_SP1R1On	Spindle 1 Control Relay 1 Active

477		InB_SP1R2On	Spindle 1 Control Relay 2 Active	
478		InB_SP2R1On	Spindle 2 Control Relay 1 Active	
479		InB_SP2R2On	Spindle 2 Control Relay 2 Active	
480		InB_SP4R1On	Spindle 4 Control Relay 1 Active	
481		InB_SP4R2On	Spindle 4 Control Relay 2 Active	
482		InB_SP5R1On	Spindle 5 Control Relay 1 Active	
483		InB_SP5R2On	Spindle 5 Control Relay 2 Active	
484		InB_SP6R1On	Spindle 6 Control Relay 1 Active	
485		InB_SP6R2On	Spindle 6 Control Relay 2 Active	
486		InB_SP8R1On	Spindle 8 Control Relay 1 Active	
487		InB_SP8R2On	Spindle 8 Control Relay 2 Active	
488		In_TLBRK		
489		InB_SpTemp SPTH1	Spindle Thermal Sensor	
490		SPTH2		
491		SPTH3		
492		SPTH4		
493		SPTH5		
494		SPTH6		
495		SPTH7		
496		SPTH8		

Inverting Inputs

From TC3 versions 6.6000 onwards, an input can be "Inverted". This feature allows in input to work in reverse if required
See Technical Bulletin - Inverting Inputs