

II5910

II5910 Inductive Sensor

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PRODUCT SNAPSHOT

BRAND
IFM

FAMILY
IFM inductive sensors

PART
II5910

DOCUMENT STATUS
Controlled engineering copy

APTER POWER

WHATSAPP / PHONE

+86 180 3023 5313

WEBSITE

www.apterpower.com



PRODUCT OVERVIEW

IFM II5910 provides non-contact metal target detection with a PNP normally-open output for a documented IFM inductive sensors installation.



15 mm inductive sensing range



PNP normally-open switching output



10 to 32 V DC operation



IP67 flush-mountable M30 housing

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ABB MB510

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ABB NISA-03

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ABB NTAC-02

9

Siemens 6SL3246-0BA22-1FA0

SYSTEM COMPONENTS

DOCUMENTED COMPONENT	ROLE IN SYSTEM
Proximity probe	Matched extension cable
Proximitor Sensor	AISI 4140 target

ENGINEERING CONTEXT

The component remains matched to its documented host position, connections and approved configuration. Commissioning restores that architecture and verifies the intended function under controlled conditions.

TECHNICAL DATA

PARAMETER	VALUE
Product type	Inductive sensor
Type designation	IIA3015BBPKG/US-104
Electrical design	PNP
Output function	Normally open
Sensing range	15 mm
Real sensing range	15 mm +/- 10%
Operating distance	0 to 12.15 mm
Operating voltage	10 to 32 V DC
Current consumption	10 mA
Maximum output voltage drop	2.5 V DC
Continuous output current	200 mA
Switching frequency	100 Hz

PARAMETER	VALUE
Reverse-polarity protection	Yes
Short-circuit protection	Yes, non-latching
Overload protection	Yes
Ambient temperature	-40 to 70 degC
Degree of protection	IP67
Mounting	Flush mountable
Thread designation	M30 x 1.5
Tightening torque	50 Nm
Connection	M12 connector, A-coded, 3 gold-plated contacts
Switching indication	4 yellow LEDs
EMC emission	EN 55011 class B
MTTF	1083 years

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TECHNICAL NOTE

Install II5910 only in the documented IFM inductive sensors position and preserve its exact wiring, interfaces and configuration. After controlled energization, verify diagnostics and non-contact metal target detection with a PNP normally-open output before service release.

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Machine presence detection

Detects metal targets without mechanical contact at the documented switching distance.

Factory position confirmation

Provides a PNP normally-open signal to a compatible control input.

Conveyor and fixture sensing

Supports protected M30 mounting with the specified target clearance.

Sensor replacement commissioning

Restores polarity, gap, connector seating and controlled switching verification.

PRODUCT PRECAUTIONS

1

Confirm the II5910 and IIA3015BBPKG/US-104 markings.

2

Place the machine and input channel in the approved maintenance state.

3

Isolate the 10 to 32 V DC sensor circuit before disconnection.

4

Record target material, sensing gap, connector pinout and input assignment.

5

Keep the sensor flush-mounted and within the 0 to 12.15 mm operating distance.

6

Tighten the M30 mounting hardware without exceeding 50 Nm.

7

Restore the M12 connection and review the four yellow switching LEDs.

8

Exercise the target under controlled conditions and verify the PLC input response.

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ENGINEER FAQ

Q1 Which PNP normally-open switching output is provided by IFM II5910?

A PNP normally-open switching output.

Q2 What nominal sensing range and operating distance apply to IFM II5910?

The nominal sensing range is 15 mm and the documented operating distance is 0 to 12.15 mm.

Q3 What M12 supply voltage and polarity checks are required for IFM II5910?

Provide 10 to 32 V DC with correct M12 polarity.

Q4 How much continuous output load can IFM II5910 switch?

The continuous switching-output rating is 200 mA.

Q5 What does the documented 100 Hz switching frequency mean for IFM II5910?

The documented DC switching frequency is 100 Hz.

Q6 Why must IFM II5910 be installed flush using its M30 x 1.5 threaded housing?

Install it flush using the M30 x 1.5 threaded housing.

Q7 Which IP67 and operating-temperature limits apply to IFM II5910?

Operate from -40 to 70 degC within IP67 protection conditions.

Q8 Which target-gap, LED and controller-input checks confirm commissioning of IFM II5910?

Verify target gap, yellow switching LEDs and the assigned controller input under controlled motion.

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SOURCE IFM II5910-06 Product Data Sheet, 15 January 2024 | IFM official exact-product data sheet

+86 180 3023 5313 | sales13@apterpower.com | www.apterpower.com