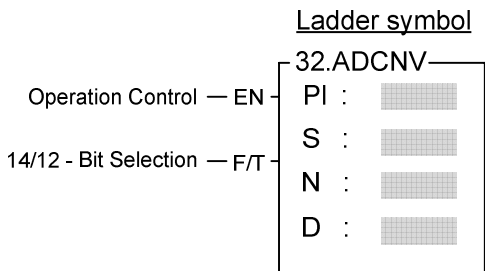


Arithmetical instruction

FUN32 ADCNV	CONVERTING THE RAW VALUE OF 4~20mA ANALOG INPUT (ADCNV)	FUN32 ADCNV
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PI : 0, the polarity setting of analog input module is at unipolar position (0~10mA/0~5V or 0~20mA/0~10V)  
 : 1, the polarity setting of analog input module is at bipolar position (-10~10mA/-5~5V or -20~20mA/-10~10V)

S : Starting address of source registers  
 N : Quantity of conversion (In Word)  
 D : Starting address of destination registers

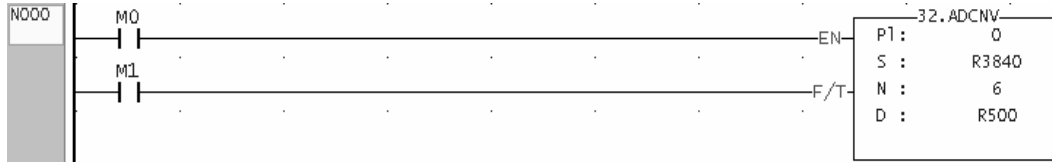
S, N, D may associate with V · Z · P0~P9 index register to serve the indirect addressing application.

Range	HR	IR	ROR	DR	K
Ope- rand	R0	R3840	R5000	D0	
	R3839	R3903	R8071	D3999	
PI					0~1
S	○	○	○	○	
N	○		○	○	1~64
D	○		○*	○	

- When the analog signal is one of 2~10mA/4~20mA/1~5V/2~10V, the analog input module is the solution to get the value of this kind of signal, but the input span of the analog input module is 0~10mA/0~5V (Setting at 5V·Unipolar) or 0~20mA/0~10V (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 application's 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.
- When the input "F/T" =0, it assigns the 12-bit operation; while "F/T" =1, it assigns the 14-bit operation.
- This instruction will not act if invalid length of N.
- The reading value of the analog input must be in -2048~2047 or -8192~8191 format that the conversion will have the correct correspondence. Otherwise, if the reading value is in 0~4095 or 0~16383 format that the conversion will have the wrong correspondence.

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Example :



Description : When M0 is ON and M1 is OFF, it will perform 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)

When M0 is ON and M1 is ON, it will perform 6 points of conversion starting from R3840, where the offset of 4~20mA raw reading value will be eliminated, and the corresponding value 0~16383 will be stored into R500~R505.

S		⇒	D	
R3840	-4916		R500	0 (4 mA)
R3841	1637		R501	8191 (12 mA)
R3842	8191		R502	16383 (20 mA)
R3843	-2048		R503	0 (0 mA)
R3844	-2048		R504	0 (0 mA)
R3845	-2048		R505	0 (0 mA)