
FAQ-031: Setting a special “ADR_” parameter of remote I-7000 & I-87xxx temperature input module to get clear “Degree Celsius” or “Degree Fahrenheit” input value. For ex, “8754” means 87.54 degree.

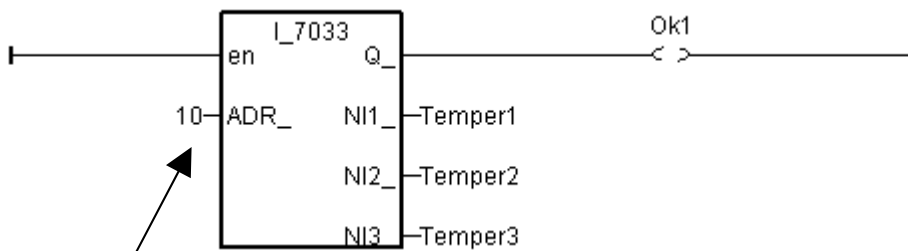
Important: Special “ADR_” setting is supported since driver version of I-8xx7:3.11 , I-7188EG:2.09 , I-7188XG:2.07 , W-8xx7:3.24

ICPDAS provides many temperature input modules as below.

With “broken-line detection” or called “wire opening detection”
Thermocouple type: I-87018R, 87019R, 7018R, 7018BL, 7019, 7019R
RTD type: I-87013, 87015, 7013, 7015, 7033
Thermister type: I-87005, 7005

Without “broken-line detection”
Thermocouple type: I-87018, 7018, 7018P

The “ADR_” parameter of temperature IO function block can be “standard setting” or “special setting”. For example setting “ARD_” of the “I_7033” function block to 1 to 255 (Dec. value) means “standard setting”, the value of 1 to 255 indicates the address of the remote I-7033. The temperature input value is normally -32768 to $+32767$ in the case. It depends on the IO module’s “Type code” setting (Set by DCON utility). (normally value of -32768 & $+32767$ means wire “broken-line”)



ADR_ = 10 (TT=00, RR=00, AA=0A, Hex.) means “standard setting”, address=10, the temperature input value is normally -32768 to $+32767$

If ADR_ = 16#10201A (TT=10, RR=20, AA=1A, Hex) means “special setting”, “Degree Celsius”, “type code=20 of this I-7033 module set by DCON utility”, address=26, the temperature input value is a clear “Degree Celsius” value, for example, value of 4556 mans “45.56” degree. “-500” means “-5.00” degree.

If user want to get a clear temperature input value, for example, value of 2312 means “23.12” Degree Celsius. Then please set “ADR_” to a special value defined as below.

Format: TTRRAA (Hex.)
TT=10 (Convert to "Degree Celsius")
TT=20 (Convert to "Degree Fahrenheit")

TT=00 (standard setting, -32768 to +32767. RR should be set as 00 if TT=00)
RR: "type code" setting of the related temperature input module
AA: address of the related temperature input module

For example, setting "ADR_" as

- A. 16#102011 : (TT=10, RR=20, AA=11, Hex) the input value will be "Degree Celsius", unit is 0.01 degree, range= "20 : Platinum 100, a=0.00385, degree Celsius", address=17(Dec.). That results input value of "2356" = 23.56 Degree Celsius, "-489" = -4.89 Degree Celsius, "999990" = sensor broken-line.
- B. 16#202A03 : (TT=20, RR=2A, AA=03, Hex)) the input value will be "Degree Fahrenheit", unit is 0.01 degree, range= "2A : Platinum 1000, a=0.00385, degree Celsius", address=3(Dec.). That results input value of "4512" = 45.12 Degree Fahrenheit, "500" = 5.00 Degree Fahrenheit, "999990" = sensor broken line.
- C. 16#01 : (TT=00, RR=00, AA=1) standard setting, the input value will be , -32768 to +32767, address=1