Magnetostrictive Sensors SETs
# BTL7 X-LDPS

**BALLUFF**



## BTL7-abcd-Mnnnn-f-ggggg-lmmm/nnnn

**BTL7**
Magnetostrictive linear position sensor Generation 7

**a   Interface**
V = EtherNet

**b   Operating voltage**
5 = 10 … 30 V

**c   Interface characteristic 1**
0 = Flexible Magnet Mode

**d   Interface characteristic 2**
T = Profinet

**Mnnnn   Nominal length (4-position)**
M2000 = metric in mm
(2000 … 4500 mm, in 500 mm increments)

**f   Form factor**
P = Profile

**ggggg Special version**
SA479 = Long distance BTL

**l   Connection type**
C = Connector

**m   Connection type characteristic**
003 = 1 x M8x1 with 4 pins + 2 x M12x1 with 4 pins

**nnnn Application length**
MxxA = xx specification in meters (5 meter sampling rate /
5, 10, …1500 m)

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## Basic features

### Description

The Long distance positioning system is a configurable set consisting of the following components:
- BTL magnetostrictive position measuring system
- Clamps (for fixing the magnetostrictive sensor on the moving part of the track)
- Position encoders (number of required position encoders is calculated depending on the customer-specific application distance)
- Simatic software package (function block for integration into a PLC, visualization software S.C.A.D.A)
- Assembly instructions
Shielding plate

## System architecture

## System requirements

**Controller:** Simatic PLC S7 1200 / S7 1500
For applications with up to 100 position sensors and one to two axes, an S7 1200 is usually sufficient.
For applications with more than 100 position sensors and more than two axes, an S7 1500 can be useful and depends on the required movement speed of the axes.

**Project planning software:** TIA V14, 15 or 16

**SCADA visualization:** Windows PC with .Net framework installed
An Ethernet interface is required for communication with the PLC.