

-:Table (4-2) Shows Process groups I/O Description

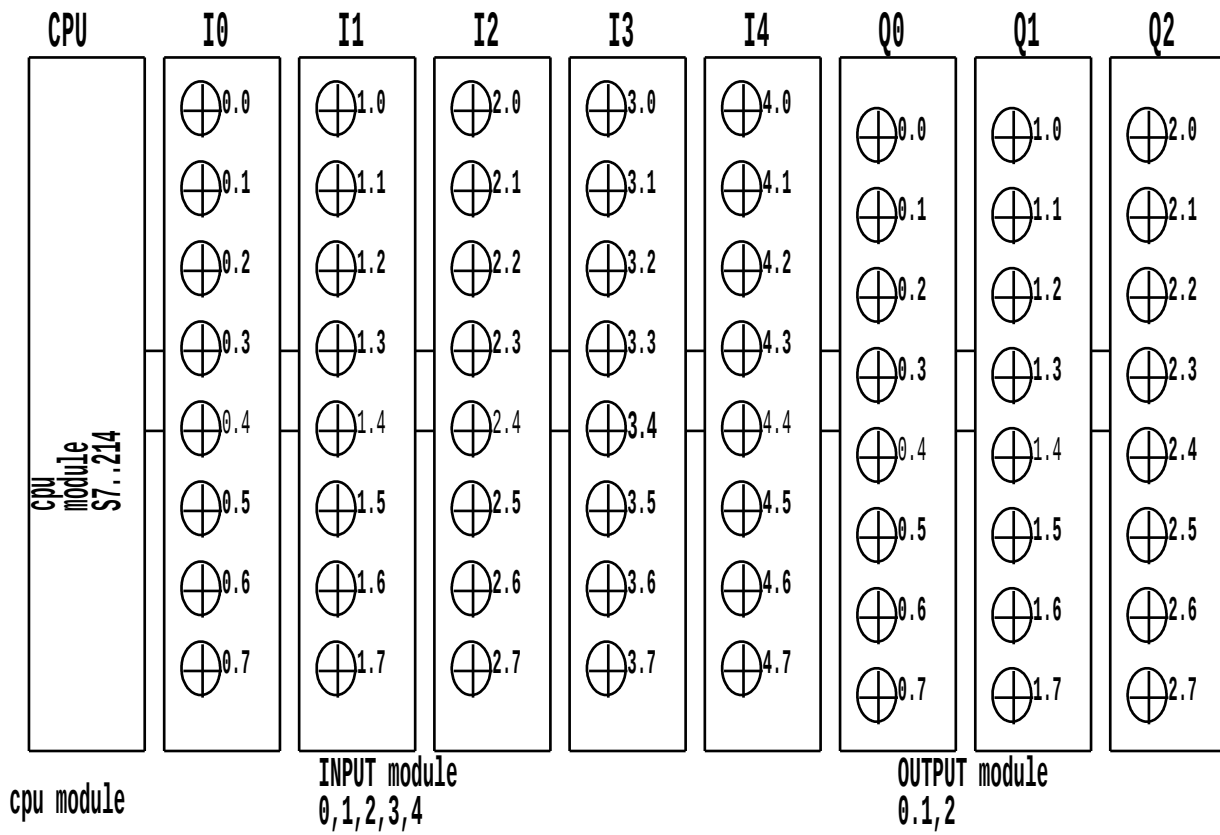
Symbol	Descriptions	Address	I/O STATUS
SB1/EM	SB1+THEMAL PROTECTON	I0.0	NC
SB3	SB3= START HYD	I0.1	NO
SB2	SB2= STOP HYD	I0.2	NC
SB5	SPINDLE START	I0.3	NO
SB4	SPINDLE STOP	I0.4	NC
SB7	START COOLING	I0.5	NO
SB6	STOP COOLING	I0.6	NC
SB8	CYCLE ON	I0.7	NO
K13	CAR. DRAWING TOGETHER	I1.0	NO
SA10-1	AUTO SELECT SWITCH	I1.0	NO/K7
SA10-2	MANUEL SELECT SWITCH	I1.1	NO/K8
SA11-1	QUILL UP SELECT SWITCH	I1.2	NO
SA11-1	DOWN WARDS SELECT SWITCH	I1.3	NO
SA12-1	CARRIAGES DRAWING TOGETHER-ON	I1.4	NO
SA12-2	CARRIAGES DRAWING TOGETHER-OF	I1.5	NO
SA14-1	S.SWITCH-LOADING-IN	I1.6	NO
SA14-2	S.SWITCH-LOADING-OUT	I1.7	NO
SA13-1	SLIDE UPS.SWITCH	I2.0	NO
SA13-2	SLIDE DOWN S.SWITCH	I2.1	NO
SA15-1	PRESPIN OF ROLL	I2.2	NO
SA15-2	ROLLS MOVEMENT	I2.3	NO

















Symbol	Descriptions	Address	I/O STATUS
SB9	CYCLE ON	I2.4	NO
SQ1	INITIAL POSTION OF QUILL	I3.0	NO
SP	UPPER POSTION OF QUILL	I3.1	NO
SQ3+SQ5	INITIALPOS OF CARRIAGES	I3.2	NO
Symbol	Descriptions	Address	I/O STATUS
SQ4+SQ6	WORK POSITION OF CARRAGES	I3.3	NO
SQ7	INITIALPOS OF SLIDE	I3.4	NO
SQ8	UPPER POS OF SLIDE	I3.5	NO
SQ9	.INITIALPOS. OF LOADING DEV	I3.6	NO
SQ10	LOADING DEV. ON CENTRE	I3.7	NO
SQ11	.PRESENCE OF BLANK OF L.DEV	I4.0	NO
SQ12	Curtain control w.p removal	I4.1	NO
SQ13	WORK PC REMOVAL	I4.2	NO
SQ14	CASING OF RALLOS SPINNING	I4.3	NO
(K1)	HYDRAULIC STATION	Q0.0	NO/ KM1+HL2
K2	SPINDLE MOTOR ON	`Q0.1	NO/KM2+HL3
(K3)	COOLING PUMP MOTOR	Q0.2	NO/KM3+HL4
(K24)	LOADIG DEVICE S.VALVE	Q0.4	NO/YA1+HL5
(K23)	SPINNING OF ROLLS	Q0.5	NO/ YA10+HL6
(K11)	QUILL UP WARD S.VALVE	Q0.6	YA2+HL7
K12	QUILL DOWN WARD S.VALVE	Q0.7	YA3/HL8
YA4	CARRIAGES DRAWING TOGETHER	Q1.0	NO/ K13+HL9
K14	SLIDE UP WARDS S.VALVE /H.P	Q1.1	YA8/YA5/HL10

Symbol	Descriptions	Address	I/O STATUS
K15	S SLIDE DOWN WARDS S.VALVE	Q1.2	NO/YA6/HL11
K16	LOW PRESSURE PUMP	Q1.3	NO-HL12
K9	INITIAL POSITION OF M/C	Q1.4	K9/HL13
K10	START SYCLE	Q1.5	K10/HL14
K7	AUTO SELECT	Q1.6	NO/K7-HL15
K8	SETTING SELECT	Q1.7	NO-HL16
K6	LOADING DEVICE ON CENTRE	Q2.0	NO
K18	CASING OF ROLLS SPINNING	Q2.1	NO
K19	H.PREESURE	Q2.2	NO
K20	H.PRESSURE	Q2.3	NO
K21	H.PRESSUR	Q2.4	NO

-:Flow Chart (4-1) Shows Automation Program
















SPINNING MC PLC HARDWARES



<p>START  .HYDR</p>	<p>HL2 </p>	<p>..STOP HYDR </p>
<p>.START SPIND </p>	<p>HL3 </p>	<p>.STOP SPIND </p>
<p>.STRAT COOL </p>	<p>HL4 </p>	<p>STOP COOL </p>
<p>STRAT  CYCLE</p>	<p>HL16   HL14</p>	<p>STOP CYCLE </p>
<p>EMERG. STOP </p>	<p>HL13  INITIAL POSTION</p>	<p>SA9 </p>

**OPERATOR CONTROL & DISPLAY PANEL FOR
 SPINNING M/C PLC AUTOMATION-1**

OPERATOR CONTROL & DISPLAY PANEL

 SA10 AUTO/MAN	  HL16 HL15	 HL10  H11	 SA13 SLIDES U/D
 SA11 QUILL U/D	  HL7 HL8	 HL5	 SA14- LDEVICE F/B
 SA12 .CARR	 HL19	 HL6	 SA15 ROLLS F/B

OPERATOR CONTROL & DISPLAY PANEL FOR SPINNING M/C PLC AUTOMATION-2

