I-7565-DNM FAQ

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Q1: How to connect the CAN bus of the I-7565-DNM with the slave device which need DC power in the CAN bus? (2013/10/12, Johney)

Ans:

Here shows the instruction of the wire connection.



CAN bus wire connection without DC power



CAN bus wire connection with 24VDC power

(2013/10/12, Johney)



Q2: How to develop the x64 software with the I-7565-DNM? (2013/10/15, Johney)

Ans:

The users need the following steps.

- (1) Install the VS2008 VC++ and x64 Compiler tool
- (2) Install the VS2008 and Windows Software Development Kit

The Visual C++ Express version does not support the x64 tool. The users need extra x64 tool. The user can download the Windows Software Development Kit (SDK) for free from the Microsoft website.

(3) The user can use the DumpBin /Headers tool to see if the DLL supports x86 or x64 platform.

(2013/10/15, Johney)



Q3: How to connect the M12 connector with the I-7565-DNM? (2013/11/02, Johney)

Ans:

We have provided the M12 connector on the website. Here shows the information.







(2013/11/02, Johney)



Q4: How to connect the DeviceNet slave which has 2-byte instance ID with the I-7565-DNM? (2013/11/05, Johney)

Ans:

We have provided the new firmware to support the 2-byte instance ID. Please update the firmware to v1.5 or newer. We have verified the firmware works fine by the AB inverter.





(2013/11/05, Johney)



Q5: What is the meaning of the Explicit_EPR in the AddDevice() function? (2013/11/07, Johney)

Ans:

It is the "Expected Packet Rate". This means that the timeout value when the slave device does not response. There are various slave devices which have different performance. We suggest that the user set the value of 2500 which is the default value of the DeviceNet spec.

(2013/11/07, Johney)



Q6: Does the I-7565-DNM support loading the EDS file function? (2015/12/02, Johney)

Ans:

There is another method which works like loading the EDS file.

By using the DNM_Utility, the user could add slave devices one by one in the first I-7565-DNM. The setting information will always be saved in the module, even the module was moved to another PC.

After adding all slave devices, the users are able to "Export the setting" from the I-7565-DNM. By using the "Export" button in the DNM_Utility, the setting of the I-7565-DNM will be save in a file (*.EEP). The "Export" button was shown In the ch 3.1.11 of the DNM_Utility manual which is "DeviceNet Master Utility User Manual.pdf".



The file (*.EEP) could be viewed as the EDS file of the I-7565-DNM. The users can "Import the file" into another I-7565-DNM by the DNM_Utility. The "Import" button was shown in the ch3.1.12 of the DNM_Utility manual which is "DeviceNet Master Utility User Manual.pdf".



The configured I-7565-DNM has all the slaves' information. The users just make the I-7565-DNM to start working in the Labview and no need to add the slave devices again. (2015/12/02, Johney)



Q7: Does the I-7565-DNM could work on Win10 system? (2016/12/16, Johney)

Ans:

The I-7565-DNM was based on the I-756x USB driver. Here shows the I-7561 could work on Win10 system.



The DNM_Utility and I-7565-DNM also work fine on Win10 system.





Q8: Does the I-7565-DNM could only work with Explicit Message connection? (2016/12/16, Johney)

Ans:

Yes. The firmware version v1.6 or newer could support this methodology.

After added slave devices, you need to call I7565DNM_StartAllDevice API. It will make the I-7565-DNM to communicate with all slave devices. The user could follow the flow char in the manual. Here is the example in page 38.





Q9: Does the I-7565-DNM could suspend the I/O connection? (2016/12/16, Johney)

Ans:

Yes. The firmware version v1.6 or newer could support this methodology.

Here is the example which the I-7565-DNM suspend the I/O connection and then send explicit message. Finally, the I-7565-DNM resumed the I/O connection.

Ret = I7565DNM.I7565DNM_PauseIOConnection(ActiveBoardNo, SlaveMacID) alllcate = GetAllocationInfo(ActiveBoardNo, SlaveMacID)
Dim ReadOutData(512) As Byte Dim woIOData(1) As Byte
Thread.Sleep(200) wolUUata(U) = "&HU1" wolOData(1) = "&HO7"
Ret = I7565DNM.I7565DNM_SendExplicitMSG_W(ActiveBoardNo, SlaveMacID, "&H10", "&H6D", "&H01", 2, woIOData) If (Ret = I7565DNM.DNMXS_NoError) Then 'Debug.Print("Init : OK!!")
Dim timer As Integer = U While Timeout(timer, 1000, 20000) Ret = 17565DNM_I7565DNM_ISExplicitMSGRespOK(ActiveBoardNo, SlaveMacID) If (Ret = 17565DNM_DNMXSN NoError) Then
Thread.Sleep(1000) Ret = I7565DNM.I7565DNM_GetExplicitMSGRespValue(ActiveBoardNo, SlaveMacID, 512, ReadOutData) If (Ret = I7565DNM.DNMXS_NoError) Then '' Debug.Print("Return : OK!!") Thread.Sleep(1000)
Exit While Else 'MessageBox.Show(String.Format("GetReadAttibuteMSGRespValue : Error! {0}", Ret)) End If Else
Debug.Print("") End If End While
Else ' Debug.Print(String.Format("Init fail : Error! {0}", Ret)) End If
Thread.Sleep(200) Ket = 17565UNM.17565UNM_ResumeIOConnection(ActiveBoardNo, SlaveMacID)



Q10: How to communicate with the [SMC Valve] by the I-7565-DNM? (2016/12/16, Johney)

Ans:

SMC ITVH-2000 :

Series ITV electro-pneumatic and electronic vacuum regulators control air/vacuum pressure in proportion to an electric signal. They are light weight in design with a bright and easy to read LED display.



Wire connection with the DeviceNet Master:





The DNM Utility communicates with the SMC ITV valve :

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loard No:	Rosott W		0 -40		
Activ David	ware Ver 250 Marter (D. 0	Baud Rate. 15	75K bpz Maeler Stal	00 00	
wate Devices Configuration Re	sole Devices I/O Monitor				
7					
(internet)					
1					
Designing of the second	a TV Transfer Tage Pol	20000			
DeviceName 1.11 Ting dat	a IIV Connection Type (Pall	Ever Gode:		0 ist D W	a.10]
DeviceNane LAP Hagdad Houd Data Bytes L PD FF	a if V Correction Type (Pat right 7 jacon	EverCode: Longh 2	Carell Q	0 int 0 w GetAtbuse	x.10
DeviceNane: 1.17 Magdad Inpud Data Bytes L IPD FF:	a ITV Econocion Type (Pal) mgh (2 Gugae Dala Bure) (80.00	Eine Code Langth (2		0 inst 10 w GerAthshow OI • BYTE / MOPO	* ID DWORD
DeviceNane: J. I.P. Regular Input Data Bytes: L PD FF:	a ITV Econocidon Type (Pat) mph 2 Gupte Data Bree: 10000	Ever Code: Langth (2		0 Inst D A GetAtsbore OI • BYTE MORO	z ID DWORD
DeviceNane: J. I.P. Regular Input Data Bytes: L RD FF:	a ITV Correction Type (Pat righ 7 0 upor Data Bree) 19000	Ever Code: Langth (2		0 inst 0 w GerAthoue OI • BYTE IMORO	x ID DWORD

Here shows that the DNM_Utility has communicated the SMC valve.

	The name of the slave The output data of the slave
DeviceN Input Da IFB,FF;	leme : E/P Regulator ITV Connection Type : Poll Excr Code : ta Bytes : Length : 2 Dutput Data Eytes : Length : 2 00.00: Class ID Inst. ID Atts. ID Get Attrbute ASCII © BYTE © WORD OWORD
	The input data from the slave
	The operation of "Get" or "Set" attributes. The ClassID(1), Inst.ID(1) and Attr. ID(7) means to get the full name of the slave.



Q11: How to communicate with the [MKS FRCA Valve] by the I-7565-DNM? (2016/12/16, Johney)

Ans:

MKS FRCA Ratio Mass-Flo Controller :

The MKS FRCA Ratio Mass-Flo® controller is a compact unit, which accurately divides the mass flow of gas or any mixture of gasses (Qin) into two proportionate flows (Q1 & Q2). The flow outputs are controlled by programming the ratio of the two outputs ($\alpha = Q2/Q1$) to a value equal to or greater than 1. The MKS FRCA Ratio Mass-Flo controller uses proven thermal sensor technology to measure the flows through the unit and provides quick response to changes in ratio (α) setpoint. The ratio of the flow outputs of the MKS FRCA Ratio Mass-Flo controller remains constant through input flow perturbations.



Wire connection with the DeviceNet Master:

DRAIN

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DeviceNet Master Utility V1.5
Board Edit About
Total Modules 1 Module No 3
Active Module Firmware Ver: 1.40 Master ID : 0 Baud Rate : 500K bps Master Status : 0K!
Remote Devices Configuration Remote Devices I/O Monitor
5 12 Change the output value to open or close the valve.
DeviceName: FRC Connection Type : Poll Error Code :
Input Data Bytes : Length: 6 Output Data Bytes: Length: 5 6 CBXFF
84.00,23,6C,57,3F; 08,3F,00,00,00; Image: Constraint of the second

The DNM Utility is communicating with the MKS FRCA valve



Q12: How to communicate with the [UNIT IFC-125 Valve] by the I-7565-DNM? (2017/12/07, Johney)

Ans:

CELERITY UNIT IFC-125 :

Celerity Mass Flow Controllers Precisely monitor and control the mass flow of gases in processes such as Plasma Etching, CVD, Diffusion, EPI, and Sputtering where superior accuracy is required. Mass Flow Meters are identical to mass flow controllers, except that they do not have a controlling valve. Therefore they do not control, but only accurately measure and report the gas flow that is passing through them.



The pictures came from the manual and are belonged to the Celerity.



Wire connection with the DeviceNet Master:

The users need to provide extra DC 24V power in M12-5PIN of the V+(pin-2) and V-(pin-3) for the DeviceNet module.



Set the UNIT IFC-125 MAC-ID = 19





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al Modules 1 Module No	4)) Her (•
1 Active Module	Firmware Ver:	1,30 Master ID :	0 Baud Rate	125K bps Mast	er Status: 000	
emote Devices Configuration	Remote Device	is 1/D Manitor				
To x	AC-ID of	IFC-125				
10	-					
19 -	IPC	a manage			011	and the second
	FC name	1/0 co	nnection		Other obje	ect data
		Connection Type : Pol	Ency Code			
DeviceNane : IFC S	enes Conholler				Charge 10, 100 Look 10, 1	
DeviceName : IFC Se Input Data Bytes	Length : 3	Culput Data Bytes	Length: 2	100	Crass in 100 mar in 11	Altr. ID 7
DeviceName : IFC S Input Data Bytes 00.DA.FF:	Length 3	Cutput Data Bytes	: Length:)2	Contrar of	Get Athle	Alt: ID 7
DoviceName : IFC Sr Input Data Bytes 80.DA.FF:	Length : 3	Cutput Data Bytes	tenghi j2	antes out and	Get Amit • (ASD) () BYTE () (A6203025400	Ain ID 7 wis WORD C DWORD
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The DNM Utility is communicating with the UNIT IFC-125 valve

The node #19(IFC-125 valve) supports Poll connection. The Poll connection is with 3-byte input data and 2-byte output data which indicates the valve information.

