

ISO 9001:2015



TDD-BAF-BBA-TF LED TOF Distance Sensor



Techn	nical Data			TDD-BAF-BBA-TF	
	Ex protection designation			II 2G Ex db IIC T6 Gb	-
Dust Ex protection designation			II 2D Ex tb IIIC T100°C Db		
For us	se in Ex Zones			(0), 1, 2, (20), 21 and 22	
Light S	Source			860nm (LED)	
Measu	suring range			10cm to 1m	
	lute measuring accuracy			±10%	
	onse time			100ms	
	ut type		RS485 + 4 - 20mA PNP, max. 100mA, short circuit protected		
	e designation according to E	N 60947-5-1/2		D3ASS1	
	ly voltage, Ue			+24 VDC ±10%	
	lute maximum supply voltage	, Um		+30 VDC	_
-	ent consumption		_	< 50mA	
	er consumption			1.2 W	_
	Power up delay time Housing		3s M20, brogg Mg E9, pickel ploted		_
	•			M30, brass Ms 58, nickel plated	_
	osure rating				_
Ambient working temperature range, T _{amb}		+10°C up to +50°C		_	
Storage temperature range		-10°C up to +80°C		_	
Connection cable		I PU in	sulation, AWM 20236, 5+PE x 0.5mm ² , halogen free, shielded, leads numbering marked, oil resistant cable for trailing, length: 15m	_	
Wiring	g and Dimensions			115 3	
Lea	ad-No	Function		30 78	
1		+24V			
2		0V			
3		4 - 20mA PNP, max. 100mA,			
		short circuit protected			
4		RS485: A (D+)		<u> </u>	
5		RS485: B (D-)			
		Safe equi	potential bo	onding for Ex devices The end of the cable must	
	Ensur			be connected outside the haz-	
Ensure local equipotential bonding by means of a corrosion-resistant PE con-			+++ +	ardous locations.	
				The cable shield is to con-	
	nectio	n		$\frac{A}{2}$ increases the period of the perio	
FX	related markings				-
	related markings				
(€1	1258			Manufacturer with Address	
	1258): TDD-BAF-BBA-TF			Manufacturer with Address Electrical data according to table	
Тур:	: TDD-BAF-BBA-TF			Electrical data according to table	
Тур:	o: TDD-BAF-BBA-TF s: ⊛ Ⅱ 2G Ex db IIC T6 Gb				
Typ: Gas	b: TDD-BAF-BBA-TF s: ☺ II 2G Ex db IIC T6 Gb EX:			Electrical data according to table Dust: 😔 II 2D Ex tb IIIC T100°C Db	
Typ: Gas ATE	b: TDD-BAF-BBA-TF s: ☺ II 2G Ex db IIC T6 Gb EX: ▷Ex:			Electrical data according to table Dust: 😔 II 2D Ex tb IIIC T100°C Db BVS 10 ATEX E130 X	£
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Typ: Gas ATE IECI Tam Man	b: TDD-BAF-BBA-TF s:	Operating Ma		Electrical data according to table Dust: II 2D Ex tb IIIC T100°C Db BVS 10 ATEX E130 X IECEx BVS 14.0108X +10°C up to +50°C Number 5 to 8 of the Serial Number (Year / CW) Ieclaration of conformity Maintenance	9H 91 Overath 132 -19
Typ: Gas ATE IECI Tam Man • LEI	b: TDD-BAF-BBA-TF s: II 2G Ex db IIC T6 Gb EX: Ex: nb: nufacturing date: duct description ED (890nm) TOF Distance Sensor			Electrical data according to table Dust: II 2D Ex tb IIIC T100°C Db BVS 10 ATEX E130 X IECEX BVS 14.0108X +10°C up to +50°C Number 5 to 8 of the Serial Number (Year / CW) Ieclaration of conformity Maintenance No special maintenance is required.	mbH 51491 Overath Fax -19
Typ: Gas ATE IECI Tam Man • LEI • Ana • Dis	b: TDD-BAF-BBA-TF s: II 2G Ex db IIC T6 Gb EX: DEx: nb: nufacturing date: duct description ED (890nm) TOF Distance Sensor nalog current output (PNP), 4mA to stance reasing over RS-485			Electrical data according to table Dust: II 2D Ex tb IIIC T100°C Db BVS 10 ATEX E130 X IECEX BVS 14.0108X +10°C up to +50°C Number 5 to 8 of the Serial Number (Year / CW) Ieclaration of conformity Maintenance No special maintenance is required. Protect the product and any optical ports (if applicable) from pollution. Clean with non- aggressive solvents only. Strong solvents may damage certain fibre optics. The equipment	L c GmbH D-51491 Overath 5-0, Fax -19
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Typ: Gas ATE IECI Tam Man • LEI • Ana • Dis • Me:	b: TDD-BAF-BBA-TF b: b: DI 2G Ex db IIC T6 Gb EX: b: c: b: c: b: c:	20mA cactly as shown in the connection diagram cable shield should be connected to pro- cimum ratings. Connection cables must no on the valid international and national rule- tings must not be exceeded. The electrica diagram. The local equipotential bonding inentely. The protective earth (PE) is solid octed to protection earth. The cable have to cable with termination fittings, or in cable	anual / EU-co n. The cable tection earth, ot be installed I connections must be con- lly connected o be installed o be installed	Electrical data according to table Dust: II 2D Ex tb IIIC T100°C Db BVS 10 ATEX E130 X IECEX BVS 14.0108X +10°C up to +50°C Number 5 to 8 of the Serial Number (Year / CW) Ieclaration of conformity Maintenance No special maintenance is required. Protect the product and any optical ports (if applicable) from pollution. Clean with non- aggressive solvents only. Strong solvents may damage certain fibre optics. The equipment must only be repaired or serviced by the manufacturer. General notes and disposal We reserve the right to modify our products. Our products are designed in such a way, that it has the least possible adverse effect on the environment. It neither emits or contains any dama- aging or siliconized substances and use a minimum of energy and resources. No longer usable or irreparable units must be disposed of in accordance with local waste disposal regulations. EU-Declaration of Conformity The product meets the requirements of the following standards and directives: IEC 60079-0:2017, EN IEC 60079-0:2018, IEC/EN 60079-1:2014, IEC/EN 60079-28:2015, IEC 60079-31:2013, EN 60529:2014, EN 60950-1:2006, EN 61000-4-2 to EN 61000-4-6, EN 61000-61-1/-2, EN 61000-64, ATEX directive 2014/34/EU, Machine directive 2006/42/EC, EMC directive 2014/30/EU, RoHS directive 2011/65/EU ATEX/IECEx-Designation: Gas: II 2G Ex db IIC T6 Gb	Tippkemper-Matrix GmbH Meegerner Str. 43, D-51491 Overath Tel.: +49 2206 9566-0, Fax -19
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Typ: Gas ATE IECI Tam Man • LEI • Ana • Dis • Me:	b: TDD-BAF-BBA-TF b: b: DI 2G Ex db IIC T6 Gb EX: b: c: b: c: b: c: b: c:	20mA actly as shown in the connection diagram cable shield should be connected to proi kimum ratings. Connection cables must no on the valid international and national rule diagram. The local equipotential bonding nentely. The protective earth (PE) is solid exted to protection earth. The cable have to cable with termination fittings. To se certificated Ex housings. All cable termi s.	anual / EU-co n. The cable tection earth, t be installed s and regula- l connections must be con- lly connected o be installed o be installed o be installed s connect ca- inals must be	Electrical data according to table Dust: II 2D Ex tb IIIC T100°C Db BVS 10 ATEX E130 X IECEx BVS 14.0108X +10°C up to +50°C Number 5 to 8 of the Serial Number (Year / CW) Ieclaration of conformity Maintenance No special maintenance is required. Protect the product and any optical ports (if applicable) from pollution. Clean with non- aggressive solvents only. Strong solvents may damage certain fibre optics. The equipment must only be repaired or serviced by the manufacturer. General notes and disposal We reserve the right to modify our products. Our products are designed in such a way, that it has the least possible adverse effect on the environment. It neither emits or contains any dam- aging or siliconized substances and use a minimum of energy and resources. No longer usable or irreparable units must be disposed of in accordance with local waste disposal regulations. EU-Declaration of Conformity The product meets the requirements of the following standards and directives: IEC 60079-0:2017, EN IEC 60079-0:2018, IEC/EN 60079-1:2014, IEC/EN 60079-28:2015, IEC 60079-0:2017, EN IEC 60079-0:2014, IEC/EN 60079-1:2014, IEC/EN 60079-28:2015, IEC 60079-0:2017, EN IEC 60079-0:2014, IEC/EN 60079-1:2014, IEC/EN 60079-28:2015, IEC 60079-0:2014, IEC/EN 60079-1:2014, IEC/EN 60079-28:2015, IEC 60079-0:2017, EN IEC 60079-0:2018, IEC/EN 60079-1:2014, IEC/EN 60079-28:2015, IEC 60079-0:2017, EN IEC 60079-0:2018, IEC/EN 60079-1:2014, IEC/EN 60079-28:2015, IEC 60079-0:2017, EN IEC 60079-0:2018, IEC/EN 60079-1:2014, IEC/EN 60079-28:2015, IEC 60079-0:2017, EN IEC 60079-0:2018, IEC/EN 60079-1:2014, IEC/EN 60079-28:2015, IEC 60079-0:2018, IEC/EN 60079-1:2014, IEC/EN 60079-28:2	Tippkemper-Matrix GmbH Meegerner Str. 43, D-51491 Overath Tel.: +49 2206 9566-0, Fax -19
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