

**Magnetostrictive linear position sensor
for use in explosion hazard areas**

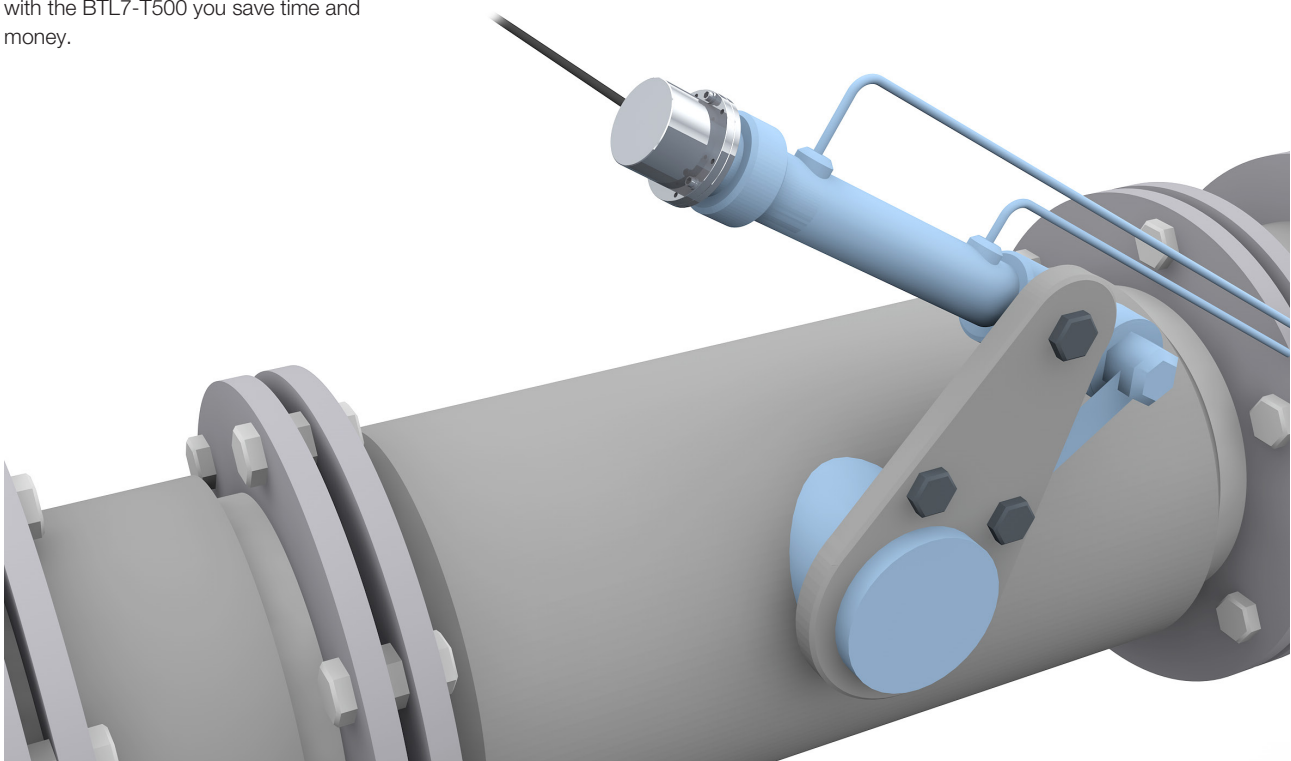
POSITION MEASUREMENT WITH INTEGRATED PROFIBUS INTERFACE

Control and shut-off valves are used for oil and gas transmission in refineries and petrochemical plants. The valve position is regulated using position measuring systems because they are extremely reliable, especially in very harsh environments.

If explosion protection is your highest priority, our certified BTL7-T500 linear position sensor will convince you. With its many international approvals, such as ATEX and IECex, it offers a wide range of applications, high reliability and safe operation. The wear-free position sensor is also ideal for continuous level measurement – for example, in refinery tanks. Of particular interest is the Profibus interface. It allows very simple installation and offers fast diagnostics of any errors. The time required for commissioning of systems and maintenance when service is required is drastically reduced, so that with the BTL7-T500 you save time and money.

Features

- Can be used in explosion hazard areas Zone 0 and Zone 1
- Precise positioning with 1 μm resolution
- Simultaneous position and speed measurement in one system
- Time-saving startup, flexible adaptation and fast diagnostics using the Profibus interface
- Non-contact and wear-free, insensitive to contamination



POSITION SENSORS
FOR USE IN EXPLOSION
HAZARD AREAS



	BTL7-T500 series
Interface	Profibus
Stroke length max.	7620 mm
Non-linearity	Stroke length \leq 500 mm = $\pm 30 \mu\text{m}$ Stroke length $>$ 500 ... \leq 5500 mm = $\pm 0,01 \%$ FS Stroke length $>$ 5500 mm = $\pm 0,02 \%$ FS
Sampling rate dependent on nominal length, max.	2 kHz
Max. number of position encoders	16
Supply voltage	10...30 V DC
Ambient temperature	-40...+60 °C
Shock	100 g
Vibration	12 g
Enclosure rating per IEC 60529	IP68
Housing material	Stainless steel

Ordering example: **BTL7-T500-M0500-B-DEXA-K05**

Nominal length [4-digit]

M0500 Metric specification in mm,
nominal length 500 mm (M0025...M7620)

Rod version, fastening

B Metric thread M18 \times 1,5
Z Inch thread 3/4"-16UNF
J 6 screws, ISO 4762 – M6 \times 22 – A2-70

Electrical connection

K05 5 m cable (radial)
KA05 5 m cable (axial)
only for rod version, fastening B and Z

Plug

A Float plug
B Short plug

ACCESSORIES



	BAM013L	BAM0147	BAM014A
Description	Magnet, \varnothing 32 \times 8 mm	Magnet, float, Ex, \varnothing 44 \times 49 mm	Magnet, float, Ex, \varnothing 50.9 \times 52 mm