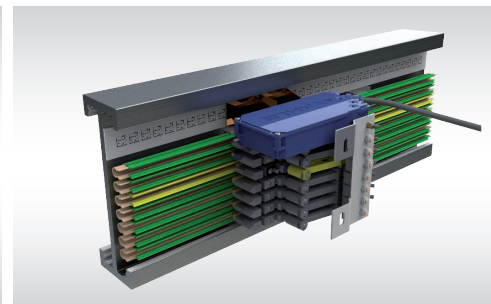
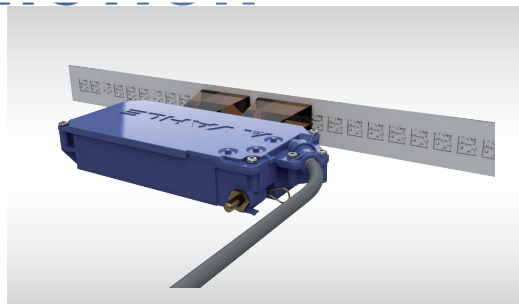
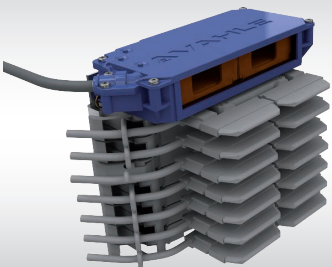


**VAHLE**  
powered by **DETO**

## APOS Optic Positioning System

### SYSTEMS IN MOTION



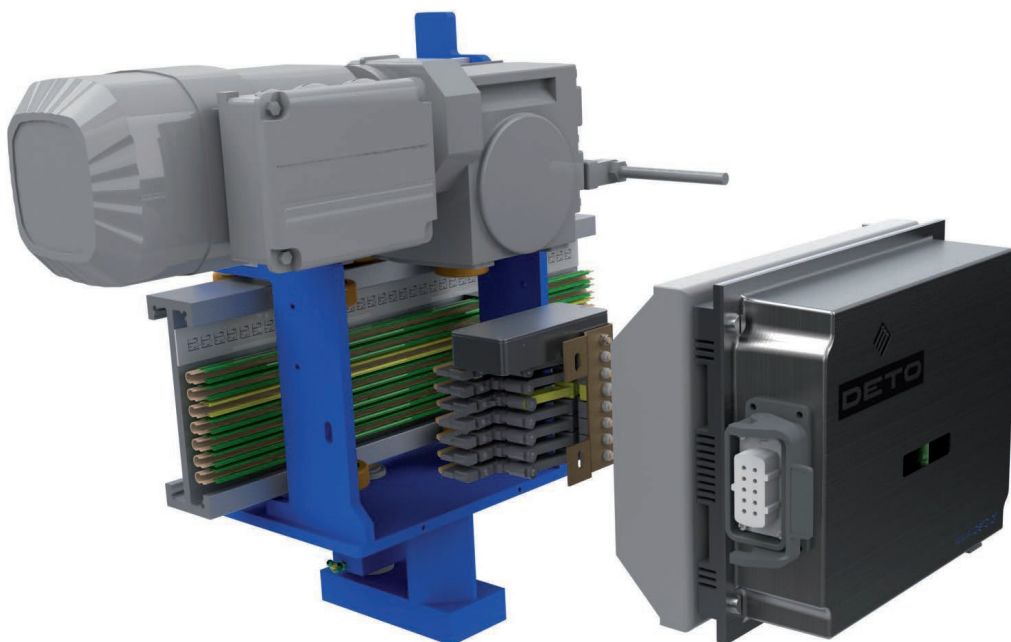
# APOS Optic was developed for automated handling systems. This positioning system is especially designed to meet specific requirements of EMS and rail guided vehicle systems.

## 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



## Code strip

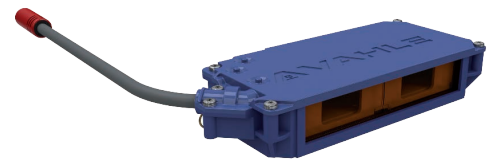
- DataMatrix-Code
- Code size 10 x 10 mm
- Height of code strip: 25 mm
- Max. coil length: 500m
- Adhesive backed for quick and easy installation



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

## Reading head

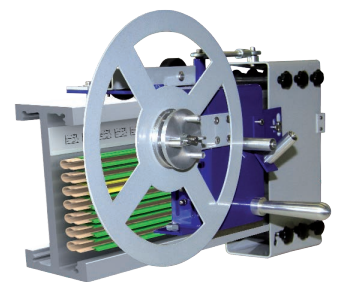
- Dual cameras
- Standard reading distance: 85 mm (other distances on request)
- Depth of field: +/- 14 mm
- Dual LED illumination
- Mounts to standard collector bracket
- Compact housing (153mm x 57mm x 28mm)



Type	No. of cameras	Description	Interface	Baud 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

## 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

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