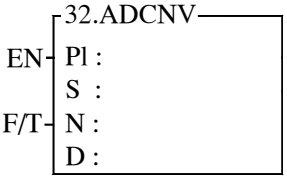
Arithmetical instruction

FUN32 ADCNV	Converting the raw value of 4～20mA analog input （ADCNV）	FUN32 ADCNV



Ope- \ Range	HR	IR	ROR	DR	K
	R0 | R3839	R3840 | R3903	R5000 | R8071	D0 | D4095	
Pl					0~1
S	○	○	○	○	
N	○		○	○	1~64
D	○		○*	○	

Pl：0, the polarity setting of analog input module is at unipolar position

：1, the polarity setting of analog input module is at bipolar position

S：Starting address of source registers

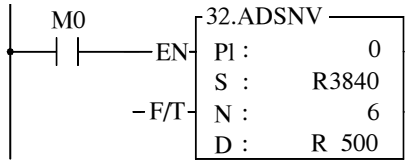
N：Quantity of conversion (In Word)

D：Starting address of destination registers

S, N, D may associate with V、Z、P0~P9 index register to serve the indirect addressing application.

- When the analog input is 4～20mA, the analog input module is one of the solution to get this kind of signal, but the input span of the analog input module is 0～20mA (Setting at 10V、Unipolar), however there will exist the offset of the raw reading value; this instruction is applied to eliminate the offset and convert the raw reading value into the range of 0～4095(12-bit) or 0～16383(14-bit), it is more convenient for following operation.
- When execution control "EN"=1, it will execute the conversion starting from S, length by N, and then store the results into the D registers.
- This instruction will not act if invalid length of N.
- When the input〝F/T〞=0, it assigns the 12-bit analog input module; while〝F/T〞=1, it assigns the 14-bit analog input module.

Example：



Description：When M0 is ON, it will perfom 6 points of conversion starting from R3840, where the offset of 4～20mA raw reading value will be eliminated, and the corresponding value 0～4095 will be stored into R500～R505.

	S		D		
R3840	－1229		R500	0	(4 mA)
R3841	409		R501	2047	(12 mA)
R3842	2047	⇨	R502	4095	(20 mA)
R3843	－2048		R503	0	(0 mA)
R3844	－2048		R504	0	(0 mA)
R3845	－2048		R505	0	(0 mA)