

EU Declaration of Conformity

<i>Product:</i>	RightSight Photoelectric Sensors	
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<i>Name and address of the manufacturer:</i>	<i>Name and address of the authorised representative:</i>	
Rockwell Automation, Inc.	Rockwell Automation B.V.	
1201 South 2nd Street	Rivium Promenade 160	
Milwaukee, WI 53204	2909 LM Capelle aan den IJssel	
USA	The Netherlands	

This declaration of conformity is issued under the sole responsibility of the manufacturer.

<i>Object of the declaration:</i>	Allen-Bradley 42EF Series	
	<i>(reference the attached list of catalogue numbers)</i>	


The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

2014/35/EU	Low Voltage Directive	(LVD)
2014/30/EU	EMC Directive	(EMC)
2011/65/EU	RoHS Directive	(RoHS)

References to the relevant harmonised standards used or references to the other technical specifications in relation to which conformity is declared:

EN 60947-5-2:2007 + A1:2012	Low voltage switchgear and controlgear – Part 5-2: Control circuit devices and switching elements – Proximity switches	
EN 60825-1:2007	Safety of laser products – Part 1: Equipment classification and requirements	
EN 50581:2012	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances	

Signed for and on behalf of the above named manufacturer:

<i>Place and date of issue:</i>	Milwaukee, WI USA	26-Sep-2018
<i>Name, function:</i>	Daniel L. Nachtigall, Technical Leader – Product Compliance Engineering	
<i>Signature:</i>		

Catalogue number ¹	Series ²	Description	Directive ³		
			LVD	EMC	RoHS
RightSight Photoelectric Proximity Sensors					
42EF-B1xxxx-x	B	Background Suppression sensing mode per Nomenclature	N/R	Yes	Yes
42EF-B1RxBx-x	B	Background Suppression sensing mode per Nomenclature	Yes	Yes	Yes
42EF-B1SxBx-x	B	Background Suppression sensing mode per Nomenclature	Yes	Yes	Yes
42EF-B1LDBx-x	A	Background Suppression sensing mode per Nomenclature	N/R	Yes	Yes
42EF-C2xBA-x	C	ClearSight sensing mode per Nomenclature	N/R	Yes	Yes
42EF-C2xBA-x	C	ClearSight sensing mode per Nomenclature	N/R	Yes	Yes
42EF-D1xBCK-x	A	Standard Diffuse sensing mode per Nomenclature	N/R	Yes	Yes
42EF-D1RxAK-x	B	Standard Diffuse sensing mode per Nomenclature	Yes	Yes	Yes
42EF-D1SxAK-x	B	Standard Diffuse sensing mode per Nomenclature	Yes	Yes	Yes
42EF-D2xxAK-x	D	Standard Diffuse sensing mode per Nomenclature	N/R	Yes	Yes
42EF-D8xBx-x	A	Standard Diffuse sensing mode per Nomenclature	N/R	Yes	Yes
42EF-S1xxA-x	B	Sharp Cutoff Diffuse sensing mode per Nomenclature	N/R	Yes	Yes
42EF-S1RxA-x	B	Sharp Cutoff Diffuse sensing mode per Nomenclature	Yes	Yes	Yes
42EF-S1SxA-x	B	Sharp Cutoff Diffuse sensing mode per Nomenclature	Yes	Yes	Yes
42EF-F2xBC-x	A	Color Mark sensing mode per Nomenclature	N/R	Yes	Yes
42EF-G1xxA-x	B	Infrared Glass Fiber Optic sensing mode per Nomenclature	N/R	Yes	Yes
42EF-G1RxA-x	B	Infrared Glass Fiber Optic sensing mode per Nomenclature	Yes	Yes	Yes
42EF-G1SxA-x	B	Infrared Glass Fiber Optic sensing mode per Nomenclature	Yes	Yes	Yes
42EF-P2xxB-x	D	Polarized Retroreflective sensing mode per Nomenclature	N/R	Yes	Yes
42EF-P2RxB-x	B	Polarized Retroreflective sensing mode per Nomenclature	Yes	Yes	Yes
42EF-P2SxB-x	B	Polarized Retroreflective sensing mode per Nomenclature	Yes	Yes	Yes
42EF-P8xBC-x	A	Polarized Retroreflective sensing mode per Nomenclature	N/R	Yes	Yes
42EF-U2xxB-x	B	Retroreflective sensing mode per Nomenclature	N/R	Yes	Yes
42EF-U2RxB-x	B	Retroreflective sensing mode per Nomenclature	Yes	Yes	Yes
42EF-U2SxB-x	B	Retroreflective sensing mode per Nomenclature	Yes	Yes	Yes
42EF-E1EZB-F4	B	Transmitted Beam Emitter sensing mode per Nomenclature	Yes	Yes	Yes
42EF-E1QZB-x	C	Transmitted Beam Emitter sensing mode per Nomenclature	Yes	Yes	Yes
42EF-E2EZB-x	D	Transmitted Beam Emitter sensing mode per Nomenclature	N/R	Yes	Yes
42EF-E8EZB-x	A	Transmitted Beam Emitter sensing mode per Nomenclature	N/R	Yes	Yes
42EF-R2xxBx-x	D	Transmitted Beam Receiver sensing mode per Nomenclature	N/R	Yes	Yes
42EF-R9MNBT-x	D	Transmitted Beam Receiver sensing mode per Nomenclature	N/R	Yes	Yes
42EF-R9RxBx-x	D	Transmitted Beam Receiver sensing mode per Nomenclature	Yes	Yes	Yes
42EF-R9SxBx-x	D	Transmitted Beam Receiver sensing mode per Nomenclature	Yes	Yes	Yes

1) Not all combinations of nomenclature designations result in a valid catalog number.

2) If no series letter/number is given, then all series are covered.

3) Yes = Product is certified to this directive.

N/R = This directive is not required for this product.

NOMENCLATURE:

Background Suppression:

42EF	-	B	1	J	B	B	C	-	A2
1		2	3	4	5	6	7		8

1	Designates Product Family 42EF: RightSight photoelectric proximity switch
2	Designates Sensing Mode B: Background suppression
3	Designates Light Source 1: Infrared LED
4	Designates Operating Voltage/Mode J: DC, light operate K: DC, dark operate M: DC, 2 complementary light/dark outputs R: AC/DC, light operate S: AC/DC, dark operate
5	Designates Output Type B: Sink (NPN) and Source (PNP) C: Sink (NPN) power MOSFET F: Source (PNP) power MOSFET N: Sink (NPN) P: Source (PNP)
6	Designates Sensitivity Adjustment B: No sensitivity adjustment
7	Background Suppression Sensing Distance C – 50 mm E – 100 mm
8	Designates Connection Type A#: Integral cable, 300V, where # is a number signifying cable length (m) F*: DC Micro QD connector, where * is a number and/or letter signifying pin/connector options G*: AC Micro QD connector, where * is a number and/or letter signifying pin/connector options Y*: Pico QD connector, where * is a number and/or letter signifying pin/connector options Z*: Pico QD connector, where * is a number and/or letter signifying pin/connector options

ClearSight:

42EF	-	C	2	J	B	A	-	A2
1		2	3	4	5	6		7

1	Designates Product Family 42EF: Rightsight photoelectric proximity switch
2	Designates Sensing Mode C: ClearSight
3	Designates Light Source 2: Visible red LED
4	Designates Operating Voltage/Mode J: DC, light operate K: DC, dark operate
5	Designates Output Type B: Sink (NPN) and Source (PNP)
6	Designates Sensitivity Adjustment A: Adjustable sensitivity
7	Designates Connection Type A#: Integral cable, 300V, where # is a number signifying cable length (m) F*: DC Micro QD connector, where * is a number and/or letter signifying pin/connector options Z*: Pico QD connector, where * is a number and/or letter signifying pin/connector options

NOMENCLATURE:

Standard Diffuse:

42EF	-	D	2	J	B	A	K	-	Z31
1		2	3	4	5	6	7		8

1	Designates Product Family 42EF: Rightsight photoelectric proximity switch
2	Designates Sensing Mode D: Standard diffuse
3	Designates Light Source 1: Infrared LED 2: Visible red LED 8: Class 1 red laser (Compliant with EN 60825-1)
4	Designates Operating Voltage/Mode J: DC, light operate K: DC, dark operate M: DC, 2 complementary light/dark outputs R: AC/DC, light operate S: AC/DC, dark operate
5	Designates Output Type B: Sink (NPN) and Source (PNP) C: Sink (NPN) power MOSFET E: Sink (NPN) and Source (PNP), selectable F: Source (PNP) power MOSFET N: Sink (NPN) P: Source (PNP)
6	Designates Sensitivity Adjustment A: Adjustable sensitivity C: Teachable
7	Designates Response Time K: 1 ms (DC); 8.3 ms (AC/DC)
8	Designates Connection Type A#: Integral cable, 300V, where # is a number signifying cable length (m) A#H: Integral cable, 600V, where # is a number signifying cable length (m) F*: DC Micro QD connector, where * is a number and/or letter signifying pin/connector options G*: AC Micro QD connector, where * is a number and/or letter signifying pin/connector options Y*: Pico QD connector, where * is a number and/or letter signifying pin/connector options

Sharp Cutoff Diffuse:

42EF	-	S	1	R	C	A	-	A5H
1		2	3	4	5	6		7

1	Designates Product Family 42EF: Rightsight photoelectric proximity switch
2	Designates Sensing Mode S: Sharp cutoff diffuse
3	Designates Light Source 1: Infrared LED
4	Designates Operating Voltage/Mode J: DC, light operate K: DC, dark operate M: DC, 2 complementary light/dark outputs R: AC/DC, light operate S: AC/DC, dark operate
5	Designates Output Type B: Sink (NPN) and Source (PNP) C: Sink (NPN) power MOSFET F: Source (PNP) power MOSFET N: Sink (NPN) P: Source (PNP)
6	Designates Sensitivity Adjustment A: Adjustable sensitivity
7	Designates Connection Type A#: Integral cable, 300V, where # is a number signifying cable length (m) A#H: Integral cable, 600V, where # is a number signifying cable length (m) F*: DC Micro QD connector, where * is a number and/or letter signifying pin/connector options G*: AC Micro QD connector, where * is a number and/or letter signifying pin/connector options Y*: Pico QD connector, where * is a number and/or letter signifying pin/connector options

NOMENCLATURE:

Color Mark:

42EF	-	F	2	J	B	C	-	A2
1		2	3	4	5	6		7

1	Designates Product Family 42EF: Rightsight photoelectric proximity switch
2	Designates Sensing Mode F: Color Mark
3	Designates Light Source 2: Visible red LED
4	Designates Operating Voltage/Mode J: DC, light operate K: DC, dark operate
5	Designates Output Type B: Sink (NPN) and Source (PNP)
6	Designates Sensitivity Adjustment C: Teachable
7	Designates Connection Type A#: Integral cable, 300V, where # is a number signifying cable length (m) F*: DC Micro QD connector, where * is a number and/or letter signifying pin/connector options

Infrared Glass Fiber Optic:

42EF	-	G	1	M	P	A	-	Y4
1		2	3	4	5	6		8

1	Designates Product Family 42EF: Rightsight photoelectric proximity switch
2	Designates Sensing Mode G: Glass fiber optic
3	Designates Light Source 1: Infrared LED
4	Designates Operating Voltage/Mode J: DC, light operate K: DC, dark operate M: DC, 2 complementary light/dark outputs R: AC/DC, light operate S: AC/DC, dark operate
5	Designates Output Type B: Sink (NPN) and Source (PNP) C: Sink (NPN) power MOSFET F: Source (PNP) power MOSFET N: Sink (NPN) P: Source (PNP)
6	Designates Sensitivity Adjustment A: Adjustable sensitivity
7	Designates Connection Type A#: Integral cable, 300V, where # is a number signifying cable length (m) F*: DC Micro QD connector, where * is a number and/or letter signifying pin/connector options G*: AC Micro QD connector, where * is a number and/or letter signifying pin/connector options Y*: Pico QD connector, where * is a number and/or letter signifying pin/connector options

NOMENCLATURE:

Polarized Retroreflective:

42EF	-	P	2	M	E	B	-	F4
1		2	3	4	5	6		8

1	Designates Product Family 42EF: Rightsight photoelectric proximity switch
2	Designates Sensing Mode P: Polarized retroreflective
3	Designates Light Source 2: Visible red LED 8: Class 1 red laser (Compliant with EN 60825-1)
4	Designates Operating Voltage/Mode J: DC, light operate K: DC, dark operate M: DC, 2 complementary light/dark outputs R: AC/DC, light operate S: AC/DC, dark operate
5	Designates Output Type B: Sink (NPN) and Source (PNP) C: Sink (NPN) power MOSFET E: Sink (NPN) and Source (PNP), selectable F: Source (PNP) power MOSFET N: Sink (NPN) P: Source (PNP)
6	Designates Sensitivity Adjustment B: No sensitivity adjustment C: Teachable
8	Designates Connection Type A#: Integral cable, 300V, where # is a number signifying cable length (m) A#H: Integral cable, 600V, where # is a number signifying cable length (m) F*: DC Micro QD connector, where * is a number and/or letter signifying pin/connector options G*: AC Micro QD connector, where * is a number and/or letter signifying pin/connector options Y*: Pico QD connector, where * is a number and/or letter signifying pin/connector options

Retroreflective:

42EF	-	U	2	R	F	B	-	A2
1		2	3	4	5	6		8

1	Designates Product Family 42EF: Rightsight photoelectric proximity switch
2	Designates Sensing Mode U: Retroreflective
3	Designates Light Source 2: Visible red LED
4	Designates Operating Voltage/Mode J: DC, light operate K: DC, dark operate R: AC/DC, light operate S: AC/DC, dark operate
5	Designates Output Type B: Sink (NPN) and Source (PNP) C: Sink (NPN) power MOSFET F: Source (PNP) power MOSFET
6	Designates Sensitivity Adjustment B: No sensitivity adjustment
7	Designates Connection Type A#: Integral cable, 300V, where # is a number signifying cable length (m) F*: DC Micro QD connector, where * is a number and/or letter signifying pin/connector options G*: DC Micro QD connector, where * is a number and/or letter signifying pin/connector options

NOMENCLATURE:

Transmitted Beam Emitter

42EF	-	E	8	E	Z	B	-	A2
1		2	3	4	5	6		7

1	Designates Product Family 42EF: Rightsight photoelectric proximity switch
2	Designates Sensing Mode E: Transmitted beam emitter
3	Designates Light Source 1: Infrared LED 2: Visible red LED 8: Class 1 red laser (Compliant with EN 60825-1)
4	Designates Operating Voltage/Mode E: DC, transmitted beam source Q: AC/DC, transmitted beam source
5	Designates Output Type Z: None (light source)
6	Designates Sensitivity Adjustment B: No sensitivity adjustment
7	Designates Connection Type A#: Integral cable, 300V, where # is a number signifying cable length (m) F*: DC Micro QD connector, where * is a number and/or letter signifying pin/connector options G*: DC Micro QD connector, where * is a number and/or letter signifying pin/connector options Y*: Pico QD connector, where * is a number and/or letter signifying pin/connector options Z*: Pico QD connector, where * is a number and/or letter signifying pin/connector options

Transmitted Beam Receiver

42EF	-	R	2	M	P	B	T	-	A5
1		2	3	4	5	6	7		8

1	Designates Product Family 42EF: Rightsight photoelectric proximity switch
2	Designates Sensing Mode R: Transmitter beam receiver
3	Designates Light Source 2: Visible red LED 9: None (Infrared LED receiver)
4	Designates Operating Voltage/Mode J: DC, light operate K: DC, dark operate M: DC, 2 complementary light/dark outputs R: AC/DC, light operate S: AC/DC, dark operate
5	Designates Output Type B: Sink (NPN) and Source (PNP) C: Sink (NPN) power MOSFET E: Sink (NPN) and Source (PNP), selectable N: Sink (NPN) P: Source (PNP)
6	Designates Sensitivity Adjustment B: No sensitivity adjustment
7	Designates Sensing Distance Blank: 20m T: 8m
8	Designates Connection Type A#: Integral cable, 300V, where # is a number signifying cable length (m) H#: Integral cable, 600V, where # is a number signifying cable length (m) F*: DC Micro QD connector, where * is a number and/or letter signifying pin/connector options G*: DC Micro QD connector, where * is a number and/or letter signifying pin/connector options Y*: Pico QD connector, where * is a number and/or letter signifying pin/connector options Z*: Pico QD connector, where * is a number and/or letter signifying pin/connector options