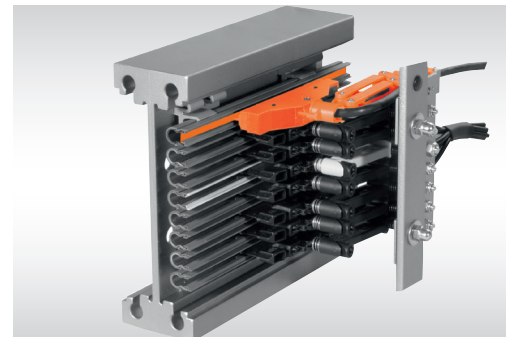# ΛVAHLE

APOS
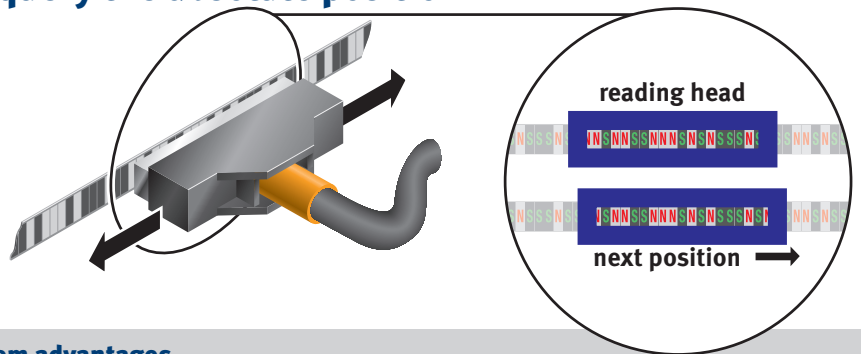## Absolute Positioning System

SYSTEMS IN MOTION

APOS Positioning Systems

were developed for automated handling systems in material flow technology.
The control system can constantly query the absolute position
of the mobile consumer.

Operation

Vahle-APOS consists of a code strip with magnetic coding and a reading head with integrated logic, which transmits the position to the control system via the interface. The intelligent reading head determines the position from the code strip and evaluates it for downstream control systems for processing.

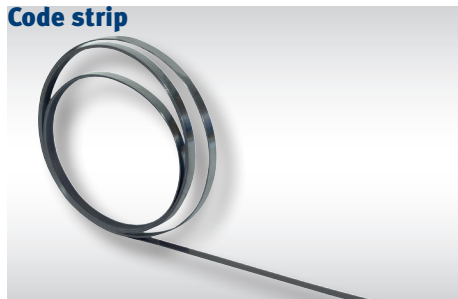**reading head**

next position ➡

System advantages

- absolute position determination up to 515 m
- Integration with conductor bar systems for spacing saving solutions or independently in parallel to the runway
- retrofit to existing systems
- absolute position immediately available when switching on or after a power failure
- travel speed up to 12 m/s

- resistant to environmental conditions such as dust or humidity
- unaffected by lighting conditions
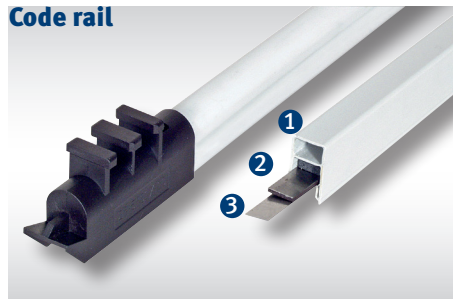- optical version available - see catalog 7b

Overview of APOS components

Code strip

The code strip comes factory assembled with a cross-magnetized specified code and given a digital length coding.
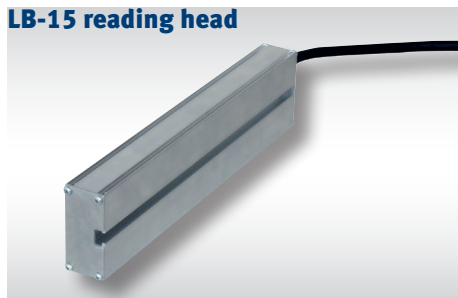
Code rail

The code rail consists of the support profile (1), the code strip (2), and the sliding strip (3). The sliding strip provides guidance for the APOS LKG-17 reading head.

LKG-17 reading head

Sliding scanner for powerail systems U 10 and VKS 10.

LB-15 reading head

Contactless scanning for powerail systems KBH and MKH.

Reading head carrier LW

Guide carrier for the mounting of the LB contactless reading head for KBH and MKH conductor line

SU interface module

Logging of APOS to CANopen, Profibus DP and others.

Intelligent solutions...
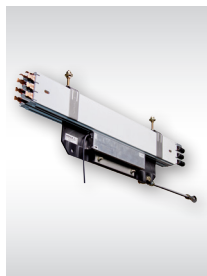## Integrated VAHLE conductor bar and APOS positioning systems

U 10　　　**KBH**　　　**MKH**　　　**VKS 10**

10-pole　　　**11-pole**

Type	Details	Interface	U 10	KBH	MKH	VKS 10 10-pole	VKS 10 11-pole	Order-no.
Contactless reading head								
LB15-RS485	Standard-Schutz	RS485		●	●			2823159
LB15-SSI Gray	Standard-Schutz	SSI (Gray Code)		●	●			2823252
LB15-SSI binary	Standard-Schutz	SSI (binary code)		●	●			2823557
LB15-RS485 IP54	IP54-Schutz	RS485		●	●			2823555
LB15-SSI Gray IP54	IP54-Schutz	SSI (Gray Code)		●	●			2823554
Sliding reading head								
LLG-C 17	Single Arm (Long)	SSI(Gray Code)	●			●	●	2823696
LLG-C 17	Single Arm (Long)	RS485	●			●	●	2823693
LKG-A 17	Single Arm (Short)	SSI (Gray Code)	●			●	●	2823681
LKG-A 17	Single Arm (Short)	RS485	●			●	●	2823626
Accessories								
SU - CAN	Interface module		○			○	○	2823262
SU - Profibus für LB	Interface module			○	○			2823263
SU - Profibus f. LKG u. LLG	Interface module		○			○	○	2518699
SU - Interbus	Interface module		○			○	○	2823264
CB 75	Code band 7.5 mm			●	●			2823254
CB 80	Sliding rail 8 mm		●			●	●	2823255
FP 20	Fixing profile							2823280
FP 25	Fixing profile			●	●			2823257
GB 80	Sliding rail 8 mm		●			●	●	2823446
TPA - U 10 - 6	Support profile		●					2823258
TPA - FABA 100 - 4	Support profile							2806571
TPA - VKS 10/10 - 6	Support profile					●		2823259
TPA - VKS 10/11 - 6	Support profile						●	2823265
LWK	Reading head carrier			●				2823445
LWM	Reading head carrier				●			2823261
ZAK	Accessories			●	●			2823281
ZAM	Accessories							2823282

*Consult factory for additional model types

● = required , ○ = optional

Products and Service

Catalog No. 7a | 2016

VAHLE
ELECTRIFICATION SYSTEMS

certified by DQS according to Din EN
ISO 9001:2008 OHSAS 18001:2007
(Reg. Nr. 003140 QM 08/BSOH)