AMBERG
TECHNOLOGIES

Amberg Applications
Datasheet

The powerful on-board application for Leica Captivate and Viva total stations

To minimize costs in tunnel construction, it is necessary to build as close as possible to the design. To avoid interruptions of the heading, daily work steps should be made as efficient as possible.

Amberg Applications makes surveying tasks in tunnel construction faster and simpler. At the same time, the user has the flexibility to react to the changing requirements.
Amberg Applications is the powerful on-board application for Leica Viva and Captivate total stations. A seamless workflow is guaranteed by using the Amberg Profile module. This ensures trouble-free data transfer of project data and measurements from the tunnel to the office.

Modules:
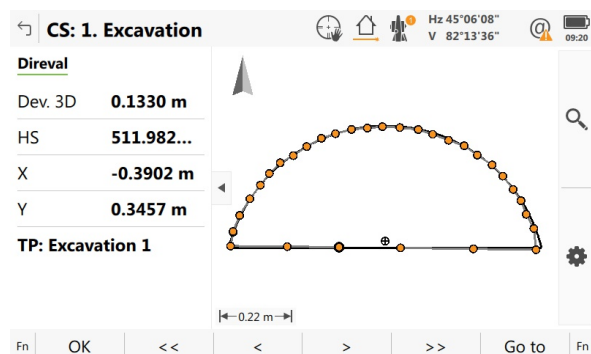**Amberg SetOut**
• Guidance of the tunnel heading
• Stakeout points relative to the tunnel axis
Amberg ProScan Plus
• 3D profile measurement
• Measurements for as-built documentation
Both modules also include functionality for automatic total station positioning - Amberg SetUp.

Amberg Applications – your tunnel under control

Amberg Applications
Software overview

The powerful on-board software for automatic tunnel stake out and profile measurement

Amberg Applications
Incorporated into standard Leica environment
Import of complete project data from Amberg Tunnel (multiple construction stages)
Availability of different projects on the same instrument. Project data management on total station
Import control points from Amberg Tunnel database (latest valid coordinates)
Data transfer via SD card or USB memory.
Amberg SetUp - Trouble free automatic setup of a total station included in Amberg SetOut and ProScan Plus
Amberg SetUp - Automatic setup of a total station without entering the point ID number
Amberg SetUp - Choose between manual or automatic mode to measure the control points
Amberg SetUp - Definition of max. coordinate and orientation sigma of setup
Results in relation to the tunnel axis and design are displayed in the real time on TS screen
Data are stored in the Leica *.dbx database
Easy workflow and fast reporting in Amberg Profile module

Automatic stake out in relation to the tunnel axis

Amberg SetOut
Automatic setting out of single points (axis, stationing, height markers, joints, walkways, etc.)
Setting out of points in ATR lock-mode with a prism (optional with a pole height)
Single or interval point setting out relative to project axis
Manual or timer-controlled setting out of interval points
Display of offset coordinates relative to project axis for a measurement

The powerful software for automatic 3D-profile measurements

Amberg ProScan Plus
Automatic profile measurement of vertical, horizontal and sloped 3D parallel profiles
Manual profile measurement "String" with reflectorless measurement
Manual profile measurement with prism on pole or prism with tunnel disc by ATR lock-mode
Automatic tolerance control of measured points in parallel profiles
User defined angle or distance spacing
Tunnel tubes and vertical shafts (horizontal profile) are supported
Automatic profile measurement on predefined stationing
Numerical on-board processing during measurement with deviations to axis and theoretical profile
Graphical and numerical on-board processing after measurements
Visualisation of profile sectors (overprofile / underprofile) with red laser
Automatic visualisation of graphically selected profile points with red laser on tunnel surface
2D profile visualisation of the as-built data

Compatible instruments

Leica Total stations	Compatible models
Leica Captivate	TS13, TS16 (A (limited support), P, I), TS60, MS60
Leica Viva	TS15(A (limited support), P, I), MS50, TS50 I, TM50 (limited support)

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