

PLC(Programmable Logic Controller)

TPM /

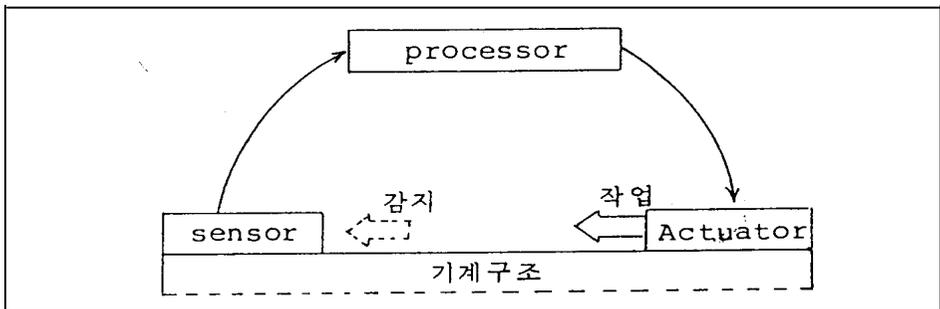
- 1. PLC
- 1.1 PLC

5.1.

1

(Processor)

가
가
가
가



5.1.1

가

가

가
가
(sesuencs)

가

가

가

가

가

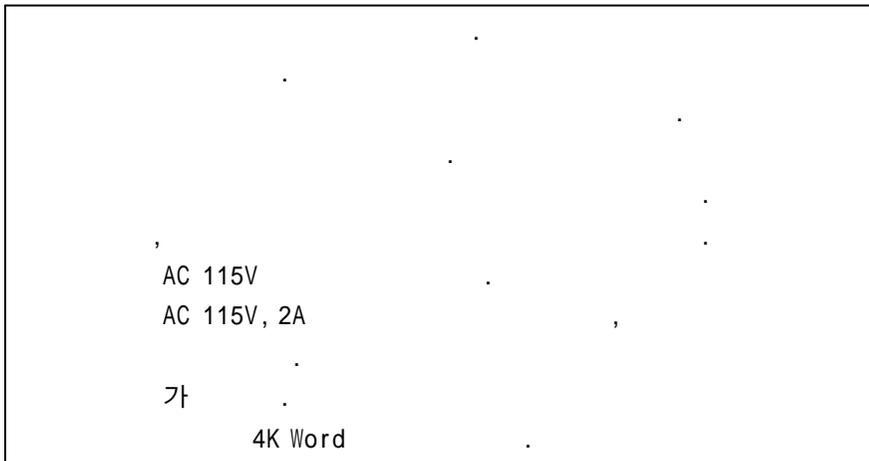
가

1969

GM 가

programmable controller

10가



5.1.2 GM

10

(programmable logic controller : PLC) Allen-

Bradley Modicon

70

PLC가

80

PLC

PLC

20

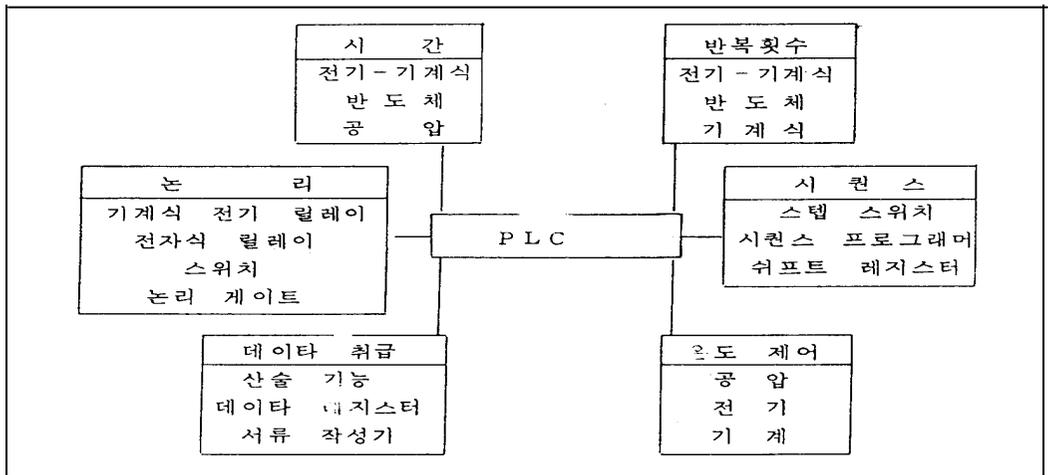
가

PLC

가

가

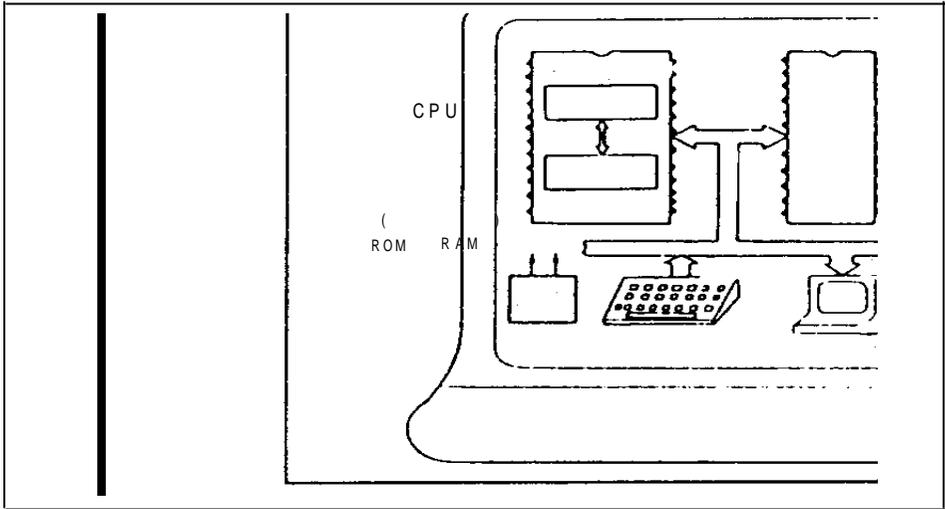
가
 가
 PLC MM 가
 PLC 5.1.3 PLC 가
 (NEMA) 1976
 (DIN) 1979
 NEMA PLC
 가



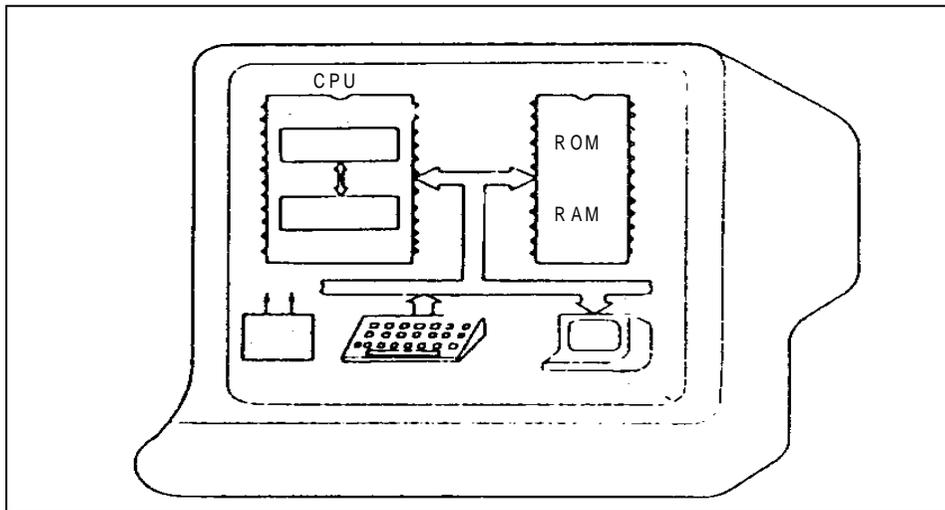
5.1.3 PLC

(1) PLC
 PLC
 PLC CPU
 PLC
 CRT
 가

PLC 1, 가 (CPU), PLC
 CPU, PLC
 8 16 CPU .
 IC 가
 가 가 (가
) PLC



(a) PLC



(b)

5.1.4 PLC

(2)
PLC

PLC 가 가

A/D (Analog to Digital) , PLC , D/A(Digital to Analog)

() , PLC 가 , A/
D D/A 「 」 .

PLC ,
PLC가 ,
가 , , PLC
가 , PLC
가 PLC

가 PLC

가 ,

1.2.2 PLC
PLC

PLC . 5
가 .
가 .

PLC

AND/OR

PLC

PLC

PLC

PLC

Boolean

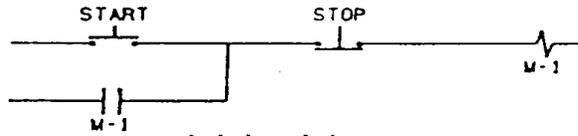
가 .

Boolean

PLC

PLC

PLC



릴레이 래더 구조

IF THE STOP BUTTON IS DEPRESSED, TURN THE STARTER OFF. OTHERWISE, IF THE STARTER BUTTON IS DEPRESSED, TURN THE STARTER ON. OTHERWISE, LEAVE THE STARTER IN ITS PRESENT STATE.

영어로 서술

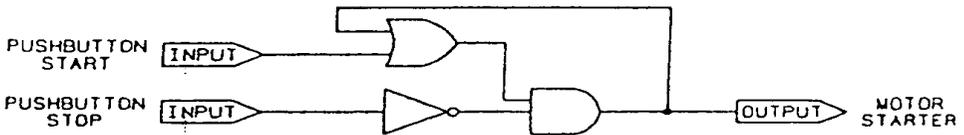
PBSTART:	LD	START	AND	STOP	AND	STARTER	SET
PBSTOP:	LD	STOP	AND	STARTER	RST	STARTER	
STARTER:	LD	STARTER	AND	START	AND	STOP	AND

기계어 프로그램

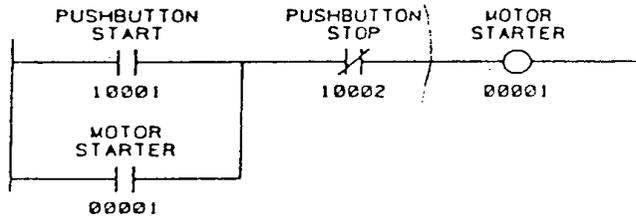
```

10 INPUT A 'PUSHBUTTON START'
20 INPUT B 'PUSHBUTTON STOP'
30 IF A=1 AND B=1 THEN C=1
40 IF B=0 THEN C=0
50 OUTPUT C
60 GO TO 10
    
```

컴퓨터 프로그램



반도체 논리



PLC 프로그램

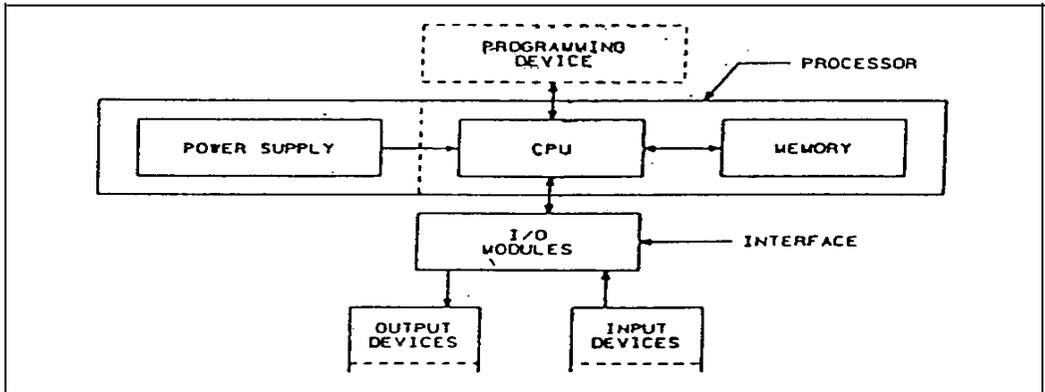
5.1.5

가

PLC

PLC

PLC



5.1.6 PLC

2 BCD (binary coded decimal) , BCD 2 , PID
 (proportional integral derivative)

PLC

가

5 240V

가 가

PLC

가

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