

FX2N Use of FNC 89 with Extension Data Registers

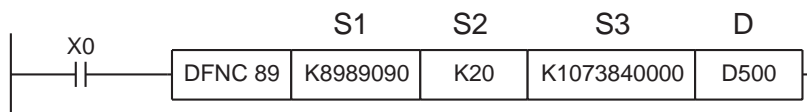
1. Extension Data Register Write Operation

This is a special operation which moves and writes data from a Data Register into an Extension Data Register. These extension data registers are 32 bit , so for every extension data register used 2 data registers must be used.

Extension Data Registers are constants (K), which are multiples of 4, between K1073840000 and K1073869996. (maximum of 7500 extension data registers or 15000 data registers).

One write operation can write a maximum of 500 Extension Data Registers (equivalent to 1000 data registers).

Example:



S1 = This is a constant K8989090.

S2 = This value is the number of Extension Data Registers being written to, in this case 20, corresponding to 40 data registers. (The range is K1 - K500)

S3 = This is the first extension data register to be written to (K1073840000 - K1073869996)

D = This is the first data register to be moved from. So data will be moved from D500 - D539. Index registers can also be used. The range is $[D+Z+(S2 \times 2)] \leq 8000$.

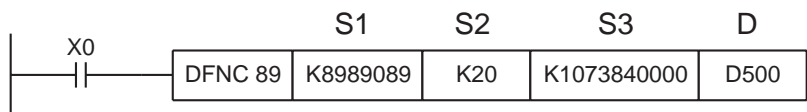
2. Extension Data Register Read Operation

This is a special operation which moves and reads data from Extension Data registers into data registers. These extension data registers are 32 bit so for every extension data register used 2 data registers must be used.

Extension data registers are constants (K), which are multiples of 4, between K1073840000 and K1073869996. (maximum of 7500 extension data registers or 15000 data registers).

One read operation can read a maximum of 500 extension data registers (equivalent to 1000 data registers)

Example:



S1 = This is a constant K8989089.

S2 = This value is the number of Extension Data Registers being read from, in this case 20, corresponding to 40 data registers (the range is K1 - K500).

S3 = This is the first Extension Data Register to be read from. (K1073840000 - K1073869996)

D = This is the first data register to be moved to. So data will be moved to 40 data registers D500 to D539. Index registers can also be used. The range is $[D+Z+(S2 \times 2)] \leq 8000$.

⚠ CAUTION: Please take care when using this instruction as the potential exists to cause the Programmable Controller to drive spuriously if incorrectly used.

