

INDUSTRIAL AUTOMATION PRODUCT

II5910

II5910 Inductive Sensor

IFM II5910 is a flush-mountable M30 inductive sensor with a 15 mm sensing range and PNP normally-open switching output. It operates from 10 to 32 V DC and uses a gold-contact M12 connector.

CONTROLLED ENGINEERING COPY

IDENTITY	VERIFIED VALUE
Manufacturer	IFM
System family	IFM inductive sensors
Part number	II5910
Document status	Controlled product and system reference

DOCUMENT SCOPE

Exact article identity, official technical data, host matching, installation checks, applications, precautions and controlled acceptance evidence.

MODEL-SPECIFIC ENGINEERING 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.

System Role and Architecture

IFM II5910 is a flush-mountable M30 inductive sensor with a 15 mm sensing range and PNP normally-open switching output. It operates from 10 to 32 V DC and uses a gold-contact M12 connector.

FUNCTION 1
15 mm inductive sensing range

FUNCTION 2
PNP normally-open switching output

FUNCTION 3
10 to 32 V DC operation

FUNCTION 4
IP67 flush-mountable M30 housing

RELATED APTER POWER PAGES

1 ABB DSMB127 57360001-HG

2 ABB DSBC174 3BSE012211R1

3 ABB DSDX454 5716075-AT

4 ABB DO630 3BHT300007R1

5 ABB DSAI145 57120001-HA

6 ABB DSAI130 57120001-P

7 ABB DSAI110 57120001-DP

8 ABB DSTY101 57120001-KY

9 ABB TU835V1 3BSE013236R1

MATCHED SYSTEM COMPONENTS

NO.	DOCUMENTED COMPONENT / ROLE
01	IFM inductive sensors
02	Matched IFM inductive sensors host and interfaces
03	Documented power, signal, communication and grounding connections
04	Approved configuration, diagnostics and acceptance record

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Host identity	IFM inductive sensors
Interface role	non-contact metal target detection with a PNP normally-open output
Field / power context	documented IFM inductive sensors installed position
Commissioning evidence	Identity, wiring, configuration, diagnostics and controlled response recorded

INSTALLATION AND CONNECTION CHECKS

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.

Technical Specifications

Technical values below are limited to the named product record and directly applicable manufacturer documentation.

PARAMETER	VALUE	PARAMETER	VALUE
Product type	Inductive sensor	Reverse-polarity protection	Yes
Type designation	IIA3015BBPKG/US-104	Short-circuit protection	Yes, non-latching
Electrical design	PNP	Overload protection	Yes
Output function	Normally open	Ambient temperature	-40 to 70 degC
Sensing range	15 mm	Degree of protection	IP67
Real sensing range	15 mm +/- 10%	Mounting	Flush mountable
Operating distance	0 to 12.15 mm	Thread designation	M30 x 1.5
Operating voltage	10 to 32 V DC	Tightening torque	50 Nm
Current consumption	10 mA	Connection	M12 connector, A-coded, 3 gold-plated contacts
Maximum output voltage drop	2.5 V DC	Switching indication	4 yellow LEDs
Continuous output current	200 mA	EMC emission	EN 55011 class B
Switching frequency	100 Hz	MTTF	1083 years

RELATED PRODUCT PAGES

- 1 ABB DSMB127 57360001-HG
- 2 ABB DSBC174 3BSE012211R1
- 3 ABB DSDX454 5716075-AT

ENGINEERING BOUNDARY

Confirm II5910, its exact IFM inductive sensors role, installed position, power, interfaces, configuration, diagnostics and controlled acceptance evidence before release.

PRE-INSTALLATION CHECKS

- 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.

Applications and Engineering Context

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.

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.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	II5910 recorded
Host / carrier	IFM inductive sensors
Physical interface	Installed terminals, ports and signals matched to the as-found record
Configuration	Approved host and channel configuration restored
Functional proof	Controlled test confirms non-contact metal target detection with a PNP normally-open output

IMPORTANT NOTICE

Confirm II5910, its exact IFM inductive sensors role, installed position, power, interfaces, configuration, diagnostics and controlled acceptance evidence before release.

Related Products and Source Record

Brand-qualified Apter Power navigation links are provided for system planning only; manufacturer evidence remains the named source record.

RELATED PRODUCTS ON APTER POWER

1

ABB DSMB127 57360001-HG

View ABB DSMB127 57360001-HG page

2

ABB DSBC174 3BSE012211R1

View ABB DSBC174 3BSE012211R1 page

3

ABB DSDX454 5716075-AT

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ABB DSAI145 57120001-HA

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6

ABB DSAI130 57120001-P

View ABB DSAI130 57120001-P page

7

ABB DSAI110 57120001-DP

View ABB DSAI110 57120001-DP page

8

ABB DSTY101 57120001-KY

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9

ABB TU835V1 3BSE013236R1

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MANUFACTURER SOURCE RECORD

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

APTER POWER SALES TEAM

WHATSAPP / PHONE

+86 180 3023 5313

EMAIL

sales13@apterpower.com

WEBSITE

www.apterpower.com



RECOMMENDATION SCOPE

These links support product navigation and comparison. Technical values in this document are sourced only from the manufacturer record above.