

PLC Important Instructions PDF

Instruction	Function WWW.EXAMBOOK.CO	Operand
LD	Load NO contact	X, Y, M, S, T, C
LDI	Load NC contact	X, Y, M, S, T, C
AND	Connect NO contact in series	X, Y, M, S, T, C
ANI	Connect NC contact in series	X, Y, M, S, T, C
OR	Connect NO contact in parallel	X, Y, M, S, T, C
ORI	Connect NC contact in parallel	X, Y, M, S, T, C
ANB	Connect a block in series	N/A
ORB	Connect a block in parallel	N/A
MPS	Start of branches. Stores current result of program evaluation	N/A
MRD	Reads the stored current result from previous MPS	N/A
MPP	End of branches. Pops (reads and resets) the stored result in previous MPS	N/A
OUT	Output coil	Y, S, M
SET	Latches the ON status	Y, S, M
RST	Resets contacts, registers or coils	Y, M, S, T, C, D, E, F
MC	Master control Start	N0~N7
MCR	Master control Reset	N0~N7
END	Program End	N/A
NOP	No operation	N/A
P	Pointer	P0~P255
I	Interrupt program pointer	I□□□
STL	Step ladder start instruction	S
RET	Step ladder return instruction	N/A

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Relay-type (Basic) instructions- I, O, OSR, SET, RES, T, C

Data Handling Instructions

1.Data move Instructions- MOV, COP, FLL, TOD, FRD, DEG, RAD (degrees to radian).

2.Comparison instructions-EQU (equal), NEQ (not equal), GEQ (greater than or equal), GRT (greater than).

Program flow control instructions- MCR (master control reset), JMP, LBL, JSR, SBR, RET, SUS, REF

Specific instructions- BSL, BSR (bit shift justify/right), SQO (sequencer output), SQC (sequencer compare), SQL (sequencer load).

High speed counter instructions- HSC, HSL, RES, HSE

Communication instructions- MSQ, SVC

ASCII instructions- ABL, ACB, ACI, ACL, CAN

Latch Instructions (Set and Reset)

The latch instruction is often called a SET or OTL (output latch).

The unlatch instruction is often called a RES (reset), OTU (output unlatch) or RST (reset).

Data comparison Instructions

less than (< or LESS),

equal to (= or EQU),

less than or equal to (<= or LEQ),

greater than (> or GRT),

greater than or equal to (>= or GEQ)

not equal to (NEQ)

Arithmetic (mathematical) Instructions

Addition (ADD) – The capability to add one piece of data to another.

Subtraction (SUB) – The capability to subtract one piece of data from another.

Multiplication (MUL) – The capability to multiply one piece of data by another.

Division (DIV) – The capability to divide one piece of data from another.

Continuous control (PID Instructions)

Master Control instruction (MC/MCR)

Jump to label instruction (JMP)

Label instruction (LBL)

Jump to Subroutine instruction (JSR)

Subroutine instruction (SBR)

Return from Subroutine instruction (RET)

Master Control/ Master Control Reset (MC/MCR) Instructions

MC/MCR (master control/master control reset)

MCS/MCR (master control set/master control reset)

MCR (master control reset)

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