

Sinking DC Input Modules

Specifications	1746-IB8	1746-IB16	1746-IB32	1746-IC16	1746-IH16 ⁽¹⁾	1746-ITB16
Voltage, Off-State Input, max.	5.0V DC			10V DC	20V DC	5V DC
Nominal Input Current	8 mA @ 24V DC		5.1 mA @ 24V DC	4.1 mA @ 48V DC	2.15 mA @ 125V DC 2.25 mA @ 132V DC	8 mA @ 24V DC
Current, Off-State Input, Max.	1 mA		1.5 mA		0.8 mA	1.5 mA
Signal On Delay, Max	8 ms max		3 ms max	4 ms max	9 ms max	0.30 ms max
Signal Off Delay, Max	8 ms max		3 ms max	4 ms max	9 ms max	0.50 ms max

- (1) If the input module is connected in parallel with an inductive load, use surge suppression across the load to protect the input module from damage caused by reverse voltage. Refer to the SLC 500 Modular Hardware Style User Manual, publication [1747-UM011](#), for more information on surge suppression.
- (2) Maximum Points ON Simultaneously: 16 @ 146V DC and 30 °C (86 °F); 12 @ 146V DC and 50 °C (122 °F); 14 @ 132V DC and 55 °C (131 °F); 16 @ 125V DC and 60 °C (140 °F).

Sourcing DC Input Modules

Specifications	1746-IG16	1746-IV8	1746-IV16	1746-IV32	1746-ITV16
Number of inputs	16	8	16	32	16
Points per common	16	8	16	8	16
Voltage category	5V DC	24V DC	24V DC	24V DC	24V DC
Operating voltage range	4.5...5.5V DC ⁽¹⁾	10...30V DC		15...30V DC @ 50 °C (122 °F) 15...26.4V DC @ 60 °C (140 °F)	10...30V DC
Backplane current (mA) @ 5V	140 mA	50 mA	85 mA	50 mA	85 mA
Backplane current (mA) @ 24V	0 mA	0 mA	0 mA	0 mA	0 mA
Voltage, off-state input, max.	2...5.5V DC	5.0V DC	5.0V DC	5.0V DC	5.0V DC
Nominal input current	3.7 mA @ 5V DC	8 mA @ 24V DC		5.1 mA @ 24V DC	8 mA @ 24V DC
Current, off-state input, max.	4.1 mA	1 mA		1.5 mA	1.5 mA
Signal on delay, max	0.25 ms max	8 ms max		3 ms max	0.30 ms max
Signal off delay, max	0.50 ms max	8 ms max		3 ms max	0.50 ms max ⁽²⁾

(1) 50 mV peak-to-peak ripple (max.)

(2) Typical signal delay for this module: ON = 0.1 ms, OFF = 0.25 ms @ 24V DC.

Sinking DC Output Modules

Specifications	1746-OG16	1746-OV8	1746-OV16	1746-OV32	1746-OVP16 ⁽⁵⁾
Number of outputs	16	8	16	32	16
Points per common	16	8	16	16	16
Voltage category	5V DC	24V DC			
Operating voltage range	4.5...5.5V DC ⁽²⁾	10...50V DC		5...50V DC	20.4...26.4V DC
Backplane current (mA) @ 5V	180 mA	135 mA	270 mA	190 mA	250 mA
Backplane current (mA) @ 24V	0 mA	0 mA	0 mA	0 mA	0 mA

Cable Catalog Number	Standard Cable Lengths	Build to Order Available	Number of Conductors	Mating I/O Module Catalog Number
1492-CABLE ⁽¹⁾ G	0.5, 1.0, 2.5, 5.0 m	Yes	20	1746-OA16
1492-CABLE ⁽¹⁾ H	0.5, 1.0, 2.5, 5.0 m	Yes	20	1746-IB32, -IV32, -OB32, -OB32E, -OV32
1492-CABLE ⁽¹⁾ N	0.5, 1.0, 2.5, 5.0 m	Yes	20	1746-OW16, -OX8
1492-CABLE ⁽¹⁾ S	0.5, 1.0, 2.5, 5.0 m	Yes	20	1746-OX8

(1) Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the cat. no. (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: Cat. No. 1492-CABLE005N is for a 0.5 m cable that could be used to connect a catalog number 1492-IFM20D24N IFM to a Catalog Number 1746-OW16 I/O module. Build-to-order lengths are also available.

I/O Module-Ready Cables for 1746 Digital I/O Modules

The I/O module-ready cables have a pre-wired RTB on one end to plug onto the front of a Bulletin 1746 I/O module and 20 or 40 individually colored #18 AWG conductors on the other end. These cables provide the convenience of pre-wired connections at the I/O module end, while still allowing the flexibility to fieldwire to standard terminal blocks of your choice.

I/O Module-Ready Cables for 1746 Digital I/O Modules

Cable Catalog Number	Standard Cable Lengths	Build to Order Available	Number of Conductors	Mating I/O Module Catalog Number
1492-CABLE ⁽¹⁾ N3	1.0, 2.5, 5.0 m	Yes	40	1746-IB32, -IV32, -OB32, -OV32, -OB32E
1492-CABLE ⁽¹⁾ RTBB	1.0, 2.5, 5.0 m	Yes	20	1746-IB16, -IC16, -IG16, -IH16, -IN16, -ITB16, -ITV16, -IV16, -OB16, -OB16E, -OBP8, -OBP16, -OG16, -OV16, -OVP16
1492-CABLE ⁽¹⁾ RTBO	1.0, 2.5, 5.0 m	Yes	20	1746-OW16, -OX8
1492-CABLE ⁽¹⁾ RTBR	1.0, 2.5, 5.0 m	Yes	20	1746-IA16, -OA16, -OAP12, -IM16

(1) Cables are available in standard lengths of 0.5 m, 1.0 m, 2.5 m, and 5.0 m. To order, insert the code for the desired cable length into the cat. no. (005 = 0.5 m, 010 = 1.0 m, 025 = 2.5 m, and 050 = 5.0 m). Example: Cat. No. 1492-CABLE005N is for a 0.5 m cable that could be used to connect a catalog number 1492-IFM20D24N IFM to a Catalog Number 1746-OW16 I/O module. Build-to-order lengths are also available.

IMPORTANT The following I/O Modules do not have RTBs: 1746-IA4, 1746-IA8, 1746-IB8, 1746-IM4, 1746-IM8, 1746-IV8, 1746-OA8, 1746-OB8.