



CRAN
Communications Regulatory Authority of Namibia

OUR REF: TAP/03/2024/ IFM

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ENQUIRIES: SHELEEN KAVIKAIRIUA

28TH March 2024

MR. SAM SHIVUTE

Commissioner
Namibia Revenue Agency
Moltke Street, Windhoek
Namibia

PER EMAIL:

Johanna.Amukushu@namra.org.na

Dear Custom Officials,

TYPE APPROVAL EXEMPTION – IFM ELECTRONIC PTY LTD

Kindly note that the Authority has reviewed the documentations describing equipment to be imported into Namibia by **ifm Electronic (Pty) Ltd** and hereby confirms that, the following models: **R1D201, R1D101, R2D110, R2D101R2D210 and R2D201** do not require type approval.

This letter therefore, serves only as an exemption for the equipment mentioned above and may not be used for other consignments without the consent of the Authority.

In light of trade facilitation, the Authority thus requests Customs to please allow the equipment to pass the border as they do not require Type Approval.

For any further information or clarity please do not hesitate to contact Mr. Sheleen Kavikairiua, Manager: Licensing Standards & Regulatory Compliance, at Tel: 061 222 666 or via email: skavikairiua@cran.na

Yours faithfully,


MRS. EMILIA NGHIKEMBUA
CHIEF EXECUTIVE OFFICER



Board Members:

Dr. Tulimevava Mufeti (Chairperson); Mr. Elvis Nashilongo (Vice-Chairperson); Ms. Jeanine Du Toit (Member);
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Chief Executive Officer: Mrs. Emilia Nghikembua

Executive: Governance, Risk & Compliance Management: Mr. Tanswell Davies

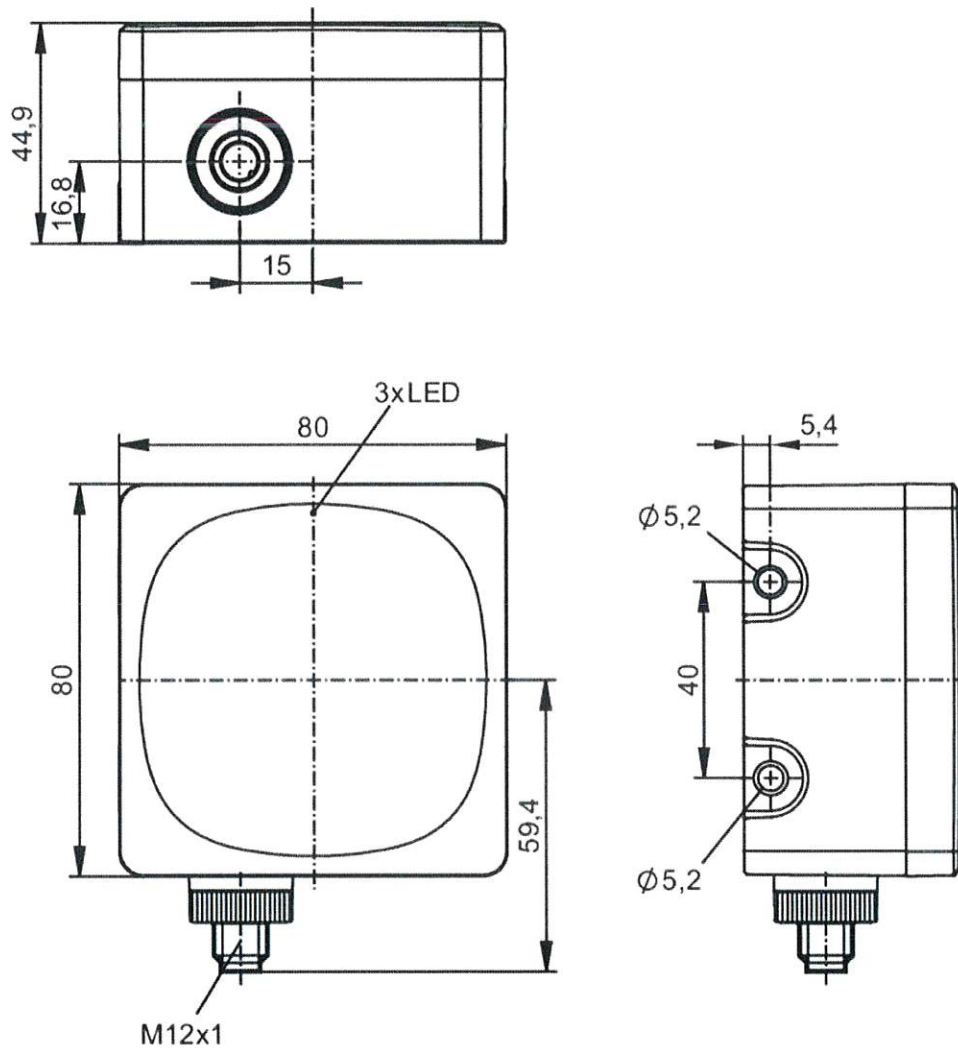




R1D201

Radar distance sensor

R1DBA00KG/US/CAN



Electrical data

Operating voltage	[V]	9...32 DC; (to SELV/PELV ; energy-limited circuits according to IEC/UL 61010-1 3rd ed. cl. 9.4)
Current consumption	[mA]	< 300; (mean value: 150 mA)
Power consumption	[W]	9; (maximum)
Protection class		III
Reverse polarity protection		yes
Max. power-on delay time	[ms]	1000
Operating frequency [GHz]		77...81
Maximum radiated average spectral density EIRP [dBm/MHz]		-17
Radiated peak power EIRP [dBm]		30

Detection zone

Range	[m]	0.1...50; (referred to E23014)
Angle of aperture cylindrical	[°]	horizontal 40 vertical 20

Measuring/setting range

Measuring range	[m]	0.1...50; (see diagram:)
Sampling rate	[Hz]	20

R1D201



Radar distance sensor

R1DBA00KG/US/CAN

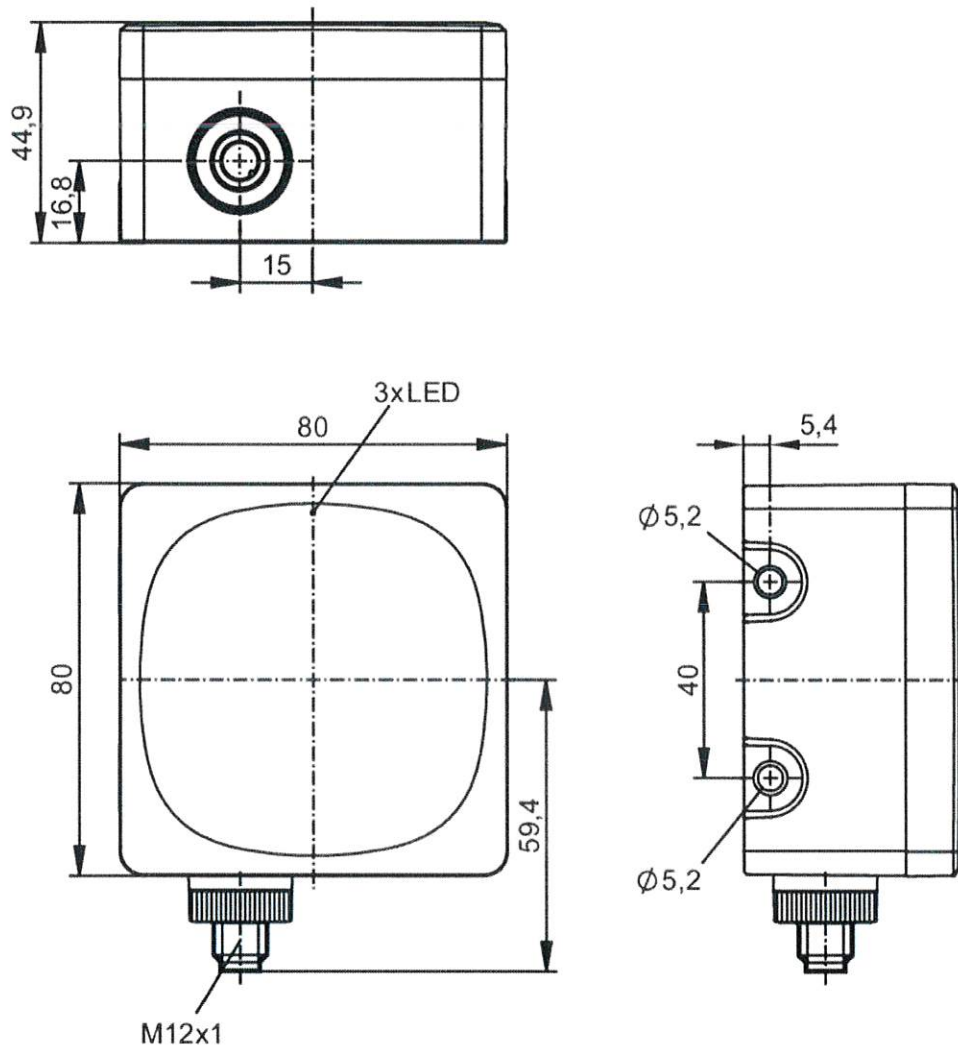
Software / programming		
Parameter setting options		via PC with ifm Vision Assistant
Interfaces		
Communication interface		CAN
Number of CAN interfaces		1
Transmission rate		250 (125...1000) kBaud
Protocol		SAE J1939
		Baud rate: 250
Factory settings		device address (ECU): 126
		UDS interface: 1000 kBaud
Usage type		parameter setting; data transmission
Note		Weitere Informationen entnehmen Sie dem Software Handbuch unter "Downloads"
Operating conditions		
Ambient temperature	[°C]	-40...85
Storage temperature	[°C]	-40...85
Protection		IP 65; IP 66; IP 67; IP 69K; (with mounted connectors or protective caps)
Tests / approvals		
EMC	DIN EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	DIN EN 61000-4-3 HF radiated	10 V/m
	DIN EN 61000-4-4 Burst	2 kV
	DIN EN 61000-4-6 HF conducted	10 V
	DIN EN 61000-6-2	immunity / industrial environments
Impact resistance	EN 55032 emission	Class A
	IEC 62262	IK06 (1J)
Vibration resistance	DIN EN 60068-2-6 Fc	10 g 10 frequency cycles, 1 octave/minute, in 3 axes
Shock resistance	DIN EN 60068-2-27 Ea	50 g 11 ms half-sine; 10 shocks each in every direction along the 3 coordinate axes
Continuous shock resistance	DIN EN 60068-2-29 Eb	40 g 6 ms half-sine; 4,000 shocks each in every direction along the 3 coordinate axes
Fast temperature change	DIN EN 60068-2-14 Na	TA = -40°C; TB = 85°C; t1 = 30 min; t2 = < 30 s; 300 cycles
Salt spray test	DIN EN 60068-2-11 Ka	8 test cycles
Electrical protection	DIN EN 61010-2-201	electric shock / electrical supply only via SELV/PELV circuits
MTTF	[years]	56
Mechanical data		
Weight	[g]	412,15
Housing		rectangular
Mounting		flush mountable
Dimensions	[mm]	80 x 80 x 45
Materials		housing: PA; radome: PEI; Sealing: HNBR
Displays / operating elements		
Display	operation	1x LED, green
	errors	1x LED, red
Remarks		
Pack quantity	1 pcs.	
Electrical connection		
1:	Screen	
2:	Operating voltage	
3:	GND	
4:	CAN-H	
5:	CAN-L	
Connector: 1 x M12; coding: A		



R1D101

Radar distance sensor

R1DAA00KG/US/CAN



Electrical data

Operating voltage	[V]	9...32 DC; (to SELV/PELV ; energy-limited circuits according to IEC/UL 61010-1 3rd ed. cl. 9.4)
Current consumption	[mA]	< 300; (mean value: 150 mA)
Power consumption	[W]	9; (maximum)
Protection class		III
Reverse polarity protection		yes
Max. power-on delay time	[ms]	1000
Operating frequency [GHz]		60...64
Average spectral density EIRP [dBm/MHz]		-10
Average transmitter power EIRP [dBm]		20

Detection zone

Range	[m]	0.1...50; (referred to E23014)
Angle of aperture cylindrical	[°]	horizontal 40 vertical 30

Measuring/setting range

Measuring range	[m]	0.1...50; (see diagram:)
Sampling rate	[Hz]	20

R1D101



Radar distance sensor

R1DAA00KG/US/CAN

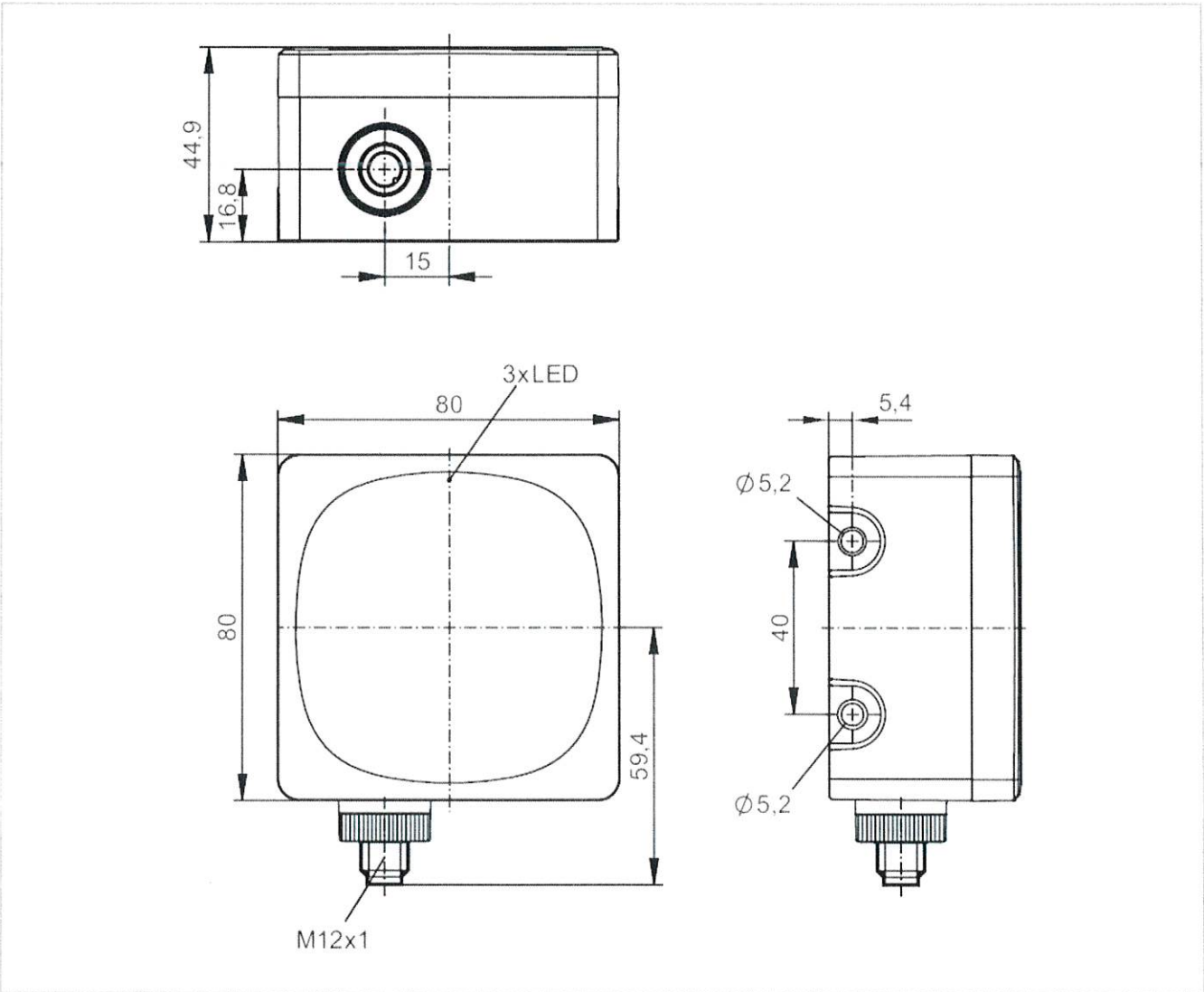
Software / programming		
Parameter setting options		via PC with ifm Vision Assistant
Interfaces		
Communication interface		CAN
Number of CAN interfaces		1
Transmission rate		250 (125...1000) kBaud
Protocol		SAE J1939
		Baud rate: 250
Factory settings		device address (ECU): 126
		UDS interface: 1000 kBaud
Usage type		parameter setting; data transmission
Note		Weitere Informationen entnehmen Sie dem Software Handbuch unter "Downloads"
Operating conditions		
Ambient temperature	[°C]	-40...85
Storage temperature	[°C]	-40...85
Protection		IP 65; IP 66; IP 67; IP 69K; (with mounted connectors or protective caps)
Tests / approvals		
EMC	DIN EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	DIN EN 61000-4-3 HF radiated	10 V/m
	DIN EN 61000-4-4 Burst	2 kV
	DIN EN 61000-4-6 HF conducted	10 V
	DIN EN 61000-6-2	immunity / industrial environments
	EN 55032 emission	Class A
Impact resistance	IEC 62262	IK06 (1J)
Vibration resistance	DIN EN 60068-2-6 Fc	10 g 10 frequency cycles, 1 octave/minute, in 3 axes
Shock resistance	DIN EN 60068-2-27 Ea	50 g 11 ms half-sine; 10 shocks each in every direction along the 3 coordinate axes
Continuous shock resistance	DIN EN 60068-2-29 Eb	40 g 6 ms half-sine; 4,000 shocks each in every direction along the 3 coordinate axes
Fast temperature change	DIN EN 60068-2-14 Na	TA = -40°C; TB = 85°C; t1 = 30 min; t2 = < 30 s; 300 cycles
Salt spray test	DIN EN 60068-2-11 Ka	8 test cycles
Electrical protection	DIN EN 61010-2-201	electric shock / electrical supply only via SELV/PELV circuits
MTTF	[years]	56
Mechanical data		
Weight	[g]	413,6
Housing		rectangular
Mounting		flush mountable
Dimensions	[mm]	80 x 80 x 45
Materials		housing: PA; radome: PEI; Sealing: HNBR
Displays / operating elements		
Display	operation	1x LED, green
	errors	1x LED, red
Remarks		
Pack quantity		1 pcs.
Electrical connection		
1:	Screen	
2:	Operating voltage	
3:	GND	
4:	CAN-H	
5:	CAN-L	
Connector: 1 x M12; coding: A		

R2D110



Radar distance sensor

R2DAAF6KG/US/IO-LINK



Application		
Radio approval for	EU/RED	
Note on radio approval	The list of countries applying the European Radio Equipment Directive 2014/53/EU (RED) can be found under "Downloads".	
Electrical data		
Operating voltage	[V]	10...30 DC; (to SELV/PELV ; energy-limited circuits according to IEC/UL 61010-1 3rd ed. cl. 9.4)
Current consumption	[mA]	< 300; (mean value: 150 mA)
Power consumption	[W]	21; (maximum)
Protection class		III
Reverse polarity protection		yes
Max. power-on delay time	[ms]	1000
Operating frequency [GHz]		60...64
Average spectral density		-15
EIRP [dBm/MHz]		

R2D110

Radar distance sensor

R2DAAF6KG/US/IO-LINK

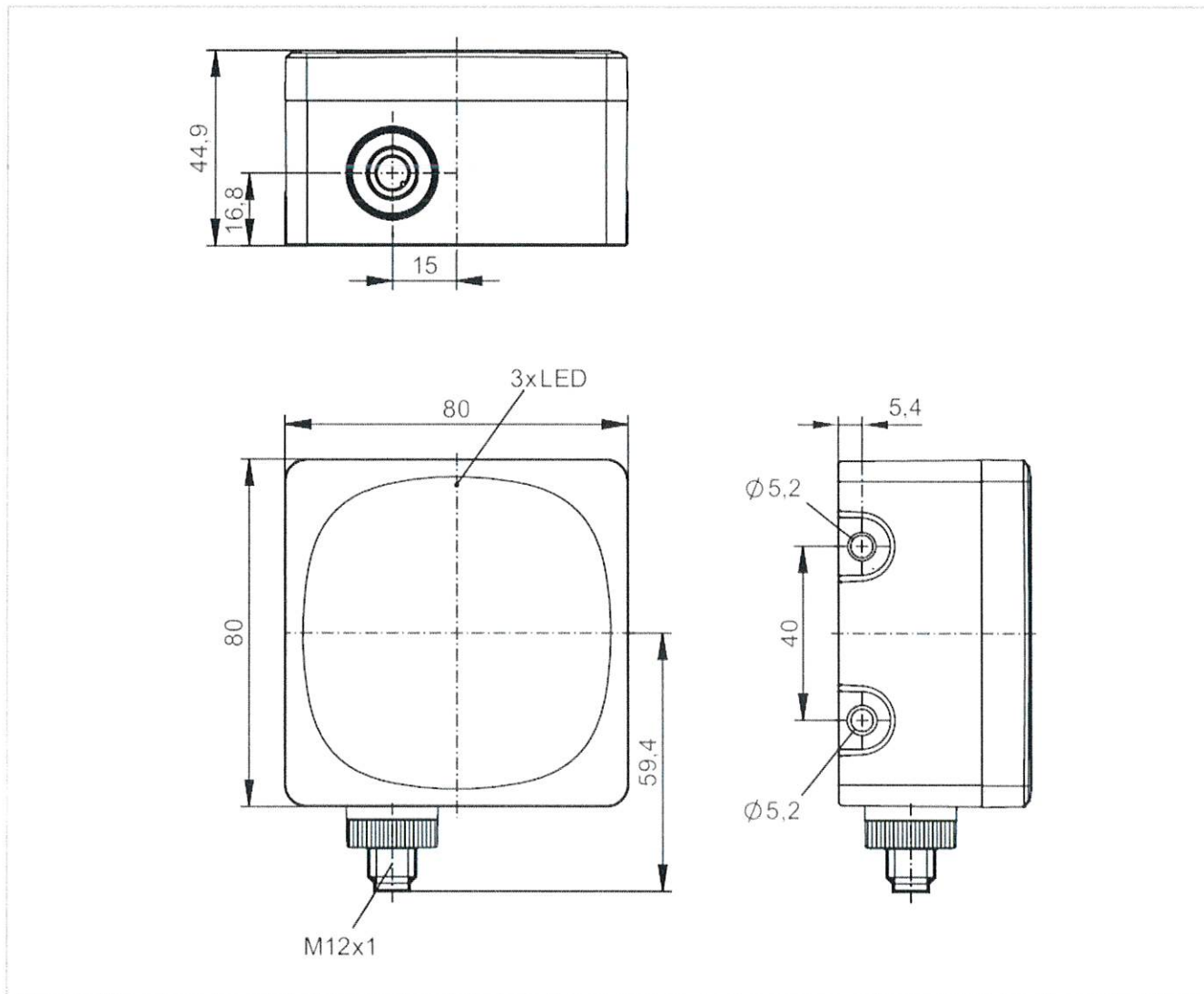


Average transmitter power EIRP [dBm]		15
Inputs / outputs		
Total number of inputs and outputs		3
Inputs		
Inputs	IN1	activation/deactivation of the radar
Outputs		
Total number of outputs		2
Output signal	OUT1	switching signal; IO-Link
	OUT2	switching signal
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Digital		
Electrical design		PNP/NPN; (parameterisable)
Output function		normally open / normally closed; (parameterisable)
Max. voltage drop switching output DC	[V]	2.5
Permanent current rating of switching output DC	[mA]	200
Detection zone		
Range	[m]	0.3...50; (referred to E23014)
Angle of aperture cylindrical	[°]	horizontal 140
		vertical 50
Note		static objects are not stably detected in the range < 1 m
Measuring/setting range		
Measuring range	[m]	0.3...50; (see diagram:)
Sampling rate	[Hz]	20
Note		static objects are not stably detected in the range < 1 m
Software / programming		
Parameter setting options		only via IO-Link
Interfaces		
Communication interface		IO-Link
Transmission type		COM3 (230,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
Profiles	Function class	Designation
	0x0030	BLOB transfer
	0x4000	Identification and Diagnosis
	0x8101	Locator
	0x8102	ProductURI
SIO mode		yes
Required master port type		A
Min. process cycle time	[ms]	3.2

R2D101

Radar distance sensor

R2DAA00KG/US/CAN



Application

Note on radio approval

The list of countries applying the European Radio Equipment Directive 2014/53/EU (RED) can be found under "Downloads".

Electrical data

Operating voltage	[V]	9...32 DC; (to SELV/PELV ; energy-limited circuits according to IEC/UL 61010-1 3rd ed. cl. 9.4)
Current consumption	[mA]	< 300; (mean value: 150 mA)
Power consumption	[W]	9; (maximum)
Protection class		III
Reverse polarity protection		yes
Max. power-on delay time	[ms]	1000
Operating frequency [GHz]		60...64
Average spectral density EIRP [dBm/MHz]		-15

R2D101



Radar distance sensor

R2DAA00KG/US/CAN

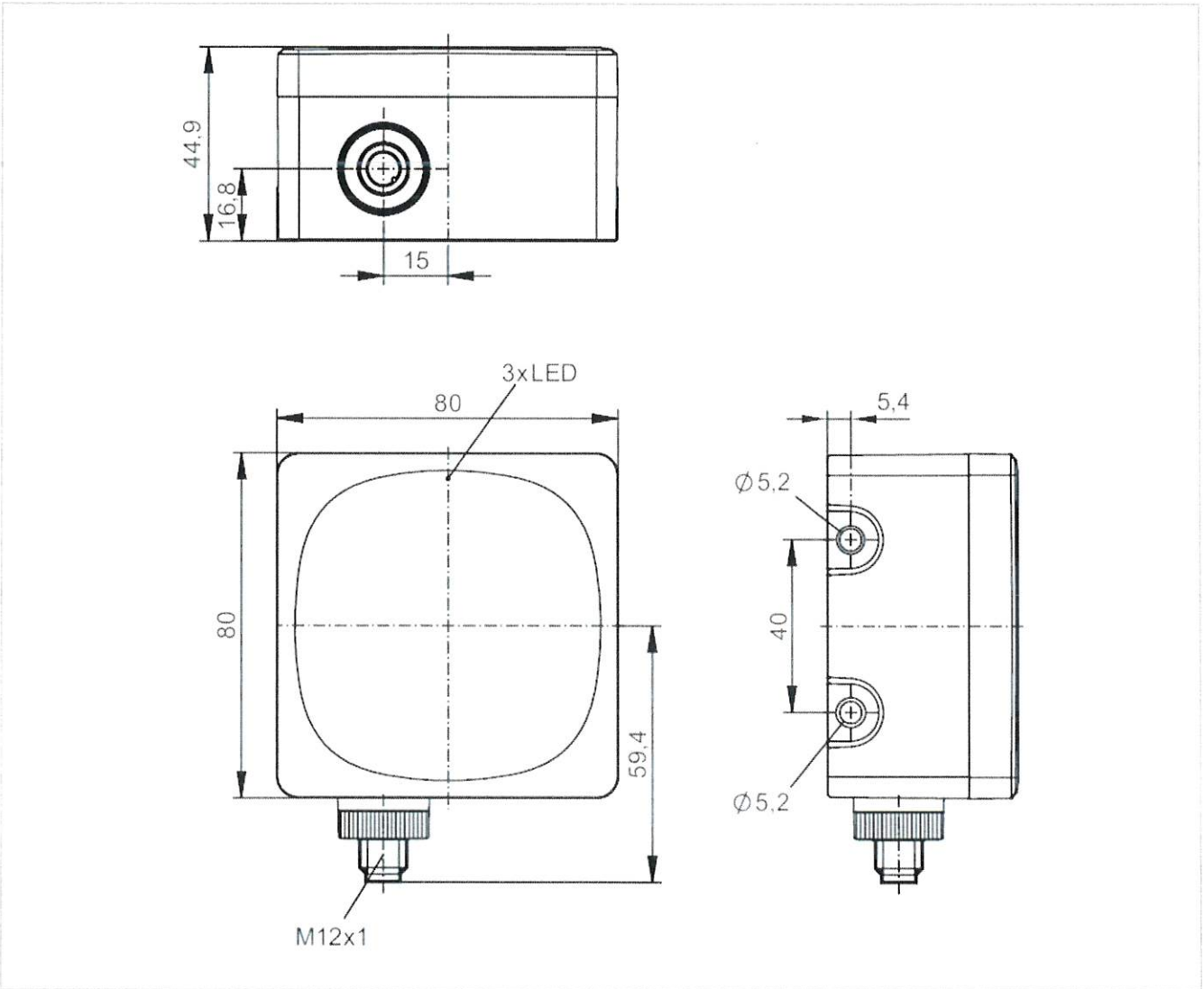
Average transmitter power EIRP [dBm]	15	
Detection zone		
Range	[m]	0.1...50; (referred to E23014)
Angle of aperture cylindrical	horizontal	140
	vertical	50
Note	Im Area – Mode werden statische Objekte im Bereich < 1 m nicht stabil detektiert	
Measuring/setting range		
Measuring range	[m]	0.1...50; (see diagram:)
Sampling rate	[Hz]	20
Software / programming		
Parameter setting options	via PC with ifm Vision Assistant	
Interfaces		
Communication interface	CAN	
Number of CAN interfaces	1	
Transmission rate	250 (125...1000) kBaud	
Protocol	SAE J1939	
Factory settings	Baud rate: 250	
	device address (ECU): 126	
	UDS interface: 1000 kBaud	
Usage type	parameter setting; data transmission	
Note	Weitere Informationen entnehmen Sie dem Software Handbuch unter "Downloads"	
Operating conditions		
Ambient temperature	[°C]	-40...85
Storage temperature	[°C]	-40...85
Protection	IP 65; IP 66; IP 67; IP 69K; (with mounted connectors or protective caps)	
Tests / approvals		
EMC	DIN EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	DIN EN 61000-4-3 HF radiated	10 V/m
	DIN EN 61000-4-4 Burst	2 kV
	DIN EN 61000-4-6 HF conducted	10 V
	DIN EN 61000-6-2	immunity / industrial environments
	EN 55032 emission	Class A
Impact resistance	IEC 62262	IK06 (1J)
Vibration resistance	DIN EN 60068-2-6 Fc	10 g 10 frequency cycles, 1 octave/minute, in 3 axes
Shock resistance	DIN EN 60068-2-27 Ea	50 g 11 ms half-sine; 10 shocks each in every direction along the 3 coordinate axes
Continuous shock resistance	DIN EN 60068-2-29 Eb	40 g 6 ms half-sine; 4,000 shocks each in every direction along the 3 coordinate axes
Fast temperature change	DIN EN 60068-2-14 Na	TA = -40°C; TB = 85°C; t1 = 30 min; t2 = < 30 s; 300 cycles
Salt spray test	DIN EN 60068-2-11 Ka	8 test cycles
Electrical protection	DIN EN 61010-2-201	electric shock / electrical supply only via SELV/PELV circuits
MTTF	[years]	56

R2D210



Radar distance sensor

R2DBAF6KG/US/IO-Link



Application		
Radio approval for	USA; Canada; EU/RED	
Note on radio approval	The list of countries applying the European Radio Equipment Directive 2014/53/EU (RED) can be found under "Downloads".	
Electrical data		
Operating voltage	[V]	10...30 DC; (to SELV/PELV ; energy-limited circuits according to IEC/UL 61010-1 3rd ed. cl. 9.4)
Current consumption	[mA]	< 300; (mean value: 150 mA)
Power consumption	[W]	21; (maximum)
Protection class		III
Reverse polarity protection		yes
Max. power-on delay time	[ms]	1000
Operating frequency [GHz]		77...81

R2D210

Radar distance sensor

R2DBAF6KG/US/IO-Link



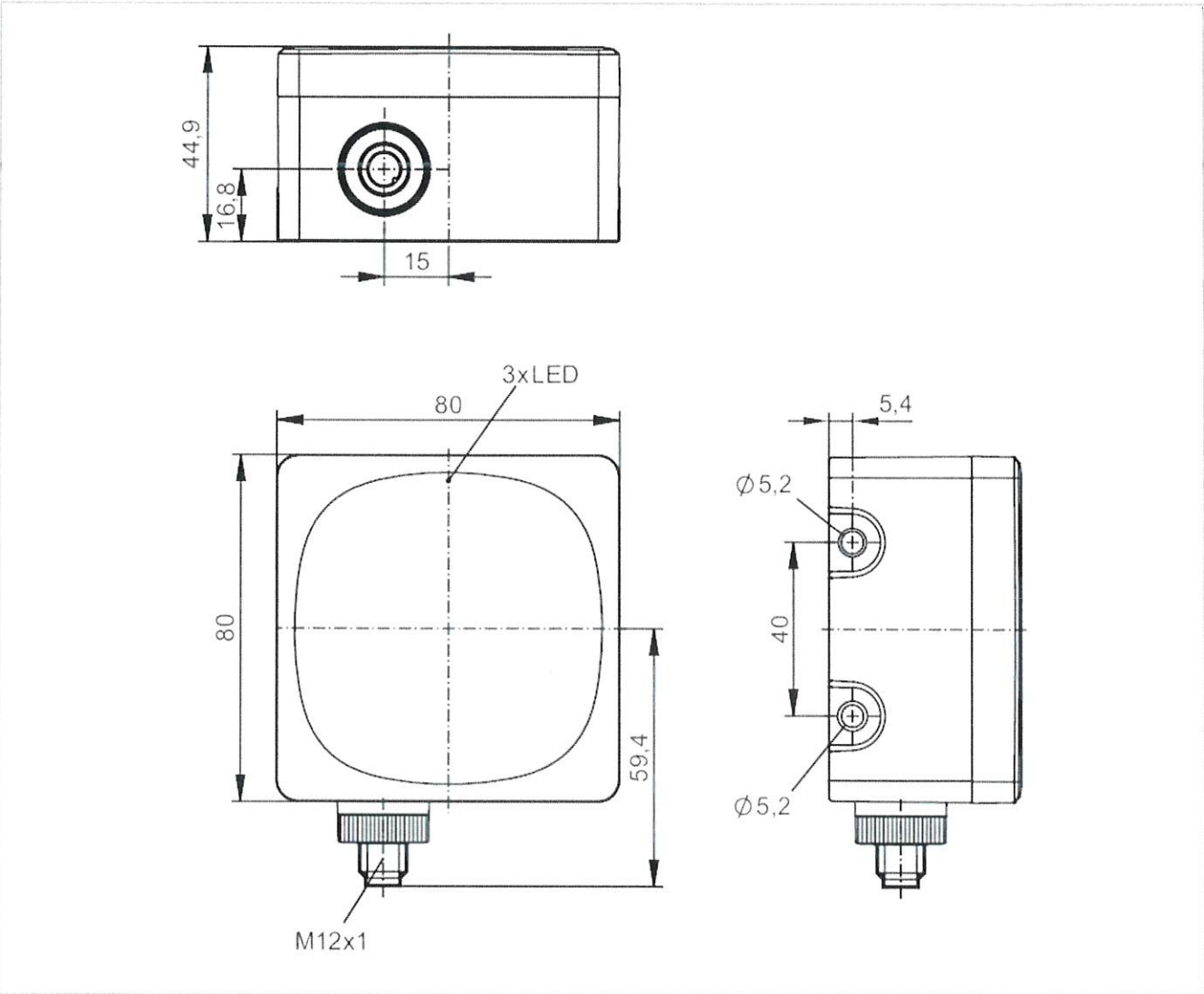
Maximum radiated average spectral density EIRP [dBm/MHz]		-9
Radiated peak power EIRP [dBm]		27
Inputs / outputs		
Total number of inputs and outputs		3
Inputs		
Inputs	IN1	activation/deactivation of the radar
Outputs		
Total number of outputs		2
Output signal	OUT1	switching signal; IO-Link
	OUT2	switching signal
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Digital		
Electrical design		PNP/NPN; (parameterisable)
Output function		normally open / normally closed; (parameterisable)
Max. voltage drop switching output DC [V]		2.5
Permanent current rating of switching output DC [mA]		200
Detection zone		
Range [m]		0.3...50; (referred to E23014)
Angle of aperture cylindrical [°]	horizontal	140
	vertical	30
Note		static objects are not stably detected in the range < 1 m
Measuring/setting range		
Measuring range [m]		0.3...50; (see diagram:)
Sampling rate [Hz]		20
Note		static objects are not stably detected in the range < 1 m
Software / programming		
Parameter setting options		only via IO-Link
Interfaces		
Communication interface		IO-Link
Transmission type		COM3 (230,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
Profiles	Function class	Designation
	0x0030	BLOB transfer
	0x4000	Identification and Diagnosis
	0x8101	Locator
	0x8102	ProductURI
SIO mode		yes

R2D201



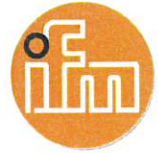
Radar distance sensor

R2DBA00KG/US/CAN



Application		
Radio approval for		USA; Canada
Note on radio approval		The list of countries applying the European Radio Equipment Directive 2014/53/EU (RED) can be found under "Downloads".
Electrical data		
Operating voltage	[V]	9...32 DC; (to SELV/PELV ; energy-limited circuits according to IEC/UL 61010-1 3rd ed. cl. 9.4)
Current consumption	[mA]	< 300; (mean value: 150 mA)
Power consumption	[W]	9; (maximum)
Protection class		III
Reverse polarity protection		yes
Max. power-on delay time	[ms]	1000
Operating frequency [GHz]		77...81

R2D201



Radar distance sensor

R2DBA00KG/US/CAN

Maximum radiated average spectral density EIRP [dBm/MHz]	-9
Radiated peak power EIRP [dBm]	27

Detection zone		
Range	[m]	0.1...50; (referred to E23014)
Angle of aperture cylindrical	[°]	horizontal 140
		vertical 30
Note	Im Area – Mode werden statische Objekte im Bereich < 1 m nicht stabil detektiert	

Measuring/setting range		
Measuring range	[m]	0.1...50; (see diagram:)
Sampling rate	[Hz]	20

Software / programming	
Parameter setting options	via PC with ifm Vision Assistant

Interfaces	
Communication interface	CAN
Number of CAN interfaces	1
Transmission rate	250 (125...1000) kBaud
Protocol	SAE J1939
Factory settings	Baud rate: 250
	device address (ECU): 126
	UDS interface: 1000 kBaud
Usage type	parameter setting; data transmission
Note	Weitere Informationen entnehmen Sie dem Software Handbuch unter "Downloads"

Operating conditions		
Ambient temperature	[°C]	-40...85
Storage temperature	[°C]	-40...85
Protection	IP 65; IP 66; IP 67; IP 69K; (with mounted connectors or protective caps)	

Tests / approvals		
EMC	DIN EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	DIN EN 61000-4-3 HF radiated	10 V/m
	DIN EN 61000-4-4 Burst	2 kV
	DIN EN 61000-4-6 HF conducted	10 V
	DIN EN 61000-6-2	immunity / industrial environments
	EN 55032 emission	Class A
Impact resistance	IEC 62262	IK06 (1J)
Vibration resistance	DIN EN 60068-2-6 Fc	10 g 10 frequency cycles, 1 octave/minute, in 3 axes
Shock resistance	DIN EN 60068-2-27 Ea	50 g 11 ms half-sine; 10 shocks each in every direction along the 3 coordinate axes
Continuous shock resistance	DIN EN 60068-2-29 Eb	40 g 6 ms half-sine; 4,000 shocks each in every direction along the 3 coordinate axes
Fast temperature change	DIN EN 60068-2-14 Na	TA = -40°C; TB = 85°C; t1 = 30 min; t2 = < 30 s; 300 cycles
Salt spray test	DIN EN 60068-2-11 Ka	8 test cycles
Electrical protection	DIN EN 61010-2-201	electric shock / electrical supply only via SELV/PELV circuits