Modicon M340 automation platform

Quick wiring adapters for Modicon M340 PLC

Presentation

The Quick Wiring Adapters is a set of connectors for the M340 Range. These connectors are intended to simplify the replacement of a legacy Modicon Compact PLC with our latest offer, the M340 PLC.
The adapters allow IO field wiring connectors to be removed from the Compact PLC and plugged directly into the M340.
Thirteen new references make the necessary wiring translations between Compact and M340 IO modules and fully meet the mechanical environmental specifications of the M340 range.

Quick Wiring Adapters Features

The Quick Wiring Adapters have the same look and feel as the standard M340 IO module connectors. The new connectors increase the depth and extend below the IO module.

- The quick wiring adapters use the same mounting/retention screws to hold the adapter to the M340 module
- The adapter receptacles accept the two Compact IO module field wiring connectors
- A clear cover is sized to retain the wiring harness
- The cover also has features to accept and retain the wiring label that was used on the Compact IO module

Compact modules/M340 modules compatibility

Type of module	Compact Module reference	Compact Module Comment	M340 Module reference	M340 Module Comment	M340 Compatibility	Quick Wiring Adapter reference
Digital input	AS-BDEO 216	24 VDC 16 Point Input Module	BMX DDI 1602	16 point 24 VDC input sink	O.K.	990 XSM00206
	AS-BDEP 208	230 VAC 8 Point Input Module	BMX DAI 0805	8 point 200 to 240 VAC input	O.K.	990 XSM00201
	AS-BDEP 209	120 VAC 8 Point Input Module	BMX DAI 1604	16 point 110 VAC input	O.K.	990 XSM00213
	AS-BDEP 210	115 VAC 8 Point Input Module	BMX DAI 1604	16 point 110 VAC input	O.K.	990 XSM00213
	AS-BDEP 211	115 VAC 8 Point Input Module	BMX DAI 1604	16 point 110 VAC input	O.K.	None
	AS-BDEP 214	12-60 VDC 16 Point Input Module	BMX DDI 1602 BMX DDI 1603	16 point 24 VDC input 16 point 48 VDC input	For 24 VDC module ensure that the lower input current turn-on threshold is OK for application. BMXDDI1603 input voltage threshold is 34 V versus 12 V for AS-DEP214. No replacement for 12 V and 60 V.	990 XSM00206
	AS-BDEP 215	5 VDC TTL 16 Point Input Module	–	–	No exact replacement but can be replaced with HMI functionality.	None
	AS-BDEP 216	24 VDC 16 Point Input Module	BMX DDI 1602	16 point 24 VDC input sink	O.K.	990 XSM00206
	AS-BDEP 217	24 VDC 16 Point Input Module	BMX DAI 1602	16 point 24 VDC input sink	OK but need negative logic.	990 XSM00201
	AS-BDEP 218	115 VAC 16 Point Input Module	BMX DAI 1604	16 point 110 VAC input	O.K.	990 XSM00201
	AS-BDEP 220	Fast 24 VDC 16 Point Input Module	–	–	Depending upon the response time there are replacements.	None
	AS-BDEP 254	12-60 VDC 16 Point Input Module	BMX DDI 1602H BMX DDI 1603H	16 point 24 VDC input 16 point 48 VDC input	For 24 VDC module ensure that the lower input current turn-on threshold is OK for application. BMXDDI1603 input threshold is 34 V versus 12 V for AS-DEP254. Temperature is 0 to 60 °C for BMXDDI1603 where AS-DEP254 is rated for -40 to 70 °C No replacement for 12 V and 60 V.	990 XSM00206
	AS-BDEP 254C	12-60 VDC 16 Point Input Module, ext temp + Coated	BMX DDI 1602H BMX DDI 1603H	16 point 24 VDC input 16 point 48 VDC input	For 24VDC module ensure that the lower input current turn-on threshold is OK for application. BMXDDI1603 input threshold is 34 V versus 12 V for AS-DEP254. Temperature is 0 to 60 °C for BMXDDI1603 where AS-DEP254 is rated for -40 to 70 °C No replacement for 12 V and 60 V.	990 XSM00206
	AS-BDEP 256	24 VDC 16 Point Input Module	BMX DDI 1602H	16 point 24 VDC input sink	BMXDDI1602 is only rated for 0 to + 60 °C versus - 40 to + 70 °C for AS-BDEP256.	990 XSM00206
	AS-BDEP 256C	24 VDC 16 Point Input Module, ext temp + Coated	BMX DDI 1602H	16 point 24 VDC input sink	BMXDDI1602 is only rated for 0 to + 60 °C versus - 40 to + 70 °C for AS-BDEP256C	990 XSM00206
	AS-BDEP 257	110 VDC 16 inputs Ext. Temp	BMX DDI 1604T	16 point 125 VDC input	Nominal input voltage for BMXDDI1604 is 100 to 150 VDC versus 55 to 170 VDC for AS-BDEP257. Response time for BMXDDI1604 is 9 ms versus 6 ms for the AS-BDEP257. Temperature for BMXDAI1604T is -25 to + 70 °C versus - 40 to + 70 °C.	990 XSM00206
	AS-BDEP 257C	110 VDC 16 inputs, ext temp + Coated	BMX DDI 1604T	16 point 125 VDC input	Nominal input voltage for BMXDDI1604 is 100 to 150 VDC versus 55 to 170 VDC for AS-BDEP257. Response time for BMXDDI1604 is 9 ms versus 6 ms for the AS-BDEP257. Temperature for BMXDDI1604T is -25 to + 70 °C versus - 40 to + 70 °C. No conformal coat available.	990 XSM00206
	AS-BDEP 296	60 VDC 16 inputs	–	–	No replacement	–
	AS-BDEP 297	48 VDC 16 inputs	BMX DDI 1603	16 point 48 VDC input	O.K.	990 XSM00206

Modicon M340 automation platform

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Compact modules/M340 modules compatibility

Type of module	Compact Module		M340 Module		M340 Compatibility	Quick Wiring Adapter reference
	reference	Comment	reference	Comment		
Digital output	AS-BDAO 216	24 VDC 16 Point Output Module	BMX DDO 1602	16 point Output 24 VDC	O.K with slightly slower response. BMXDDO1602 response time 1.2 ms vs. < 1 ms for AS-BDAO216	990 XSM00206
	AS-BDAP 204	4 Point Relay (NO) Module	BMX DRA 0805	8 point relay outputs	O.K. 4 relay on Compact 8 on M340.	990 XSM00203
	AS-BDAP 204	4 Point Relay (NO) Module	BMX DRA 0804T	8 point relay outputs 125 VDC	O.K. 4 relay on Compact 8 on M340.	990 XSM00203
	AS-BDAP 208	8 Point Relay (NO) Module	BMX DRA 0805	8 point relay outputs	O.K.	990 XSM00206
	AS-BDAP 258	8 Point Relay (NO) Module	BMX DRA 0805H	8 point relay outputs	O.K. But Extended temperature differences	990 XSM00206
	AS-BDAP 258C	24 VDC 8 Point Relay (NO) Module, ext temp + Coated	BMX DRA 0805H	8 point relay outputs	O.K. Temperature limitation where 0 to + 60 °C versus - 40 to + 70 °C and the BMXDRA0805H.	990 XSM00206
	AS-BDAP 209	120 VAC 8 Point 1A Output Module	BMX DAO 1605	16 point output 110 VAC to 230 VAC	Less amperage available. BMXDAO1605 is limited to 600 mA vs. 1A for AS-BDAP 210 AS-BDAP210 nominal voltage goes down to 85 V vs. 100 V for BMXDAO1605	990 XSM00204
	AS-BDAP 210	24-230 VAC 8 Point Output Module	BMX DAO 1605	16 point output 110 VAC to 230 VAC	Less amperage available. BMXDAO1605 is limited to 600 mA vs. 1A for AS-BDAP210. AS-BDAP 210 nominal voltage goes down to 85 V vs. 100 V for BMXDAO1605	990 XSM00204
	AS-BDAP 212	24 VDC 8 Point Input/4 Point Output 2A	BMX DDM 16025	8 point 24 VDC input + 8 point relay output	Compact 2 groups of 2 outputs, M340 1 group of 8. So difference inputs isolation issue	990 XSM00205
	AS-BDAP 252	24 VDC 8 Point Input/4 Point Output 2A	BMX DDM 16025H	8 point 24 VDC input + 8 point relay output	Compact 2 groups of 2 outputs, M340 1 group of 8. So difference inputs isolation issue Extended temperature differences	990 XSM00205
	AS-BDAP 216	24 VDC 16 Point Output Module	BMX BMX DDO 1602	16 point 24 VDC output	Compact is 2 groups of 8, M340 1 group of 16. So difference inputs isolation	990 XSM00206
	AS-BDAP 256	24 VDC 16 Point Output Module	BMX BMX DDO 1602H	16 point 24 VDC output	Compact is 2 groups of 8, M340 1 group of 16. So difference inputs isolation Extended temperature differences	990 XSM00206
	AS-BDAP 217	5-24 VDC 16 Point Output Module	BMX BMX DDO 1612	16 point 24 VDC output sink	Response time is slightly slower. BMXDDO1612 at 1.2 ms versus <1 ms for AS-BDAP217. Also Compact is 2 groups of 8, M340 1 group of 16.	990 XSM00206
	AS-BDAP 218	24-240 VAC 16 Point Output Module	BMX DAO 1605	16 point output 110 VAC to 230 VAC	Less amperage available. BMXDAO1605 is limited to 600 mA vs. 1 A for AS-BDAP210 AS-BDAP 210 nominal voltage goes down to 24 V vs. 100 V for BMXDAO1605. If 24 V is needed select a different module.	990 XSM00202
	AS-BDAP 211	120 VAC Mixed Press and Stamp Module, Inputs controlling Outputs	–	–	None	None
Digital input/output	AS-BDAP 220	24 VDC 8 Point Input/ Output Module 2A	BMX DDM16022	8 point 24 VDC input + 8 point 24 VDC output	BMXDDM16022 is limited to 0.625 A per channel versus AS-BDAP220 2 A. Also response time is 1.2 ms versus < 1 ms for AS-BDAP220	990 XSM00207
	AS-BDAP 250	24 VDC 8 Point Input/ Output Module	BMX DDM16022H	8 point 24 VDC input + 8 point 24 VDC output	BMXDDM16022 is limited to 0.625 A per channel versus AS-BDAP250 2 A and is not conformally coated. Also response time is 1.2 ms versus < 1 ms for AS-BDAP220. BMXDDM16022 is 0 to + 60 °C versus - 40 to + 70 °C for AS-BDAP250C.	990 XSM00207
	AS-BDAP 250C	24 VDC 8 Point Input/ Output Module, ext temp + Coated	BMX DDM16022H	8 point 24 VDC input + 8 point 24 VDC output	BMXDDM16022 is limited to per channel versus AS-BDAP250 2 A. Also response time is 1.2 ms versus <1 ms for AS-BDAP220. DDM16022 is 0 to + 60 °C versus - 40 to + 70 °C for AS-BDAP250C.	990 XSM00207
	AS-BDAP 212	24 VDC 8 inputs 4 outputs	BMX DDM 16025	8 point 24 VDC input + 8 point relay output	Compact 2 groups of 2 outputs, M340 1 group of 8. So difference inputs isolation.	990 XSM00205
	AS-BDAP 252	24 VDC 8 inputs 4 outputs	BMX DDM 16025H	8 point 24 VDC input + 8 point relay output	BMXDDM16025 is 0 to + 60 °C versus - 40 to + 70 °C. Compact 2 groups of 2 outputs, M340 1 group of 8. So difference inputs isolation.	990 XSM00205
	AS-BDAP 252C	24 VDC 8 inputs 4 outputs, ext temp + Coated	BMX DDM 16025H	8 point 24 VDC input + 8 point relay output	BMXDDM16025 is 0 to + 60 °C versus - 40 to + 70 °C. Compact 2 groups of 2 outputs, M340 1 group of 8. So difference inputs isolation.	990 XSM00205
	AS-BDAP 253	110 VDC 8 inputs 4 outputs	BMX DDM 16025H	8 point 24 VDC input + 8 point relay output	1) Compact inputs 110 VDC, M340 24 VDC 2) Compact 2 groups of 2 outputs, M340 1 group of 8. a) isolation issue b) 4 unused references,	None
	AS-BDAP 253C	110 VDC 8 inputs 4 outputs, ext temp + Coated	BMX DDM 16025H	8 point 24 VDC input + 8 point relay output	1) Compact inputs 110 VDC, M340 24 VDC 2) Compact 2 groups of 2 outputs, M340 1 group of 8. a) isolation issue b) 4 unused references	None
	AS-BDAP 292	60 VDC 8 Inputs 4 outputs	–	–	No exact replacement but contact Schneider Electric Technical support for workarounds.	None

Modicon M340 automation platform

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Compact modules/M340 modules compatibility

Type of module	Compact Module reference	Comment	M340 Module reference	Comment	M340 Compatibility	Quick Wiring Adapter reference
Analog input	AS-BADU 204	4 Channel, ± 0,5 V, Register, PT100, 11 Bit	BMX ART 0414	Analog 4 channel TC/RTD Isolated inputs	O.K., but ± 0.5V missing, also M340 has Channel to Channel and Channel to Bus Isolation	None
	AS-BADU 205	4 Channel Register Input	BMX AMI 0410	Analog 4 channel Current/ Voltage Input Isolated	O.K. Scaling differences	990 XSM00208
	AS-BADU 205	4 Channel Register Input	BMX AMM0600	Analog 4 channel Current/ voltage input non-isolated and 2 channel Current/ voltage output non-isolated	O.K. Scaling differences	990 XSM00209
	AS-BADU 206	4 Channel Register Input isolated	BMX AMI 0410	Analog 4 channel Current/ Voltage Input Isolated	O.K, however M340 does not have ± 1V range.	990 XSM00210
	AS-BADU 206	4 Channel Register Input isolated	BMX AMM0600	Analog 4 channel Current/ voltage input non-isolated and 2 channel Current/ voltage output non-isolated	O.K, however M340 does not have ± 1V range. No isolation	990 XSM00211
	AS-BADU 210	4 Channel Voltage/Current Input isolated	BMX AMI 0410	Analog 4 channel Current/ Voltage Input Isolated	O.K. Scaling differences M340 does not have all voltage ranges matched	990 XSM00210
	AS-BADU 210	4 Channel Voltage/Current Input isolated	BMX AMM0600	Analog 4 channel Current/ voltage input non-isolated and 2 channel Current/ voltage output non-isolated	O.K. Scaling differences M340 does not have all voltage ranges matched No isolation	990 XSM00211
	AS-BADU 211	8 Channel Analog Input Module Thermo	BMX ART 0814	Analog 8 channel TC/RTD Isolated inputs	O.K. M340 missing 2, 5, or 10 V input capability or 4-20 mA , ± 20 mA and missing external 24 V	None
	AS-BADU 212	8 Channel Analog Input Module Thermo	BMX ART 0814	Analog 8 channel TC/RTD Isolated inputs	O.K. M340 missing 2, 5, or 10 V input capability or 4-20 mA , ± 20 mA and missing external 24 V	None
	AS-BADU 214	4/8 Channel Multi Range Analog/Digital Input	BMX ART 0414	Analog 4 channel TC/RTD Isolated inputs	M340 missing Voltage range 0 - 10 V, 1 to 5, 2 to 10. and no loop capability.	None
	AS-BADU 216	4/8 Channel Thermocouple isolated	BMX ART 0814	Analog 8 channel TC/RTD Isolated inputs	OK	None
	AS-BADU 254	4 Channel Register Input	BMX AMI 0410H	Analog 4 channel Current/ Voltage Input Isolated	Ok, and M340 has CH/CH isolation and CH/Bus where Compact has none. Extended temperature differences	None
	AS-BADU 254	4 Channel Register Input	BMX AMM0600H	Analog 4 channel Current/ Voltage input and 2 channel Current Voltage Output	Ok. M340 has 4 inputs and 2 outputs. Extended temperature differences	None
	AS-BADU 254C	4 Channel Register Input, ext temp + Coated	BMX AMI 0410H	Analog 4 channel Current/ Voltage Input Isolated	Ok, and M340 has CH/CH isolation and CH/Bus where Compact has none. Extended temperature differences	None
	AS-BADU 254C	4 Channel Register Input, ext temp + Coated	BMX AMM0600H	Analog 4 channel Current/ Voltage input and 2 channel Current Voltage Output	OK, M340 has 4 inputs and 2 outputs. With no isolation Extended temperature differences	None
	AS-BADU 256	4 Channel Register Input Isolated	BMX AMI 0410H	Analog 4 channel Current/ Voltage Input Isolated	OK but Extended temperature differences	None
	AS-BADU 256	4 Channel Register Input Isolated	BMX AMM0600H	Analog 4 channel Current/ Voltage input and 2 channel Current Voltage Output	OK, M340 has 4 inputs and 2 outputs. With no isolation Extended temperature differences	None
	AS-BADU 256C	4 Channel Register Input Isolated, ext temp + Coated	BMX AMI 0410H	Analog 4 channel Current/ Voltage Input Isolated	OK but Extended temperature differences	990 XSM00210
	AS-BADU 256C	4 Channel Register Input Isolated, ext temp + Coated	BMX AMM0600H	Analog 4 channel Current/ Voltage input and 2 channel Current Voltage Output	OK M340 has 4 inputs and 2 outputs with no isolation	990 XSM00211
	AS-BADU 257	8 Channel Thermocouple	BMX ART 0814H	Analog 8 channel TC/RTD Isolated inputs	Ok but extended temperature differences	None
	AS-BADU 257C	8 Channel Thermocouple, ext temp + Coated	BMX ART 0814H	Analog 8 channel TC/RTD Isolated inputs	Ok but extended temperature differences	None

Green color with no comments reflect full functional equivalent of M340 module for Compact module.
Green color with comment reflect full functional equivalent with differences notes. Check with your application.
Orange color indicates that inputs most cases the M340 module completely replaces the Compact module but differences are noted. For example maxi current per point. Check with your application.
Red color indicates that there are no direct replacements but there are workarounds. Please consult Schneider Electric for assistance.

Compact modules/M340 modules compatibility

Type of module	Compact Module reference	Compact Module Comment	M340 Module reference	M340 Module Comment	M340 Compatibility	Quick Wiring Adapter reference
Analog output	AS-BDAU 202	2 Point AN Outputs, ± 10 V, ± 20 mA	BMX AMO 0210	Analog 2 channel Current/ Voltage Output Isolated	M340 has no negative 20 mA capability.	990 XSM00212
	AS-BDAU 204	4 Channel Analog Output,Opto-Isol.	BMX AMO 0210	Analog 2 channel Current/ Voltage Output Isolated	M340 does not support 0 to 1 V, 0 to 5 V, ± 1V. +-5 V ranges	None
	AS-BDAU 204	4 Channel Analog Output,Opto-Isol.	BMX AMO 0410	Analog 4 channel Current/ Voltage Output Isolated	M340 does not support 0 to 1 V, 0 to 5 V, ± 1V. +-5 V ranges	990 XSM00214
	AS-BDAU 208	8 Channel Register Output	–	–	No 8 point analog output Need to use two modules.	None
	AS-BDAU 252	2 Point AN Outputs, ± 10 V, ± 20 mA Extended Temperature	BMX AMO 0210H	Analog 2 channel Current/ Voltage Output Isolated	M340 has no negative 20 mA capability. Extended temperature differences	990 XSM00212
	AS-BDAU 252C	2 Point AN Outputs, ± 10 V, ± 20 mA , ext temp + Coated	BMX AMO 0210H	Analog 2 channel Current/ Voltage Output Isolated	M340 has no negative 20 mA capability. Extended temperature differences	990 XSM00212
Comm.	AS-BBKF 202	INTERBUS S Slave	–	–	No replacement	None
	AS-BBKF201-16	16 Word INTERBUS S Master	–	–	No replacement	None
	AS-BBKF201-64	64 Word INTERBUS S Master	–	–	No replacement	None
	CM900	Auto Interface	–	–	No replacement	None
Ser. Comm.	AS-BKOS260-24	24 Word Universal Comm	–	–	Contact Schneider Electric Technical support for clarification of the best fit. READ_VAR functionality might replace this.	None
	AS-BKOS260-64	64 Word Universal Comm	–	–	Contact Schneider Electric Technical support for clarification of the best fit. READ_VAR functionality might replace this.	None
	M7251	Programmable limit switch	–	–	No replacement, No Motion	None
	M7350	Resolver Decoder	–	–	No replacement, No Motion	None
Motion	AS-BMOT 201	Axis Motion Control Module Encoder	–	–	Contact Schneider Electric Technical support for clarification of the best fit.	None
	AS-BMOT 202	Axis Motion Control Module Resolver & Encoder	–	–	Contact Schneider Electric Technical support for clarification of the best fit.	None
Counter	AS-BFRQ 204	4 point Frequency Module	BMX EHC 0200	High Speed Counter 2 channel	No 5 V input. Also contact Schneider Electric Technical support for exact replacement	None
	AS-BFRQ 254C	4 point Frequency Module, ext temp + Coated	BMX EHC 0200H	High Speed Counter 2 channel	No 5 V input. Also contact Schneider Electric Technical support for exact replacement	None
	AS-BVIC200 VRC200	4 High Speed Pulse or 4 VRC Inputs	–	–	Contact Schneider Electric Technical support for clarification of the best fit.	None
	AS-BVIC205 CTR205	4 High Speed Pulse or 4 5V TTL Inputs	–	–	Contact Schneider Electric Technical support for clarification of the best fit.	None
	AS-BVIC212 CTR212	4 High Speed Pulse or 12 VDC Inputs	–	–	Contact Schneider Electric Technical support for clarification of the best fit.	None
	AS-BVIC224 CTR224	4 High Speed Pulse or 24 VDC Inputs	BMX EHC 0800	High Speed Counter 8 channel	Contact Schneider Electric Technical support for clarification of the best fit.	None
	AS-BZAE 201	High speed Counter/ Positioner (2 Relay)	BMX EHC 0200	High Speed Counter 2 channel	Counter 12 V O.K., no relay outputs, no 5V, no positioning	None
	AS-BZAE 204	4 Channel High speed Counter/Positioner	BMX EHC 0800	High Speed Counter 8 channel	O.K. No outputs	None
CPU	AS-B984-A145 up to E984-285		BMX P34 2020 + BMX CSP3020	–	Only 1 Modbus port on CPU. 2 port NOM serial module available.	None
	AS-P120 000	105...240 VAC inputs, 24 VDC 1.0A outputs	BMX CSP2000 / BMX CSP3500	–	–	None

Nota:
- Extended temperature modules for M340 have an H suffix at the end of the part number.
- The Modicon Compact PLC line had an extended temperature range of - 40 °C to + 70 °C. The M340 line has an extended temperature of - 25 °C to + 70 °C. Derating of temperature might apply inputs certain applications.
- As with any PLC migration even an exact module to module replacement might not yield the same results (due to scan time, etc).