Allen-Bradley 1794-IB10XOB6 FLEX I/O Digital Input/Output Module Instruction Manual

Contents

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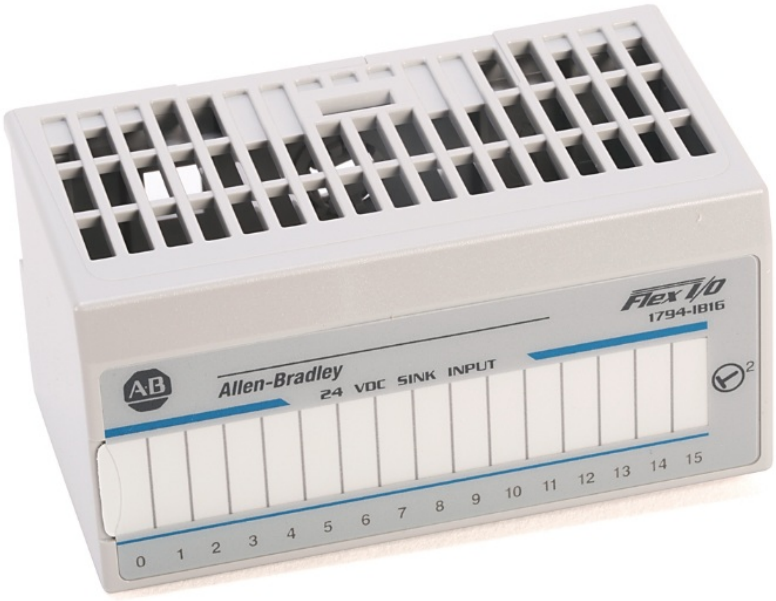

FLEX I/O Digital Input and Output Modules

Catalog Numbers 1794-IB10XOB6, 1794-IB16XOB16P

Summary of Changes

This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes.

Topic	Page
Updated template	throughout
Updated UK and European Hazardous Location Approval	4
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ATTENTION: Read this document and the documents listed in the Additional Resources section about installation, configuration and operation of this equipment before you install, configure, operate or maintain this

product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards. Activities including installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice. If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired

Environment and Enclosure

ATTENTION: This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in EN/IEC
60664-1), at altitudes up to 2000 m (6562 ft) without derating. This equipment is not intended for use in residential environments and may not provide adequate protection to radio communication services in such environments. This equipment is supplied as open-type equipment for indoor use. It must be mounted within an enclosure that is suitably designed for those specific environmental conditions that will be present and appropriately designed to prevent personal injury resulting from accessibility to live parts. The enclosure must have suitable flame-retardant properties to prevent or minimize the spread of flame, complying with a flame spread rating of 5V A or be approved for the
application if nonmetallic. The interior of the enclosure must be accessible only by the use of a tool. Subsequent sections of this publication may contain more information regarding specific enclosure type ratings that are required to comply with certain product safety certifications. In addition to this publication, see the following:

- Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1, for more installation requirements.
- NEMA Standard 250 and EN/IEC 60529, as applicable, for explanations of the degrees of protection provided by enclosures.

ATTENTION: Read this document and the documents listed in the Additional Resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards. Installation, adjustments, putting into service, use, assembly, disassembly, and maintenance are required to be carried out by suitably trained personnel in accordance with applicable code of practice. In case of malfunction or damage, no attempts at repair should be made. The module should be returned to the manufacturer for repair. Do not dismantle the module.

Prevent Electrostatic Discharge

ATTENTION: This equipment is sensitive to electrostatic discharge, which can cause internal damage and affect normal operation. Follow these guidelines when you handle this equipment:

- Touch a grounded object to discharge potential static.
- Wear an approved grounding wriststrap.
- Do not touch connectors or pins on component boards.
- Do not touch circuit components inside the equipment.
- Use a static-safe workstation, if available.
- Store the equipment in appropriate static-safe packaging when not in use.

Special Conditions for Safe Use

ATTENTION:

- This product is grounded through the DIN rail to chassis ground. Use zinc plated chromate-passivated steel

DIN rail to assure proper grounding. The use of
other DIN rail materials (for example, aluminum or plastic) that can corrode, oxidize, or are poor conductors, can result in improper or intermittent grounding.
Secure DIN rail to mounting surface approximately every 200 mm (7.8 in.) and use end-anchors appropriately.
Be sure to ground the DIN rail properly. Refer to
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1, for more information.

- Do not remove or replace a terminal base unit while power is applied. Interruption of the backplane can result in unintentional operation or machine motion.
- Do not remove or replace an Adapter Module while power is applied. Interruption of the backplane can result in unintentional operation or machine motion.
- If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

WARNING:

- When you insert or remove the module while backplane power is on, an electric arc can occur. This could cause an explosion in hazardous location installations.
  Be sure that power is removed or the area is nonhazardous before proceeding. Repeated electric arcing causes excessive wear to contacts on both the module
  and its mating connector. Worn contacts may create electrical resistance that can affect module operation.
- If you insert or remove the module while backplane power is on, an electric arc can occur. This could cause an explosion in hazardous location installations. Be
  sure that power is removed or the area is nonhazardous before proceeding.
- When used in a Class I, Division 2, hazardous location, this equipment must be mounted in a suitable enclosure with proper wiring method that complies with the
  governing electrical codes

WARNING: If you connect or disconnect wiring while the field-side power is on, an electrical arc can occur. This could cause an explosion in hazardous location
installations. Be sure that power is removed or the area is nonhazardous before proceeding.

Electrical Safety Considerations

ATTENTION:

- This equipment is certified for use only within the surrounding air temperature range of -20…55 °C (-4…131 °F). The equipment must not be used outside of this
  range.
- Use only a soft dry anti-static cloth to wipe down equipment. Do not use any cleaning agents.

UK and European Hazardous Location Approval
The following module is European Zone 2 approved: 1794-IB10XOB6.

The following applies to products marked II 3 G:

- Are Equipment Group II, Equipment Category 3, and comply with the Essential Health and Safety Requirements relating to the design and construction of such equipment given in Schedule 1 of UKEX and Annex II of EU Directive 2014/34/EU. See the UKEx and EU Declaration of Conformity at **rok.auto/certifications** for details.
- The type of protection is Ex ec IIC T3 Gc according to EN IEC 60079-0:2018, EXPLOSIVE ATMOSPHERES – PART 0: EQUIPMENT – GENERAL REQUIREMENTS, Issue Date 07/2018 and EN IEC 60079-7:2015+A1:2018, Explosive atmospheres. Equipment protection by increased safety “e”.
- Comply to Standard EN IEC 60079-0:2018, EXPLOSIVE ATMOSPHERES – PART 0: EQUIPMENT – GENERAL REQUIREMENTS, Issue Date 07/2018, EN IEC 60079-7:2015+A1:2018 Explosive atmospheres. Equipment protection by increased safety “e”, reference certificate number DEMKO 14 ATEX 1342501X and UL22UKEX2378X.
- Are intended for use in areas in which explosive atmospheres caused by gases, vapors, mists, or air are unlikely to occur, or are likely to occur only infrequently and for short periods. Such locations correspond to Zone 2 classification according to UKEX regulation 2016 No. 1107 and ATEX directive 2014/34/EU.

WARNING: Special Conditions for Safe Use

- This equipment is not resistant to sunlight or other sources of UV radiation.
- This equipment shall be mounted in an UKEX/ATEX/IECEx Zone 2 certified enclosure with a minimum ingress protection rating of at least IP54 (in accordancewith EN/IEC 60079-0) and used in an environment of not more than Pollution Degree 2 (as defined in EN/IEC 60664-1) when applied in Zone 2 environments. The enclosure must be accessible only by the use of a tool.
- This equipment shall be used within its specified ratings defined by Rockwell Automation.
- Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.
- This equipment must be used only with UKEX/ATEX/IECEx certified Rockwell Automation backplanes.
- Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product.
- Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.
- Earthing is accomplished through mounting of modules on rail.

IEC Hazardous Location Approval

The following applies to products marked with IECEx certification:

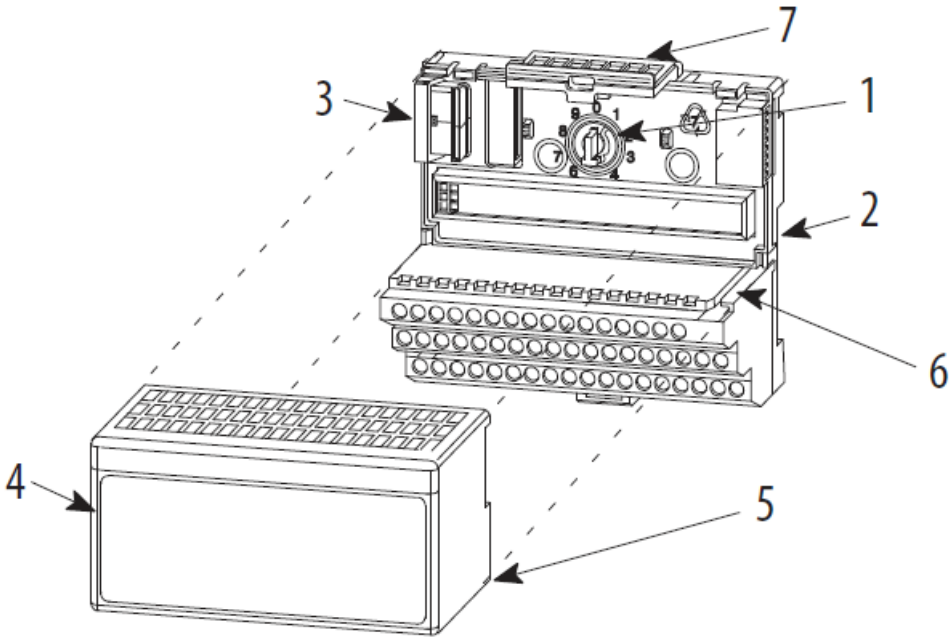
- Are intended for use in areas in which explosive atmospheres caused by gases, vapors, mists, or air are unlikely to occur, or are likely to occur only infrequently and for short periods. Such locations correspond to Zone 2 classification to IEC 60079-0.
- The type of protection is Ex ec IIC T3 Gc according to IEC 60079-0 and IEC 60079-7.
- Comply to Standards IEC 60079-0, Explosive atmospheres Part 0: Equipment – General requirements, Edition 7, Revision Date 2017, IEC 60079-7, 5.1 Edition revision date 2017, Explosive atmospheres – Part 7: Equipment protection by increased safety “e”, reference IECEx certificate number IECEx UL 14.0066X.

North American Hazardous Location Approval

The 1794-IB10XOB6 and 1794-IB16XOB16P modules are Hazardous Location approved

The following information applies when operating this equipment in hazardous locations:	
Products marked “CL I, DIV 2, GP A, B, C, D” are suitable for use in Class I Division 2 Groups A, B, C, D, Hazardous Locations and nonhazardous locations only. Each product is supplied with markings on the rating nameplate indicating the hazardous location temperature code. When combining products within a system, the most adverse temperature code (lowest “T” number) may be used to help determine the overall temperature code of the system. Combinations of equipment in your system are subject to investigation by the local Authority Having Jurisdiction at the time of installation.	
	WARNING: **Explosion Hazard –** • Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous. • Do not disconnect connections to this equipment unless power has been removed or the area is known to be nonhazardous. Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product. • Substitution of components may impair suitability for Class I, Division 2.

Overview



	Description		Description
1	Keyswitch	5	Alignment bar
2	Terminal base	6	Groove
3	Flexbus connector	7	Latching mechanism
4	Module		

Install Your Digital Input/Output Module
The FLEX™ I/O 1794-IB10XOB6 module mounts on a 1794-TB3 or 1794-TB3S terminal base. The 1794-IB16XOB16P module mounts on a 1794-TB32 or 1794-TB32S terminal base.

ATTENTION: During mounting of all devices, be sure that all debris (metal chips, wire strands, etc.) is kept from falling into the module. Debris that falls into the module could cause damage on power up.

1. Rotate the keyswitch (1) on the terminal base (2) clockwise to position 2 as required for this type of module.
2. Ensure that the Flexbus connector (3) is pushed all the way to the left to connect with the neighboring terminal base/adapter. You cannot install the module unless the connector is fully extended.
3. Make sure the pins on the bottom of the module are straight so they will align properly with the connector in the terminal base.
4. Position the module (4) with its alignment bar (5) aligned with the groove (6) on the terminal base.
5. Press firmly and evenly to seat the module in the terminal base unit. The module is seated when the latching mechanism (7) is locked into the module.

Connect Wiring for the 1794-IB10XOB6

1. Connect individual input and output wiring to numbered terminals on the 0…15 row (A) as indicated in Table 1.
2. Connect the associated +V DC power lead of the input device to the corresponding terminal on the 34…51 row (C) for each input as indicated in Table 1. (The +V power terminals of row (C) are internally connected together.)
3. Connect the associated input device common (3-wire devices only) and output device common to the corresponding terminals on the 16…33 row. (B) for each input and output as indicated in Table 1. (Commons are internally connected together.)
4. Connect +V DC power to terminal 34 on the 34…51 row (C).
5. Connect V DC common to terminal 16 on the 16…33 row (B).
6. If daisychaining power to the next terminal base, connect a jumper from terminal 51 (+V DC) on this base unit to terminal 34 on the next base unit.
7. If continuing DC common to the next base unit, connect a jumper from terminal 33 (common) on this base unit to terminal 16 on the next base unit.

Wiring Connections for 1794-IB10XOB6

Input[1]	Signal	Return	Supply

Sink input

Input 0	A-0	B-17	C-35
Input 1	A-1	B-18	C-36
Input 2	A-2	B-19	C-37
Input 3	A-3	B-20	C-38
Input 4	A-4	B-21	C-39
Input 5	A-5	B-22	C-40
Input 6	A-6	B-23	C-41
Input 7	A-7	B-24	C-42
Input 8	A-8	B-25	C-43

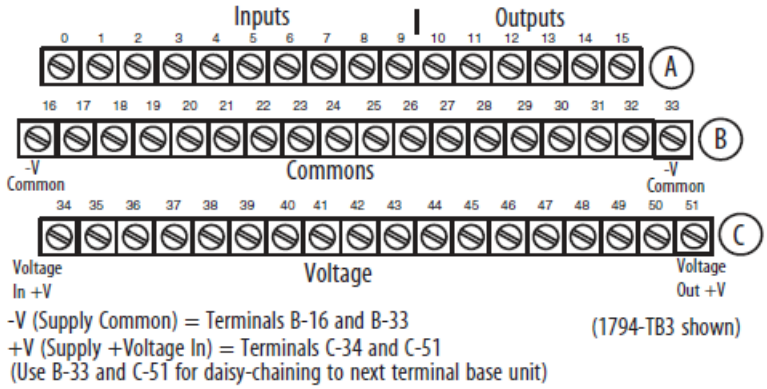
Input[1]	**Signal**	**Return**	**Supply**
Input 9	A-9	B-26	C-44

Source output

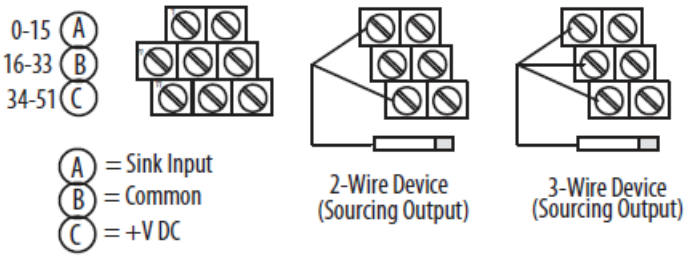
Output 0	A-10	B-27	–
Output 1	A-11	B-28	–
Output 2	A-12	B-29	–
Output 3	A-13	B-30	–
Output 4	A-14	B-31	–
Output 5	A-15	B-32	–
+V DC	C-34 to C-51 (internally connected together)		
Common	B-16 to B-33 (internally connected together)		

2-wire input devices use signal and supply terminals; 3-wire devices use signal, return, and supply terminal

1794-TB3 and 1794-TB3S Terminal Base Wiring for 1794-IB10XOB6



2 and 3-Wire Input Wiring for 1794-IB10XOB6



Connect Wiring for the 1794-IB16XOB16P

1. Connect individual input wiring (IN0 to IN15) to numbered terminals on the 0…15 row (A) as indicated in Table 2 on page 7.
2. Connect the associated power to the +V1 terminal (35, 37, 39 or 41) on the 34…51 row (C) as indicated in Table 2 on page 7.
3. Connect the associated common (-V1) for IN0 to IN15 to COM1 (terminal 36, 38, 40 or 42) on the 34…51 row (C).
4. Connect individual output wiring (OUT0 to OUT15) to terminals 17 to 32 on the 16…33 row (B) as indicated in Table 2 on page 7. (Note: Do not connect to terminals 16 or 33.)
5. Connect the associated power to the +V2 terminal (43, 45, 47 or 49) on the 34…51 row (C) as indicated in Table 2 on page 7.
6. Connect the associated common (-V2) for OUT0 to OUT15 to COM2 (terminal 44, 46, 48 or 50) on the 34…51 row (C).
7. If continuing input wiring to the next terminal base unit, connect a jumper from terminal 41(+V1) to the power terminal on the next base unit; connect a jumper from terminal 42 (COM1) to the common terminal on the next base unit.
8. If continuing output wiring to the next terminal base unit, connect a jumper from terminal 49 (+V2) to the power terminal on the next base unit; connect a jumper from terminal 50 (COM2) to the common terminal on the next base unit.

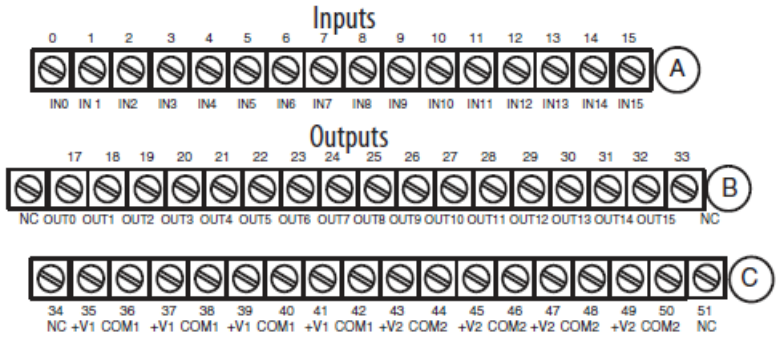
Wiring Connections for 1794-IB16XOB16P

Input	Signal	Return	Supply[1]
Input 0	A-0		
Input 1	A-1		
Input 2	A-2		
Input 3	A-3		
Input 4	A-4		
Input 5	A-5		
Input 6	A-6		
Input 7	A-7		

Input 8	A-8	V1 Return connected to terminals 36, 38, 40, and 42	+V1 connected to terminals 35, 37, 39, and 41
Input 9	A-9		
Input 10	A-10		
Input 11	A-11		
Input 12	A-12		
Input 13	A-13		
Input 14	A-14		
Input 15	A-15		
Output 0	B-17	V2 Return connected to terminals 44, 46, 48, and 50	+V2 connected to terminals 43, 45, 47, and 49
Output 1	B-18		
Output 2	B-19		
Output 3	B-20		
Output 4	B-21		
Output 5	B-22		
Output 6	B-23		
Output 7	B-24		
Output 8	B-25		
Output 9	B-26		
Output 10	B-27		
Output 11	B-28		
Output 12	B-29		
Output 13	B-30		
Output 14	B-31		
Output 15	B-32		
+V1 DC power	Power terminals 35, 37, 39, and 41		
Com1 DC return	Common terminals 36, 38, 40, and 42		
+V2 DC power	Power terminals 43, 45, 47, and 49		
Com2 DC return	Common terminals 44, 46, 48, and 50		

2-wire input devices use signal and supply terminals; 3-wire devices use signal, return, and supply terminal

1794-TB32 Terminal Base Wiring for 1794-IB16XOB16P



Configure Your Module

You configure your module by setting bits in the configuration word (word 3).

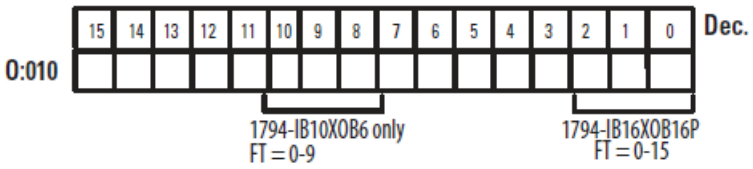
Image Table Memory Map for the 1794-IB10XOB6 Module

Dec	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
Oct	**17**	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
Read 1	Not used						I9	I8	I7	I6	I5	I4	I3	I2	I1	I0
Write 2	Not used										O5	O4	O3	O2	O1	O0
Write 3	Not used					FT			Not used							

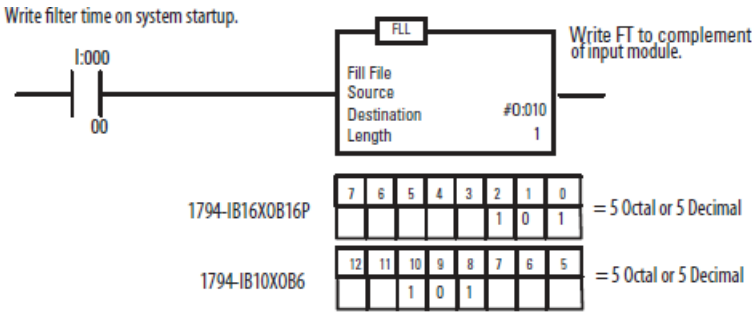
Dec	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
Oct	**17**	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
Read 1	I15	I14	I13	I12	I11	I10	I9	I8	I7	I6	I5	I4	I3	I2	I1	I0
Write 2	O15	O14	O13	O12	O11	O10	O9	O8	O7	O6	O5	O4	O3	O2	O1	O0
Write 3	Not used													Input filter FT 0 …15		

Set the Input Filter Time

To set the input filter time, set the associated bits in the output image (complementary word) for the module.



For example, to increase the Off to On filter time to 8 ms for all inputs at address rack 1, module group 0, in configuration word 3, set bits as shown.



Input Filter Time

Bits[1]			**Description**	
02	**01**	**00**	**Filter Time for Inputs**	**Off to On/On to Off**
10	**09**	**03**		
0	0	0	Filter time 0	0.25 ms
0	0	1	Filter time 1	0.5 ms
0	1	0	Filter time 2	1.0 ms
0	1	1	Filter time 3	2.0 ms
1	0	0	Filter time 4	4.0 ms
1	0	1	Filter time 5	8.0 ms
1	1	0	Filter time 6	16.0 ms
1	1	1	Filter time 7	32.0 ms

Specifications

Attribute	**1794-IB10XOB6**	**1794-IB16XOB16P**
Number of inputs, current, sinking	10	16
Number of outputs, current, sourcing	6	16
Recommended terminal base unit	1794-TB2, 1794-TB3,1794-TB3S, 1794-TB3K, 1794-TB3SK, 1794-TBKD, 1794-TB37DS	1794-TB32, 1794-TB32S, 1794-TB62DS, 1794-TB62EXD4X15
On-state voltage, input Min Nom Max	10V DC 24V DC 31.2V DC	
On-state current, input Min Nom Max	2.0 mA 8.0 mA @ 24V DC 11.0 mA	2.0 mA 8.8 mA @ 24V DC 12.1 mA

Off-state voltage, input, max	5V DC	
Off-state current, input, max	1.5 mA	
Nominal input impedance	4.8 kΩ	2.5 kΩ
Input filter time[1] Off to On On to Off	See Table 3 on page 8	
On-state voltage range, output Min Nom Max	10V DC 24V DC 31.2V DC (see Figure 1 on page 11)	
On-state current, output Min, per channel Nom, per channel Max, per module	1.0 mA 2.0 A 10 A	1.0 mA 0.5 A 8 A
Off-state voltage, output, max	31.2V DC	
Output current rating per output per module, max	2 A 10 A	0.5 A 8 A
Surge current	4 A for 50 ms, repeatable every 2 s	1.5 A for 50 ms, repeatable every 2 s
Off-state leakage current, max	0.5 mA	
On-state voltage drop, max	1V DC @ 2A 0.5V DC @ 1 A	0.5V DC @ 1 A
Output signal delay, max[2] Off to On On to Off	0.5 ms 1.0 ms	
Isolation voltage	50V (continuous), Basic Insulation Type Type tested @ 1250V AC for 60 s, between field side and system No isolation between individual channels	50V (continuous), Basic Insulation Type Tested @ 2121V DC for 1 s, system to I/O and inputs to outputs No isolation between individual channels

Flexbus current	50 mA	80 mA
Power dissipation, max	6.0 W @ 31.2V DC	7.0 W @ 31.2V DC
Thermal dissipation, max	20.3 BTU/hr @ 31.2V DC	23.9 BTU/hr @ 31.2V DC
Fusing	Module outputs are not fused. Fusing is recommended. If fusing is desired, you must supply external fusing. Use SAN-O MQ4-3A or Littelfuse 235-003 fuses.	Outputs are electronically protected

1. Input Off to On filter time is the time from a valid input signal to recognition by the module. Input On to Off filter time is time from the input signal dropping below the valid level to recognition by the module.
2. Output Off to On or On to Off delay is the time from the module issuing an output on or off until the output actually turns on or off.

General Specifications

Attribute	**1794-IB10XOB6**	**1794-IB16XOB16P**
Terminal base screw torque	Determined by installed terminal base	
Dimensions, approx. (H x W x D)	94 x 94 x 69 mm (3.7 x 3.7 x 2.7 in.)	
Input indicators (field side indication)	10 yellow status indicators	16 yellow status indicators
Output Indicators (field side indication)	6 yellow status indicators	
External DC power voltage range	10…31.2V DC (includes 5% AC ripple)	
External DC power supply current range	8 m A @ 10V DC 15 mA @ 19.2V DC 19 mA @ 24V DC 25 mA @ 31.2V DC	78 mA @ 10V DC
North American temp code	T3C	
IECEx temp code	T3	–
UKEX/ATEX temp code	T3	
Keyswitch position	2	
Enclosure type rating	None (open-style)	
Weight, approx.	85 g (3.00 oz)	98 g (3.46 oz)
Wire size	Determined by installed terminal base	
Wiring category(1)	2 – on signal ports	

(1) Use this Conductor Category information for planning conductor routing as described in the appropriate

System Level Installation Manual. Also see Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1, for more information.

Environmental Specifications

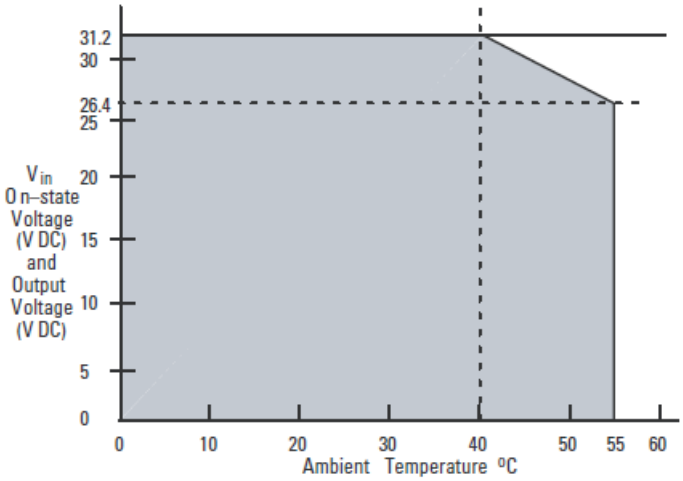
Attribute	1794-IB10XOB6	1794-IB16XOB16P
Operating temperature	IEC 60068-2-1 (Test Ad, operating cold), IEC 60068-2-2 (Test Bd, operating dry heat), IEC 60068-2-14 (Test Nb, operating thermal shock):	
	-20…+55 °C (-4…+131 °F)	0…55 °C (32…131 °F)
Storage temperature	IEC 60068-2-1 (Test Ab, unpackaged nonoperating cold), IEC 60068-2-2 (Test Bb, unpackaged nonoperating dry heat), IEC 60068-2-14 (Test Na, unpackaged nonoperating thermal shock): -40…+85 °C (-40…+185 °F)	
Temperature, surrounding air, max	55 °C (131 °F)	
Relative humidity	IEC 60068-2-30 (Test Db, unpackaged damp heat): 5…95% noncondensing	
Vibration	IEC60068-2-6 (Test Fc, operating): 5 g @ 10…500 Hz	
Shock	IEC60068-2-27 (Test Ea, unpackaged shock): Operating 30 g Nonoperating 50 g	
Emissions	IEC 61000-6-4	
ESD immunity	IEC 61000-4-2: 6 kV contact discharges 8 kV air discharges	
Radiated RF immunity	IEC 61000-4-3: 10V/m with 1 kHz sine-wave 80% AM from 80…6000 MHz	
EFT/B immunity	IEC 61000-4-4: ±3 kV @ 5 kHz on power ports ±2 kV @ 5 kHz on signal ports	IEC 61000-4-4: ±2 kV @ 5 kHz on power ports ±2 kV @ 5 kHz on signal ports
Surge transient immunity	IEC 61000-4-5: ±1 kV line-line(DM) and ±2 kV line-earth(CM) on signal ports	
Conducted RF immunity	IEC 61000-4-6: 10V rms with 1 kHz sine-wave 80% AM from 150 kHz…80 MHz	

Certifications

Certifications (When Product Is Marked)[1]	Value
c-UL-us	**(1794-IB10XOB6 only)** UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E65584. UL Listed for Class I, Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E194810. **(1794-IB16XOB16P only)** UL Listed Industrial Control Equipment, certified for US and Canada. See UL File E322657. UL Listed for Class I, Division 2 Group A,B,C,D Hazardous Locations, certified for U.S. and Canada. See UL File E334470.
UK and CE	UK Statutory Instrument 2016 No. 1091 and European Union 2014/30/EU EMC Directive, compliant with: EN 61326-1; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity EN 61131-2; Programmable Controllers EN 61000-6-4; Industrial Emissions UK Statutory Instrument 2012 No. 3032 and European Union 2011/65/EU RoHS, compliant with: EN 63000; Technical documentation
Ex	UK Statutory Instrument 2016 No. 1107 and European Union 2014/34/EU ATEX Directive, compliant with: EN IEC 60079-0; General Requirements EN IEC 60079-7; Explosive Atmospheres, Protection “e” II 3 G Ex ec IIC T3 Gc DEMKO 14 ATEX 1342501X UL22UKEX2378X
TÜV	**(1794-IB10XOB6 only)** TÜV Certified for Functional Safety: up to and including SIL 2
KC	Korean Registration of Broadcasting and Communications Equipment, compliant with: Article 58-2 of Radio Waves Act, Clause 3
EAC	Russian Customs Union TR CU 020/2011 EMC Technical Regulation
IECEx	IECEx System, compliant with: IEC 60079-0; General Requirements IEC 60079-7; Explosive Atmospheres, Protection “e” Ex ec IIC T3 Gc IECEx UL 14.0066X
CCC	CNCA-C23-01 CNCA-C23-01 CCC Implementation Rule Explosion-Proof Electrical Products

Morocco	Arrêté ministériel n° 6404-15 du 29 ramadan 1436
RCM	Australian Radiocommunications Act, compliant with: EN 61000-6-4; Industrial Emissions

(1) See the Product Certification link at **rok.auto/certifications** for Declaration of Conformity, Certificates, and other certification details.
Figure 1 – Derating Curve for 1794-IB16XOB16P



The area within the curve represents the safe operating range for the module under various conditions of user supplied DC supply voltages and ambient temperatures. = All mounting positions (including normal horizontal, vertical, inverted horizontal) safe operating range

Rockwell Automation Support

Use these resources to access support information.

Technical Support Center	Find help with how-to videos, FAQs, chat, user forums, and product notification updates.	**rok.auto/support**
Knowledgebase	Access Knowledgebase articles.	**rok.auto/knowledgebase**
Local Technical Support Phone Numbers	Locate the telephone number for your country.	**rok.auto/phonesupport**
Literature Library	Find installation instructions, manuals, brochures, and technical data publications.	**rok.auto/literature**
Product Compatibility and Download Center (PCDC)	Download firmware, associated files (such as AOP, EDS, and DTM), and access product release notes.	**rok.auto/pcdc**

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Waste Electrical and Electronic Equipment (WEEE)
At the end of life, this equipment should be collected separately from any unsorted municipal waste. Rockwell Automation maintains current product environmental compliance information on its website at **rok.auto/pec**.

Documents / Resources

	Allen-Bradley 1794-IB10XOB6 FLEX I/O Digital Input/Output Module [pdf] Instruction Manual 1794-IB10XOB6 FLEX I O Digital Input Output Module, 1794-IB10XOB6, FLEX I O Digital Input Output Module, Digital Input Output Module, Input Output Module

References

- Product Certifications | Rockwell Automation
- Publication Feedback Form | Rockwell Automation
- Rockwell Automation Tech Support ... 24 x 7 around the globe!
- Literature Library | Rockwell Automation
- Product Compatibility & Download Center from Rockwell Automation
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