

1. GENERAL FEATURES:

Control Points: 4 digital inputs for push buttons;

Control: Via MD BUS;

Applications: This module, thanks to its reduced dimensions, is intended to be applied inside push buttons/switches housings

2. GENERAL SPECIFICATIONS:

Voltage: 12VDC;

Consumption: 5mA @ 12VDC;

Storage Temperature: -10°C to 60°C;

Operating Temperature: 10°C to 50°C;

Maximum humidity: 80%, non-condensing.

Physical Specifications:

Dimension: 19mm X 47mm X 42mm;

Level of Protection: IP00, for indoor use;

3. COMPATIBILITY:

PCCWd Compatibility: V2.0 or higher;

Mordomus Software Compatibility: Software Mordomus v2015.2 or higher;

4. SECURITY:

Before making any connections, please read these instructions.

5. CONNECTIONS:

Thickness of conductors:

Circuit Digital Inputs:

CAT6 Cable F/UTP shielded, twisted;

Bus Circuit:

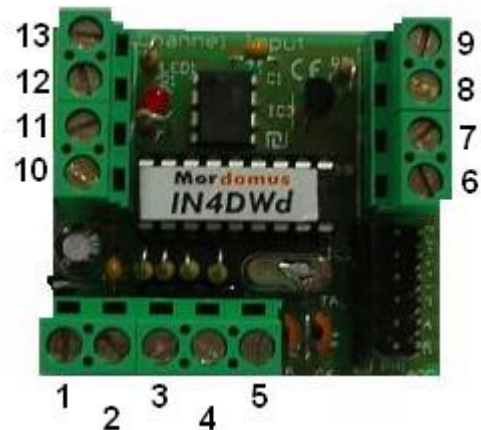
CAT6 Cable F/UTP shielded, twisted;

Power Circuit:

Mono or multi-filar at least 0.75 mm².

Table of Connections:

Number	Function
1	GND
2	Digital Input
3	Digital Input
4	Digital Input
5	Digital Input
6	+ 12VDC
7	MD BUS RX (A)
8	MD BUS RX (B)
9	GND
10	+12VDC
11	MD BUS RX (A)
12	MD BUS RX (B)
13	GND



Connect the Bus:

To connect the BUS, it must be used a Interlace pair CAT6 cable. For example: Green for **A** and Green/White for **B**. The shield should be connected to GND.

Connect the 12VDC:

It is recommend the use of Mean-Well power supplies, DR60-12 and DR30-12.

6. ADDRESSING AND CONFIGURATION:

Table 1 Address intervals:

	J5	J4	J3	J2	J1	J0	J5	J4	J3	J2	J1	J0	J5	J4	J3	J2	J1	J0	J5	J4	J3	J2	J1	J0
Jumpers position	○	○	○	○	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Address	Base						Expanded 1						Expanded 2						Expanded 3					
Start Address	6						760						1008						1256					
End Address	253						1007						1255						1503					

Table 1 Address intervals:

Base	J5	J4	J3	J2	J1	J0	J5	J4	J3	J2	J1	J0	J5	J4	J3	J2	J1	J0	J5	J4	J3	J2	J1	J0	J5	J4	J3	J2	J1	J0						
Jumpers position	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○						
Start Address	6						10						14						18						22						26					
End Address	9						13						17						21						25						29					
Jumpers position	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○						
Start Address	30						34						38						42						46						50					
End Address	33						37						41						45						49						53					
Jumpers position	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○						
Start Address	54						58						62						66						70						74					
End Address	57						61						65						69						73						77					
Jumpers position	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○						
Start Address	78						82						86						90						94						98					
End Address	81						85						89						93						97						101					
Jumpers position	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○						
Start Address	102						106						110						114						118						122					
End Address	105						109						113						117						121						125					
Jumpers position	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○						

Start Address	126	130	134	138	142	146																								
End Address	129	133	137	141	145	149																								
Jumpers position	● ○ ○ ● ○ ○	● ○ ○ ● ○ ●	● ○ ○ ● ● ○	● ○ ○ ● ● ●	● ○ ● ○ ○ ○	● ○ ● ○ ○ ●																								
Start Address	150	154	158	162	166	170																								
End Address	153	157	161	165	169	173																								
Jumpers position	● ○ ● ○ ● ○	● ○ ● ○ ● ●	● ○ ● ● ○ ○	● ○ ● ● ○ ●	● ○ ● ● ● ○	● ○ ● ● ● ●																								
Start Address	174	178	182	186	190	194																								
End Address	177	181	185	189	193	197																								
Jumpers position	● ● ○ ○ ○ ○	● ● ○ ○ ○ ●	● ● ○ ○ ● ○	● ● ○ ○ ● ●	● ● ○ ● ○ ○	● ● ○ ● ○ ●																								
Start Address	198	202	206	210	214	218																								
End Address	201	205	209	213	217	221																								
Jumpers position	● ● ○ ● ● ○	● ● ○ ● ● ●	● ● ● ○ ○ ○	● ● ● ○ ○ ●	● ● ● ○ ● ○	● ● ● ○ ● ●																								
Start Address	222	226	230	234	238	242																								
End Address	225	229	233	237	241	245																								
Jumpers position	● ● ● ● ○ ○	● ● ● ● ○ ●																												
Start Address	246	250																												
End Address	249	253																												
Expanded 1	J 5	J 4	J 3	J 2	J 1	J 0	J 5	J 4	J 3	J 2	J 1	J 0	J 5	J 4	J 3	J 2	J 1	J 0	J 5	J 4	J 3	J 2	J 1	J 0	J 5	J 4	J 3	J 2	J 1	J 0
Jumpers position	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ●	○ ○ ○ ○ ○ ●	○ ○ ○ ○ ○ ●	○ ○ ○ ○ ○ ●	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	
Start Address	760	764	768	772	776	780																								
End Address	763	767	771	775	779	783																								
Jumpers position	○ ○ ○ ● ● ○	○ ○ ○ ● ● ●	○ ○ ○ ● ○ ○	○ ○ ○ ● ○ ○	○ ○ ○ ● ○ ○	○ ○ ○ ● ○ ●																								
Start Address	784	788	792	796	800	804																								
End Address	787	791	795	799	803	807																								
Jumpers position	○ ○ ● ● ○ ○	○ ○ ● ● ○ ●	○ ○ ● ● ● ○	○ ○ ● ● ● ●	○ ○ ● ○ ○ ○	○ ○ ● ○ ○ ○																								

Start Address	808	812	816	820	824	828
End Address	811	815	819	823	827	831
Jumpers position	○ ● ○ ○ ● ○ ○	○ ● ○ ○ ● ● ○	○ ● ○ ● ○ ○ ○	○ ● ○ ● ○ ● ○	○ ● ○ ● ● ○ ○	○ ● ○ ● ● ● ○
Start Address	832	836	840	844	848	852
End Address	835	839	843	847	851	855
Jumpers position	○ ● ● ○ ○ ○ ○	○ ● ● ○ ○ ● ○	○ ● ● ○ ● ○ ○	○ ● ● ○ ● ● ○	○ ● ● ● ○ ○ ○	○ ● ● ● ○ ○ ●
Start Address	856	860	864	868	872	876
End Address	859	863	867	871	875	879
Jumpers position	○ ● ● ● ● ○ ○	○ ● ● ● ● ● ○	○ ○ ○ ○ ○ ○ ○	○ ● ○ ○ ○ ○ ○ ●	○ ● ○ ○ ○ ○ ○ ○	○ ● ○ ○ ○ ○ ● ●
Start Address	880	884	888	892	896	900
End Address	883	887	891	895	899	903
Jumpers position	● ○ ○ ● ○ ○ ○	● ○ ○ ● ○ ○ ●	● ○ ○ ● ● ○ ○	● ○ ○ ● ● ● ●	○ ● ○ ○ ○ ○ ○ ○	● ○ ● ○ ○ ○ ●
Start Address	904	908	912	916	920	924
End Address	907	911	915	919	923	927
Jumpers position	● ○ ● ○ ● ○ ○	● ○ ● ○ ● ● ●	● ○ ● ● ○ ○ ○	● ○ ● ● ○ ● ●	○ ● ● ● ● ○ ○	● ○ ● ● ● ● ●
Start Address	928	932	936	940	944	948
End Address	931	935	939	943	947	951
Jumpers position	● ● ○ ○ ○ ○ ○	● ● ○ ○ ○ ○ ●	● ● ○ ○ ● ○ ○	● ● ○ ○ ● ● ●	● ● ○ ● ○ ○ ○	● ● ○ ● ○ ○ ●
Start Address	952	956	960	964	968	972
End Address	955	959	963	967	971	975
Jumpers position	● ● ○ ● ● ○ ○	● ● ○ ● ● ● ●	● ● ● ○ ○ ○ ○	● ● ● ○ ○ ○ ●	● ● ● ○ ● ○ ○	● ● ● ○ ● ● ●
Start Address	976	980	984	988	992	996
End Address	979	983	987	991	995	999
Jumpers position	● ● ● ● ○ ○ ○	● ● ● ● ○ ● ○				
Start Address	1000	1004				
End Address	1003	1007				

Expanded 2	J 5	J 4	J 3	J 2	J 1	J 0	J 5	J 4	J 3	J 2	J 1	J 0	J 5	J 4	J 3	J 2	J 1	J 0	J 5	J 4	J 3	J 2	J 1	J 0	J 5	J 4	J 3	J 2	J 1	J 0	J 5	J 4	J 3	J 2	J 1	J 0
Jumpers position	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Start Address	1008						1012						1016						1020						1024						1028					
End Address	1011						1015						1019						1023						1027						1031					
Jumpers position	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Start Address	1032						1036						1040						1044						1048						1052					
End Address	1035						1039						1043						1047						1051						1055					
Jumpers position	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Start Address	1056						1060						1064						1068						1072						1076					
End Address	1059						1063						1067						1071						1075						1079					
Jumpers position	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Start Address	1080						1084						1088						1092						1096						1100					
End Address	1083						1087						1091						1095						1099						1103					
Jumpers position	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Start Address	1104						1108						1112						1116						1120						1124					
End Address	1107						1111						1115						1119						1123						1127					
Jumpers position	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Start Address	1128						1132						1136						1140						1144						1148					
End Address	1131						1135						1139						1143						1147						1151					
Colocação de jumpers	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
Start Address	1152						1156						1160						1164						1168						1172					
End Address	1155						1159						1163						1167						1171						1175					
Jumpers position	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
Start Address	1176						1180						1184						1188						1192						1196					
End Address	1179						1183						1187						1191						1195						1199					

Start Address	1376	1380	1384	1388	1392	1396
End Address	1379	1383	1387	1391	1395	1399
Jumpers position	● ○ ○ ● ○ ○	● ○ ○ ● ○ ●	● ○ ○ ● ● ○	● ○ ○ ● ● ●	● ○ ● ○ ○ ○	● ○ ● ○ ○ ●
Start Address	1400	1404	1408	1412	1416	1420
End Address	1403	1407	1411	1415	1419	1423
Jumpers position	● ○ ● ○ ● ○	● ○ ● ○ ● ●	● ○ ● ● ○ ○	● ○ ● ● ○ ●	● ○ ● ● ● ○	● ○ ● ● ● ●
Start Address	1424	1428	1432	1436	1440	1444
End Address	1427	1431	1435	1439	1443	1447
Jumpers position	● ● ○ ○ ○ ○	● ● ○ ○ ○ ●	● ● ○ ○ ● ○	● ● ○ ○ ● ●	● ● ○ ● ○ ○	● ● ○ ● ○ ●
Start Address	1448	1452	1456	1460	1464	1468
End Address	1451	1455	1459	1463	1467	1471
Jumpers position	● ● ○ ● ● ○	● ● ○ ● ● ●	● ● ● ○ ○ ○	● ● ● ○ ○ ●	● ● ● ○ ● ○	● ● ● ○ ● ●
Start Address	1472	1476	1480	1484	1488	1492
End Address	1475	1479	1483	1487	1491	1495
Jumpers position	● ● ● ● ○ ○	● ● ● ● ○ ●				
Start Address	1496	1500				
End Address	1499	1505				

To address the IN4DWd proceed as follows:

1. Check in Table 1 - Range Address are ranges in which the address (Base, Expanded 1, Expanded 2 or Expanded 3) is the address you want to assign to the module;
2. With the module properly supplied, place the jumpers in addressing mode according to Table 2 - Addresses within the range, and cut briefly to 12VDC power supply. The module will be from this moment with the desired address.
3. If you want to put the address in an expanded address range, put all the Address Jumpers at the module and cut briefly power supply 12VDC. The Red LED will start flashing rapidly, indicating that it is in learning mode.
4. Set jumpers according to Table 1 - Ranges address in address range you want and remove the jumper

J1 in last position. The LED will blink four times slowly. The module from now belongs to the address range configured.

5. Set the jumpers for the desired address as shown in Table 2 - Addresses within the range and cut briefly power supply 12VDC.

Note that as default IN4DWd is in the Base range address.

7. FUNCTIONING:

LED Code:

Red LED blinking - indicates data sent for RX Bus;

Red LED blinking quickly - Indicates that the module is in learning mode for address configuration and Extended Base 1/2/3.