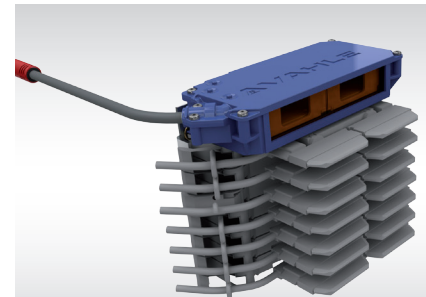
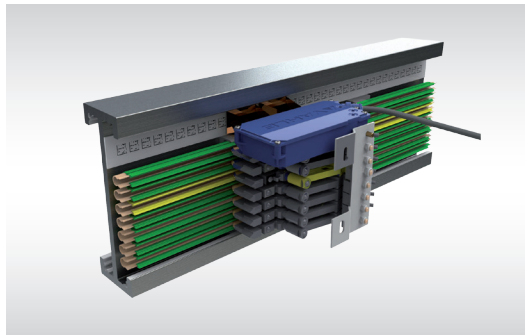
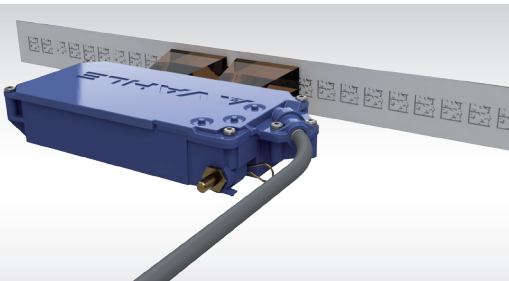




VAHLE
powered by **DETO**

APOS Optic Absolute Positioning System

SYSTEMS IN MOTION



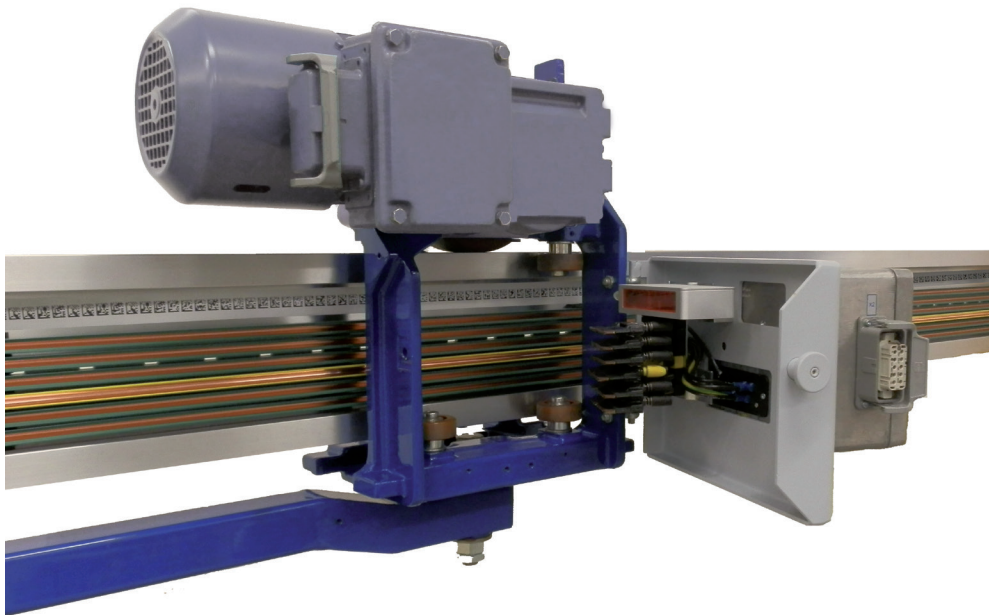
APOS Optic was developed for automated handling systems. This positioning system is especially designed to meet specific requirements of EMS and rail guided vehicle systems.

Specifications

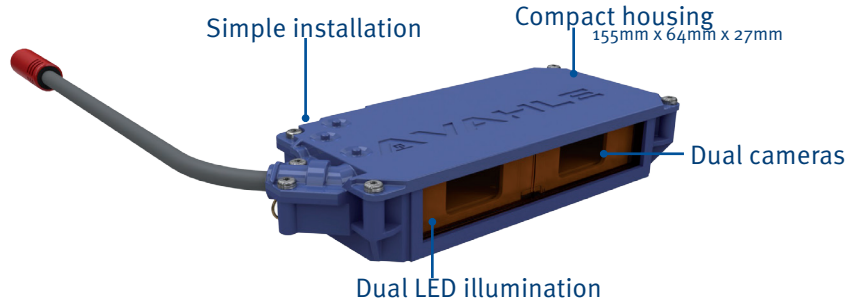
- Absolute position determination up to 10,000 m total system length
- Contactless
- Compact design and reliable transmission by DataMatrix-code
- Travel speed up to 180 m/min
- Resolution: +/- 1 mm
- Operating temperature: 0 – 60° C
- Minimum bending radius
 - horizontal = 750 mm
 - vertical = 2300 mm
- Two cameras per reading head w/ LED light source

Why APOS Optic?

- No additional support for the reading head required
 - simple installation
 - integrated into the collector assembly
- Compact assembly - less space requirements
- Unaffected by external light sources
- Power, positioning, data & control systems from one provider
- Dual cameras per reading head
 - Able to bridge code gaps up to 40mm
 - High redundancy/reliability



Reading head



- Standard mounting distance: 36 mm
- Depth of field: +/- 14 mm
- Mounts to standard collector bracket
- 6 codes read simultaneously
- Start-Up Time < 2 seconds
- RS 485 or SSI Interface
- Rated to IP54

Type	No. of cameras	Description	Interface	Band rate	Order-no.
LK-O2-RS485-D-576-D1-54	2	APOS optic reading head	RS485 interface Deto protocol	57600 Bit/s	10004140
LK-O2-RS485-D-625-D1-54	2	APOS optic reading head	RS485 interface Deto protocol	62500 Bit/s	10004141
LK-O2-RS485-S-576-D1-54	2	APOS optic reading head	RS485 interface Sick/Leuze protocol	57600 Bit/s	10005456
LK-O2-RS485-S-625-D1-54	2	APOS optic reading head	RS485 interface Sick/Leuze protocol	62500 Bit/s	10005457

Code strip

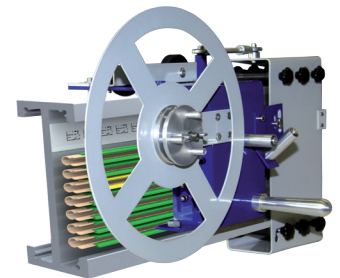
- DataMatrix-Code
- Code size 10 x 10 mm
- Height of code strip: 25 mm
- Max. coil length: 500m
- Adhesive backed for quick and easy installation



Type	Description	Order-no.
CB25-10X10	Codestrip CB25, height 25mm with 10x10 mm code image size	10004169

Spooling device for code strip

The spooling device serves as installation tool to glue the code strip onto the web of an EMS-track beam.



Type	Description	Order-no.
ABV-CB-EHB180	Spooling device EHB 180 for EMS profile 180x60	10004238
ABV-CB-EHB240	Spooling device EHB 240 for EMS profile 140x80	10004239

1 Open Conductor Systems	
Open conductor systems	1a
2 Insulated Conductor Systems	
U10	2a
U15, U25, U35	2c
U20, U30, U40	2d
3 Compact Conductor Systems	
VKS 10	3a
VKS - VKL	3b
4 Enclosed Conductor Systems	
KSL	4a
KBH	4b
MKH	4c
LSV - LSVG	4d
5 Contactless Power Supply	
Contactless power supply (CPS®)	5a
6 Data Transmission	
VAHLE Powercom®	6a
Slotted Microwave Guide (SMG, SMGM, SMGX)	6b
7 Positioning Systems	
VAHLE APOS®	7a
VAHLE APOS Optic	7b
8 Festoon Systems	
Light duty festoon systems - □ tracks & ◇ tracks	8a
Heavy duty festoon systems - I Beam tracks	8b
9 Reels	
Spring operated cable reels	9a
Motor powered cable reels	9b
10 Port Technology	
eRTG Solutions	10a
11 Control Systems	
VAHLE-DETO	11a
12 Other	
Battery charging contacts	12a
VMT	12b
BOK	12c
Specialty Components	Misc
<small>Conductor Rings , Heavy Enclosed, Handling Systems, Cleaning Components, Polarity Protection</small>	
13 Services	
Installation Services - On site supervision & training, pre-assembly, and commissioning	
Troubleshooting - Site inspection, maintenance, and repair	