

IC676PBI016-EA

Profibus Input Block

Accepts sixteen 24 VDC digital input signals

PRODUCT SNAPSHOT

BRAND

GE

FAMILY

GE VersaMax IP distributed I/O system

PART

IC676PBI016-EA

PRODUCT TYPE

Profibus Input Block

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PRODUCT OVERVIEW

Accepts sixteen 24 VDC digital input signals

1

Accepts sixteen 24 VDC digital input signals

2

Connects to PROFIBUS-DP through M12 bus connectors

3

Provides IP67 protection and M12 sensor connections

4

Reports bus, supply, overload and input-channel status

SYSTEM COMPONENTS

PROFIBUS-DP master and documented network configuration

24 VDC module and sensor supplies within the specified range

M12 bus, power and sensor cables with functional-earth connection

protective caps and the required network termination arrangement

TECHNICAL NOTE

The -EA suffix is retained from exact product-label evidence; the functional and electrical data are taken from GE publication GFK-2293 for base catalog IC676PBI016. Do not assign undocumented suffix-specific electrical differences. Set the 1-99 station address before power-up, preserve FE shielding and cap every unused connector required for IP67 protection.



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TECHNICAL DATA

PARAMETER	VALUE
Complete order identity	IC676PBI016-EA
Base catalog number	IC676PBI016
Product family	VersaMax IP
Module function	16-point digital input module

PARAMETER	VALUE
Network role	PROFIBUS-DP slave
Bus connection	M12 BUS IN and BUS OUT connectors
Sensor connection	M12; supports 2-, 3- and 4-wire sensors
Nominal module voltage	24 VDC

ENGINEERING NOTE

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RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
General Electric IC200UDR005-BD	VersaMax Micro 28-point controller	View General Electric IC200UDR005-BD page
General Electric IC200CHS022L	VersaMax compact I/O carrier	View General Electric IC200CHS022L page
General Electric IC200UEX211	VersaMax Micro discrete expansion module	View General Electric IC200UEX211 page
General Electric IC200ALG261	VersaMax analog input module	View General Electric IC200ALG261 page

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APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Machine sensor collection

Accepts sixteen 24 VDC digital input signals

IP67 distributed input stations

Connects to PROFIBUS-DP through M12 bus connectors

PROFIBUS-DP remote I/O

Provides IP67 protection and M12 sensor connections

Field diagnostic monitoring

Reports bus, supply, overload and input-channel status

PRODUCT PRECAUTIONS

- 1 Verify the full IC676PBI016-EA label and assigned PROFIBUS station before work.
- 2 Place the PROFIBUS master and connected machine process in the approved maintenance state.
- 3 Isolate the module and sensor supplies before disconnecting any M12 power or input cable.
- 4 Record the X10/X1 station address, BUS IN/OUT order, input assignments and current LED state.
- 5 Maintain the FE and shield connections and protect every opened M12 interface from contamination.
- 6 Confirm 18-30 VDC supply polarity and sensor loading before reconnecting the module.
- 7 Apply power only after setting the required 1-99 station address because changes are accepted at start-up.
- 8 Verify cyclic two-byte input data, all sixteen channel states and diagnostic telegrams before release.

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Applica

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ENGINEER FAQ

Q1 How should the full IC676PBI016-EA identity be handled during replacement?

Retain the complete IC676PBI016-EA order identity from the product label. Apply GFK-2293 functional data to base catalog IC676PBI016, but do not infer an undocumented electrical meaning for the -EA suffix.

Q2 When does IC676PBI016-EA accept a newly selected PROFIBUS station address?

Set the X10 and X1 rotary switches to an address from 1 to 99 before energizing the module; GFK-2293 states that a new address is accepted only at power-up.

Q3 What does the BF LED indicate on the IC676PBI016-EA input block?

A red BF indication can mean no cyclic data exchange, a missing PROFIBUS connection, an offline master, an address or configuration mismatch, synchronization or parameterization activity, or an expired timeout.

Q4 How does IC676PBI016-EA report a sensor-supply overload or short circuit?

The module electronically switches off the affected sensor supply and sends diagnostic information to the PROFIBUS master; diagnostic byte 7 also reports sensor-supply undervoltage and overload status.

Q5 What network hardware rule applies above 3 Mbaud for IC676PBI016-EA?

The PROFIBUS interface supports up to 12 Mbaud, but GFK-2293 requires T-pieces with integrated series inductance when the transmission rate is above 3 Mbaud.

Q6 How is IP67 protection maintained on IC676PBI016-EA?

Connect functional earth as specified, tighten the M12 bus, power and sensor connections, and fit the documented male or female protective caps to every unused connector.

Q7 How are the sixteen IC676PBI016-EA inputs represented in cyclic process data?

The module returns 16 bits in two input bytes: byte 0 carries inputs 16 through 9 and byte 1 carries inputs 8 through 1 in the documented bit order.

Q8 Which electrical checks belong in IC676PBI016-EA commissioning?

Confirm an 18-30 VDC module supply, correct polarity, sensor-supply loading within 75 mA per channel and 1.2 A per module, and input switching consistent with low below 5 V and high above 11 V.

SOURCE GE VersaMax IP 16 Point Input Module datasheet | GFK-2293, January 2004

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