

Differences between CX3G and CX2N

PLC series Differences	CX2N	CX3G
I/O	Active NPN (Public terminal link to negative)	Passive NPN, public terminal isolated
PLC type	Compatible with Mitsubishi FX2N	Compatible with Mitsubishi FX3G
Software	Compatible with Works 2/GX Developer8.52	Compatible with Works 2/GX Developer8.86
Write type	RUN not supported	Support RUN, convenient for modifying program
Programming port	Round head RS232programming port, USB programming port optional	Defaulted round head RS232programming port and USB port, programming port download speed up to 115200Kbps, USB download speed up to 12Mbps
Communicate port	Support Mitsubishi programming port protocol /MODBUS protocol/RS protocol. One Rs232, one Rs485 or two Rs485 can be customized. Normally the second Rs485 can only be Modbus slave. Two Rs485 as Modbus master can be customized, but the second Rs485 cannot be Rs command	Support Mitsubishi programming port protocol/Modbus/Rs/BD board protocol, easily achieved communication between each PLC and other external devices. (2 Rs485 can be customized, each of which can support Rs protocol, Modbus master and slave protocol, the first Rs485 can support BD protocol)
Program Capacity	8K steps	32K steps
Register range	D0~D999 (D200~D999 is power-off protection)	D0~D7999 (D128~D7999 is power-off protection): Extended Register R0~R23999(power-off protection)
Analog	Support multiple analog input and output, single or mixed, at most 20AD/8DA, analog input precision 12 bit, output 10 bit. Analog input is read the value of special registers, analog output is to reset standard bit ON and then value special registers. AD type: EK thermocouple /S thermocouple /J thermocouple / PT100 / PT1000 /NTC10K/ NTC50K/NTC100K /0-20mA /4-20mA /0- 10V /0-5V DA type: 0-10V/0-5V /0-20mA	Support multiple analog input and output, single or mixed, at most 16AD/8DA, analog input and output precision 12 bit. CX3G analog input support read register directly, can also use FROM command, analog output support value registers directly, can also use TO command, analog registers are not the same. AD type: K thermocouple /PT100/NTC10K/0~10V/0-5V/0~20mA/4~20mA DA type: 0-10V/0-5V /0-20mA /4-20mA
High speed counter	Regularly with 2 channels single or AB phase 10Khz high speed counter. At most 6 channels single phase (4 10-100K,2 5-10K) or 3 channels AB phase (2 10-100K,1 5-10K) or 3 ABZ phase (1 10-100K,2 5-10K). Fixed double frequency.	At most 6 channels single phase, at most 60KHz or 2-3 channels AB(Z) phase. At most 60KHz for double frequency, 24KHz for quadruplicated frequency.
Pulse	Regularly 4 channels 20Kpulse, at most can be customized to 5channel 20-200K. Acceleration and deceleration is the same register.	At most 8 channels 8-100KHz pulse. The total of 8 pulse cannot over 500K. Among which, regularly Y0~Y3 is 100KHz, Y4~Y7 is 8KHz(can be customized to 100KHz). Acceleration and deceleration are isolate, table setting location supported.
Supported instructs	Compatible with most instructs of FX2N, position instruct and floating points of 3U (123 instructs in total). EI and high speed compare not supported. PID supported, adjust automatically not supported, users need to modify parameters by hand.	Support EI, HSCS/HSCR/HSZ, PID and modify parameters automatically(only step response), BMOV+Z/ EMOV、GRY/GBIN、RAD/DEG、BK+/BK-、ABSD/INCD, etc. (76 instructs more than CX2G)