

# TDD-BAD-BBB-TF LED TOF DISTANCE SENSOR PROXIMITY SWITCH

Zones 1, 2, 21, 22

Full catalogue available on our website: [www.inpratex.com](http://www.inpratex.com)

## ATEX INSTRUMENTATION

## ZONES 1, 2 (gas) & 21, 22 (dust)



The TDD-BAD-BBB-TF is an explosion-protected LED TOF distance sensor designed for reliable object detection and distance measurement in hazardous areas.

With a measuring range from 100mm to 1000mm, RS-485 communication and a short-circuit protected push-pull digital output, it provides a robust solution for industrial applications requiring precise proximity detection.

Its M30 nickel-plated brass housing, IP67 protection rating and ATEX/IECEX certifications make it suitable for use in gas and dust explosive atmospheres, specifically in Ex zones 1, 2, 21 and 22.



EU-Type Examination Certificate

### ITEM REFERENCES

Designation:	Measuring range:	Dimensions:	Item No.:
TDD-BAD-BBB-TF	10cm to 1m		

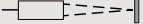
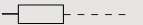
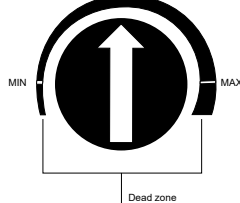
### TECHNICAL SPECIFICATIONS

Marking:	II 2G Ex db IIC T6 Gb II 2D Ex tb IIIC T100°C Db
Certificate:	EU-Type Examination Certificate
Operating temperature:	-10°C to +50°C
Storage temperature range:	-20°C to +80°C
Housing:	M30, brass Ms 58, nickel plated
Ingress protection:	IP67
Light Source:	860nm (LED)
Absolute measuring accuracy:	±10%
Response time:	100ms
Output type:	RS485 + push-pull, max. 100mA, short circuit protected + LED
Device designation:	D3ASS1, according to EN 60947-5-1/2
Supply voltage, $U_e$ :	24 VDC ± 10%
Absolute maximum supply voltage, $U_m$ :	30 VDC
Current consumption:	< 50mA
Power consumption:	1.2 W
Power up delay time:	3s
Connection cable:	TPU insulation, AWM 20236, 5+PE x 0.5mm <sup>2</sup> , halogen free, shielded, leads numbering marked, oil resistant cable for trailing, length: 10m
Accessories:	1x Spare safety screw with packing ring for potentiometer sealing included
Safe equipotential bonding for Ex devices:	Ensure local equipotential bonding by means of a corrosion-resistant PE connection. The end of the cable must be connected outside the hazardous locations.

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<b>Potentiometer adjustment:</b>													

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INSTRUMENTATION