

Agilox

AGILOX PRODUCTS

ONE / NFK / OCF / ODM / BCO / IO / Analytics





**MOVING AND
LIFTING TO
MAKE WORK-LIFE
EASY AND SAFE.**

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THE AGILE VEHICLE
SMALL AND AGILE, THE AGILOX ONE MOVES
EASILY THROUGH NARROW AISLES

DIMENSIONS

(L x W x H)

1,511 MM
59.5 IN

810 MM
31.9 IN

1,862 MM
73.3 IN

PERFORMANCE DATA

620 MM
24.4 IN

500 MM
19.7 IN

1,000 KG
2,204 LBS

1.4 M/S
4.6 FT/S

max. lift height

max. station height
Reference: Euro pallet

max. lift weight

max. speed

AGILOX ONE 1,200 mm
/ 47.2 IN with obstacle
avoidance, single
scissors and signal
light package



SPECIFICATIONS

4 omnidirectional
drive units

Drive system

Dual electric
spindles

Lift system

LiFePO4 with BMS
3 min charging
= 1 h operation

Battery

400 kg / 880 lbs

Unit weight

< 12 hours (1 vehicle)
/ 15 minutes
(each additional
AMR)

Commissioning time

CE, declaration of
conformity

Certification

205 mm / 8.1 IN width
92 mm / 3.6 IN height

Fork dimensions

577 mm
/ 22.7 IN

Overall fork width

MAXIMUM EFFICIENCY

ALL PRODUCTS POWERD
BY THE PROVEN AGILOX
X-SWARM TECHNOLOGY



ONE VARIATIONS



ONE Double Scissor Lift

AGILOX ONE 1,200 mm / 47.2 IN
with double scissor lift system

Fork length 1,200 mm / 47.2 IN
Double Scissor Lift
max. lift weight
750 kg / 1653.5 lbs
max. lift height
1,110 mm / 43.7 IN
max. station height
1,000 mm / 39.4 IN



ONE 1400

AGILOX ONE with 1,400 mm / 55.1
IN length lift forks

Fork length 1,400 mm / 55.1 IN
Single Scissor Lift
max. lift weight
750 kg / 1653.5 lbs
max. lift height
620 mm / 24.4 IN
max. station height
500 mm / 19.7 IN



ONE 1600

AGILOX ONE with 1,600 mm / 63 IN
length lift forks

Fork length 1,600 mm / 63 IN
Single Scissor Lift
max. lift weight
750 kg / 1653.5 lbs
max. lift height
620 mm / 24.4 IN
max. station height
500 mm / 19.7 IN



ONE 1800

AGILOX ONE with 1,800 mm / 70.9
IN length lift forks

Fork length 1,800 mm / 70.9 IN
Single Scissor Lift
max. lift weight
750 kg / 1653.5 lbs
max. lift height
620 mm / 24.4 IN
max. station height
500 mm / 19.7 IN

ONE ADD-ONS



Obstacle Avoidance

Additional 3D sensor system in
the direction of travel to increase
safety in human-machine mixed
environments



Signal Light Package

Light signal to increase safety in
human-machine mixed environ-
ments (color: blue / green / red),
additional signal lights in the fork
tips (color: white / yellow)



Barcode Reader

Scanner for detection of barcodes
or QR codes



ESD Protection

Protection or discharge measure
for operation in areas with ESD
requirements to prevent electros-
tatic charging



Rubber guards

Rubber guards as dirt deflectors
in the front area of the vehicle and
on the fork tips



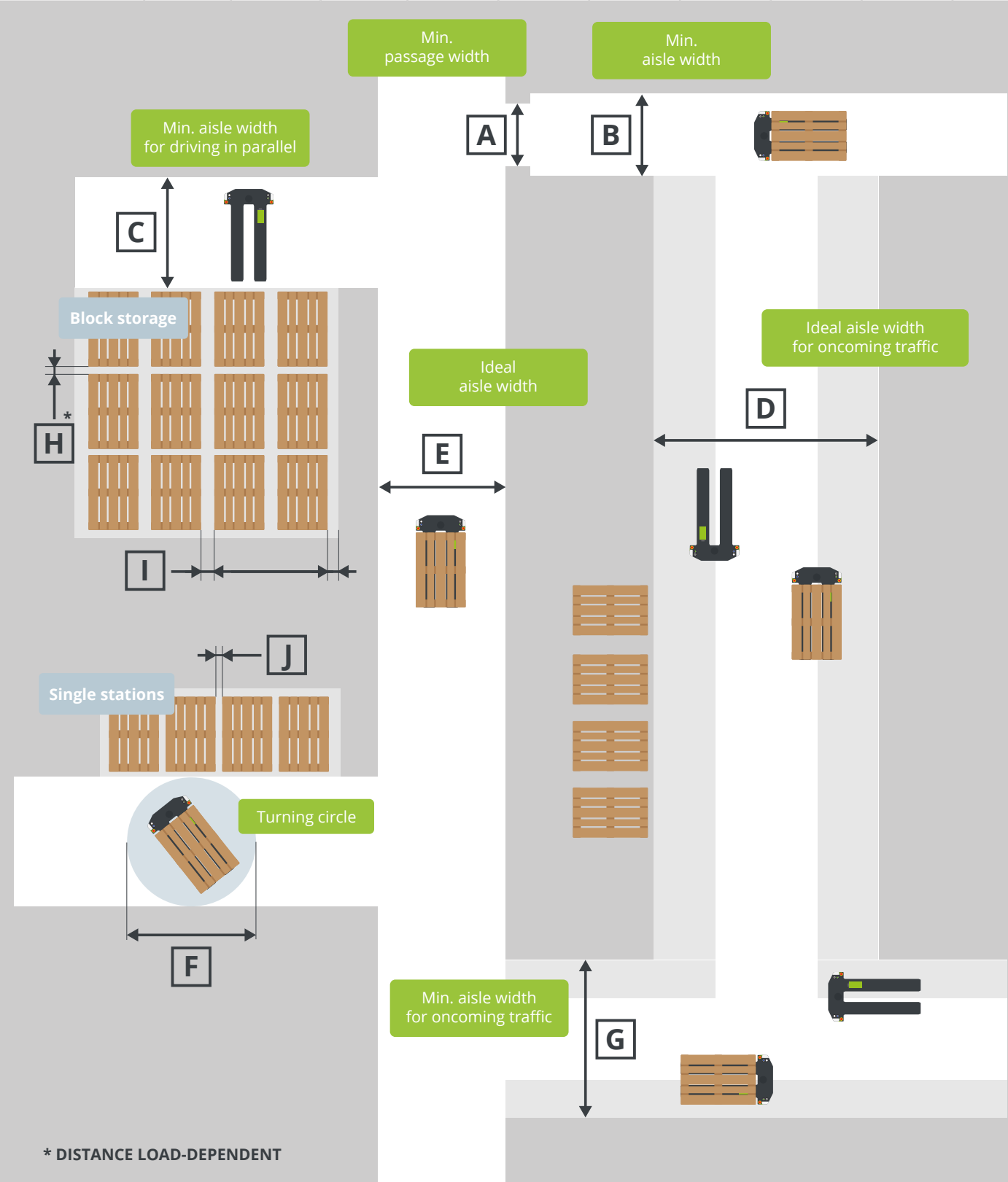
Mobile Charging Device

One mobile charger is recommen-
ded per AGILOX fleet (connection
230V / 16A)

AGILOX ONE

DRIVE PATH DESIGN

Load Carrier	A	B	C	D	E	F	G	H	I	J
Euro Pallet 1200 x 800 MM 47.2 x 31.5 IN	1400 MM 55.1 IN	1500 MM 59.1 IN	1800 MM 70.9 IN	2800 MM 110.2 IN	1800 MM 70.9 IN	2100 MM 82.7 IN	2600 MM 102.4 IN	50 MM 2 IN	200 MM 8 IN	100 MM 4 IN



NARROW FORK
THE AGILOX ONE WITH A MONO FORK
FOR NARROW LOAD CARRIERS

DIMENSIONS

(L x W x H)

1,511 MM × **810 MM** × **1,862 MM**
59.5 IN × **31.9 IN** × **73.3 IN**

PERFORMANCE DATA

620 MM **1,000 KG** **1.4 M/S**
24.4 IN **2,204 LBS** **4.6 FT/S**
max. lift height max. lift weight max. speed

AGILOX NFK with
obstacle avoidance and
signal light package



SPECIFICATIONS

**4 omnidirectional
drive units**

Drive system

**Dual electric
spindles**

Lift system

**LiFePO4 with BMS
3 min charging
= 1 h operation**

Battery

400 kg / 880 lbs

Unit weight

**< 12 hours (1 vehicle)
/ 15 minutes
(each additional
AMR)**

Commissioning time

**CE, declaration of
conformity**

Certification

92 mm / 3.6 IN

Fork height

420 mm / 16.5 IN

Fork width

MAXIMUM EFFICIENCY

**ALL PRODUCTS POWERED
BY THE PROVEN AGILOX
X-SWARM TECHNOLOGY**



NFK ADD-ONS



Obstacle Avoidance

Additional 3D sensor system in the direction of travel to increase safety in human-machine mixed environments



Signal Light Package

Light signal to increase safety in human-machine mixed environments (color: blue / green / red), additional signal lights in the fork tips (color: white / yellow)



Barcode Reader

Scanner for detection of barcodes or QR codes



ESD Protection

Protection or discharge measure for operation in areas with ESD requirements to prevent electrostatic charging



Rubber guards

Rubber guards as dirt deflectors in the front area of the vehicle and on the fork tips



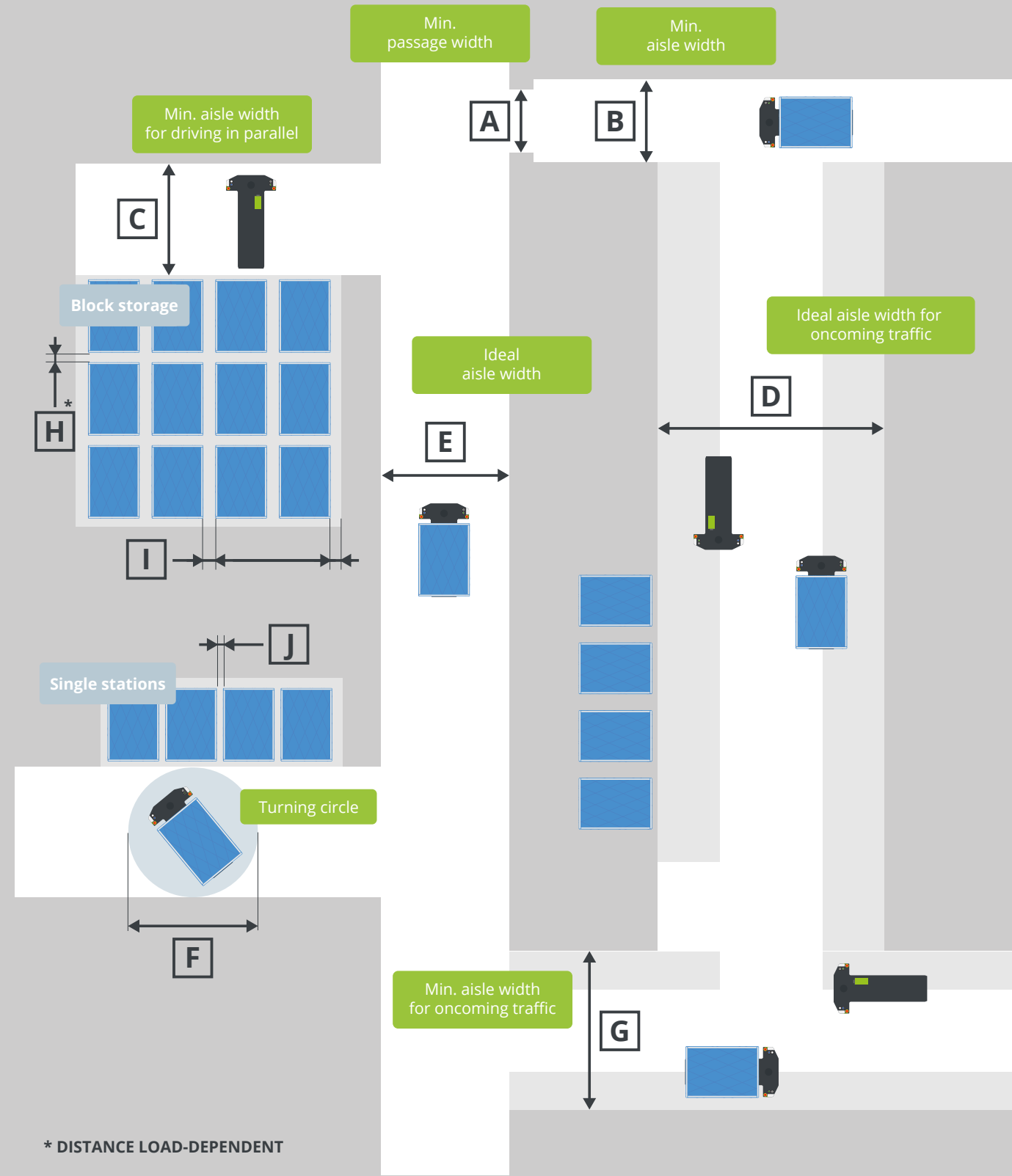
Mobile Charging Device

One mobile charger is recommended per AGILOX fleet (connection 230V / 16A)

AGILOX NFK

DRIVE PATH DESIGN

Load Carrier	A	B	C	D	E	F	G	H	I	J
Load Carrier 1200 x 800 MM 47.2 x 31.5 IN	1400 MM 55.1 IN	1500 MM 59.1 IN	1800 MM 70.9 IN	2800 MM 110.2 IN	1800 MM 70.9 IN	2100 MM 82.7 IN	2600 MM 102.4 IN	50 MM 2 IN	200 MM 8 IN	100 MM 4 IN



FOR HEAVY LOADS
THE OMNIDIRECTIONAL COUNTERBALANCED
AGILOX OCF IS A REAL POWERHOUSE

DIMENSIONS

(L x W x H)

2,784 MM × 1,200 MM × 2,566 MM
109.6 IN × 47.3 IN × 101 IN

PERFORMANCE DATA

1,600 MM 1,450 MM 1,500 KG 1.4 M/S
63 IN 57.1 IN 3,306 LBS 4.6 FT/S

max. lift height max. station height max. lift weight max. speed

*Reference: Euro pallet

AGILOX OCF with fork
1,200 mm / 47.3 IN and
obstacle avoidance



SPECIFICATIONS

3 omnidirectional
drive units

Drive system

Electric
Lift system

LiFePO4 with BMS
3 min charging
= 1 h operation

Battery

3,600 kg / 7,940 lbs

Unit weight

< 12 hours (1 vehicle)
/ 15 minutes
(each additional
AMR)

Commissioning time

CE, declaration of
conformity

Certification

125 mm / 4.9 IN width
70 mm / 2.8 IN height

Fork dimensions

500 mm / 19.7 IN min.
950 mm / 37.4 IN max.

Overall fork width

MAXIMUM EFFICIENCY

ALL PRODUCTS POWERD
BY THE PROVEN AGILOX
X-SWARM TECHNOLOGY



OCF VARIATIONS



OCF 1400

AGILOX OCF with 1,400 mm / 55.1
IN length lift forks

Fork length 1,400 mm / 55.1 IN
max. lift weight
1,200 kg / 2645.5 lbs
max. lift height
1,600 mm / 63 IN
max. station height
1,450 mm / 57.1 IN



OCF LC

AGILOX OCF with reduced lift mast
height

Fork length 1,200 mm / 47.2 IN
max. lift weight
1,500 kg / 3306.9 lbs
max. lift height
1,200 mm / 47.2 IN
max. station height
1,050 mm / 41.3 IN

OCF ADD-ONS



Barcode Reader

Scanner for detection of barcodes
or QR codes



Mobile Charging Device

One mobile charger is recommen-
ded per AGILOX fleet (connection
230V / 16A)



OCF Lifting Aids



Standard Stationary
Charging Station

Stationary charging station for the
AGILOX OCF (connection 400V /
16A)



Quick Stationary
Charging Station

Stationary fast charging station for
the AGILOX OCF (connection 400V
/ 32A)



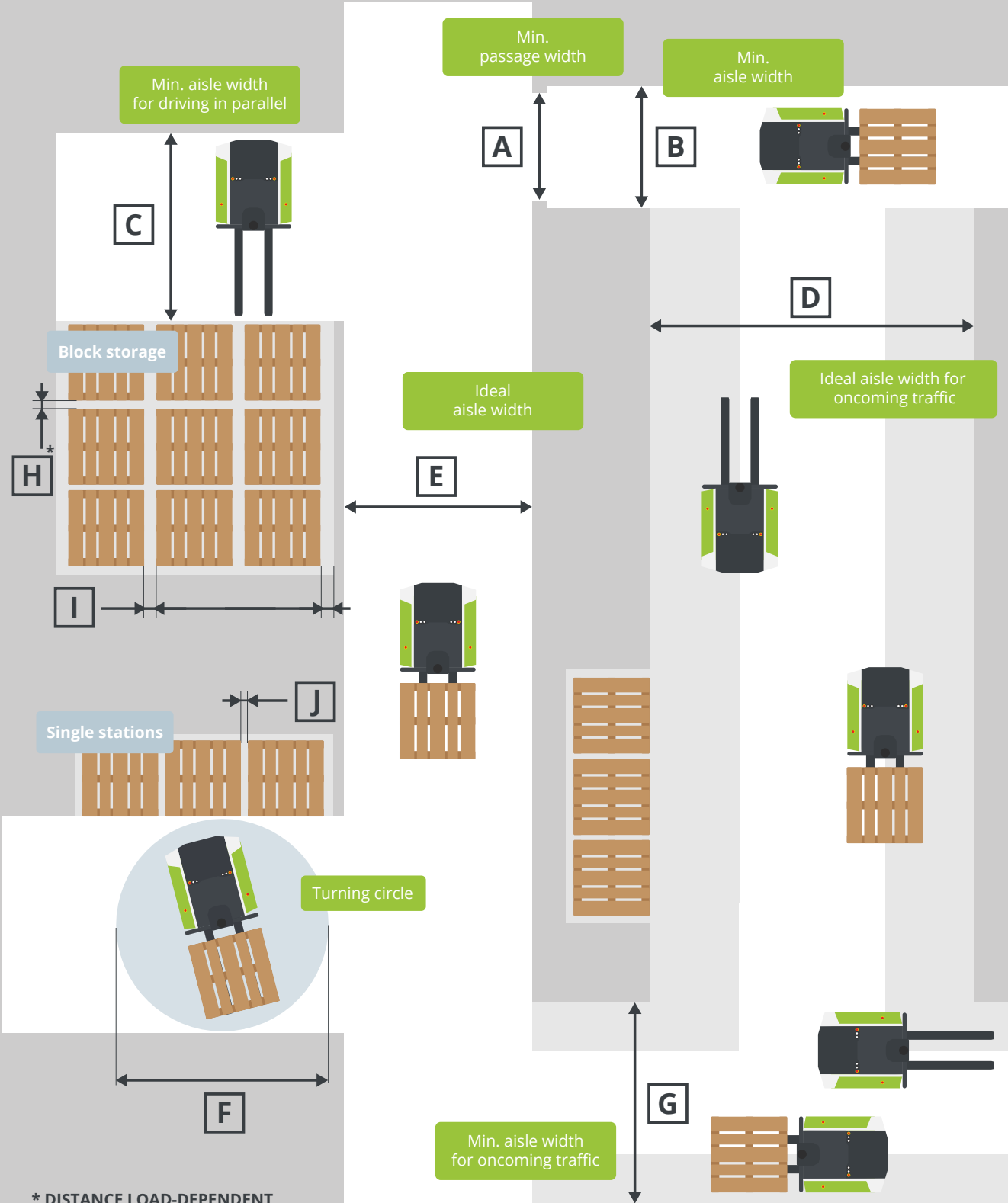
Obstacle Avoidance

Additional 3D sensor system in
the direction of travel to increase
safety in human-machine mixed
environments

AGILOX OCF

DRIVE PATH DESIGN

Load Carrier	A	B	C	D	E	F	G	H	I	J
Pallet 1200 x 1200 MM 47.2 x 47.2 IN	1700 MM 66.9 IN	2100 MM 82.7 IN	3200 MM 126 IN	3800 MM 149.6 IN	2700 MM 106.3 IN	3500 MM 137.8 IN	3200 MM 126 IN	100 MM 4 IN	200 MM 7.9 IN	100 MM 4 IN



OMNIDIRECTIONAL DOLLY MOVER

MADE FOR INTELLIGENT TRANSPORTS

OF SMALL LOAD CARRIERS

DIMENSIONS

(L x W x H)

1,095 MM
43.1 IN

×

400 MM
15.8 IN

×

1,235 MM
48.6 IN

PERFORMANCE DATA

250 MM
9.8 IN

max. lift height

300 KG
661 LBS

max. lift weight

1.4 M/S
4.6 FT/S

max. speed



SPECIFICATIONS

2 omnidirectional
drive units

Drive system

Single electric
spindles

Lift system

LiFePO4 with BMS
3 min charging
= 1 h operation

Battery

160 kg / 352 lbs

Unit weight

< 12 hours (1 vehicle)
/ 15 minutes
(each additional
AMR)

Commissioning time

CE, declaration of
conformity

Certification

205 mm / 8.1 IN

Fork width

95 mm / 3.8 IN

Fork height

MAXIMUM EFFICIENCY

ALL PRODUCTS POWERED
BY THE PROVEN AGILOX
X-SWARM TECHNOLOGY



ODM ADD-ONS



Obstacle Avoidance

Additional 3D sensor system in the direction of travel to increase safety in human-machine mixed environments



Signal Light Package

Light signal to increase safety in human-machine mixed environments (color: blue / green / red), additional signal lights in the fork tips (color: white / yellow)



Barcode Reader

Scanner for detection of barcodes or QR codes



Mobile Charging Device

One mobile charger is recommended per AGILOX fleet (connection 230V / 16A)



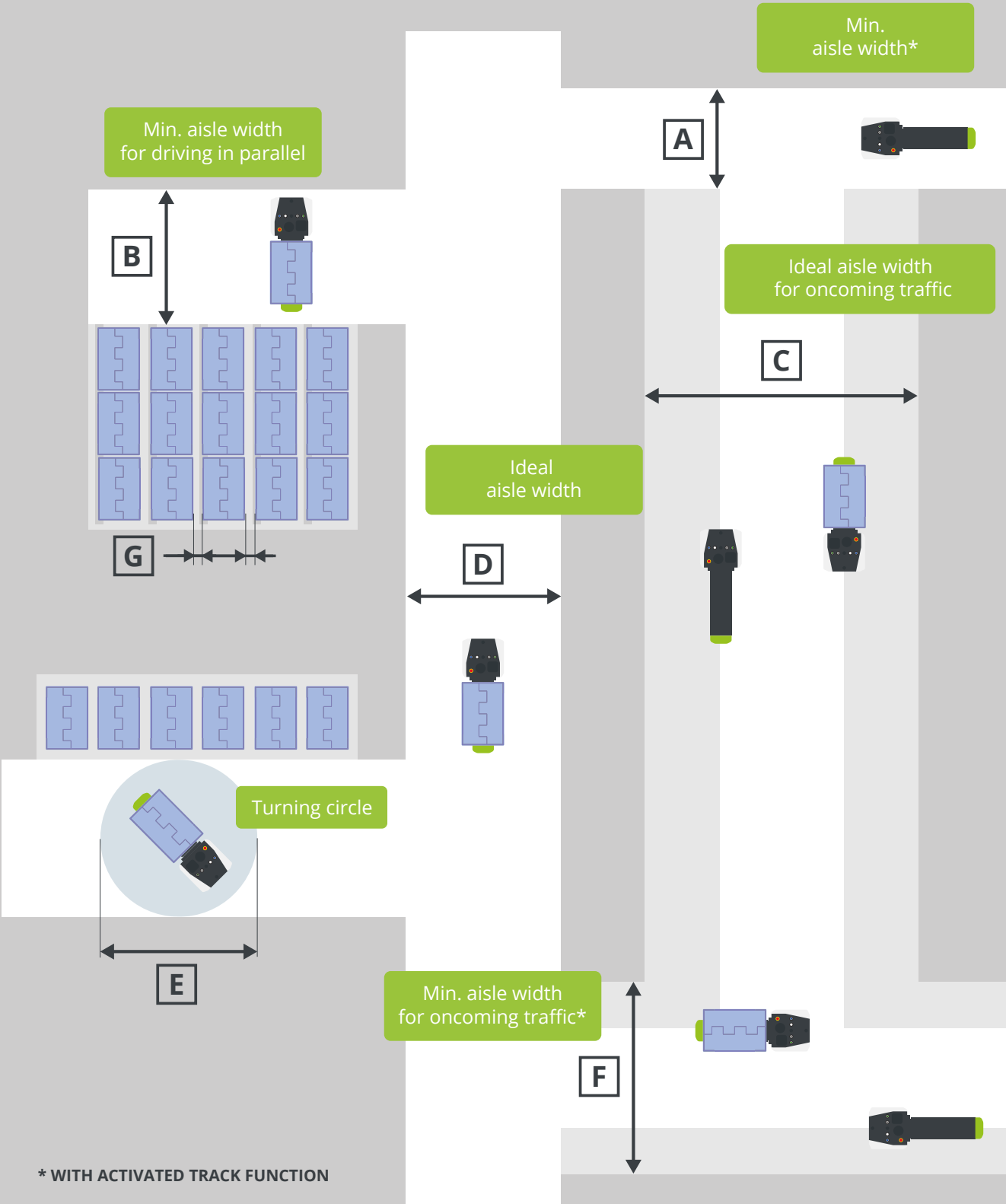
ESD Protection

Protection or discharge measure for operation in areas with ESD requirements to prevent electrostatic charging

AGILOX ODM

DRIVE PATH DESIGN

Load Carrier	A	B	C	D	E	F	G
Dolly 600 x 400 MM 23.6 x 15.7 IN	1000 MM 39.4 IN	1300 MM 51.2 IN	2500 MM 98.4 IN	1700 MM 66.9 IN	1700 MM 66.9 IN	1800 MM 70.9 IN	50 MM 2 IN



WITH THE AGILOX BOX CARRIER,
BOXES AND TRAYS CAN BE
MOVED EFFORTLESSLY

BOX CARRIER

The AGILOX BCO (Box Carrier) is an add-on unit that sits on top of the AGILOX ONE fork system. Power and controls are transmitted via CAN bus, and the connection is made automatically – no human interaction is required to complete the retooling process. The standard top section consists of two belt conveyors, and the conveyor technology can be expanded to up to eight conveyors on four levels.

DIMENSIONS

(L x W x H)

1,161 MM
45.7 IN

800 MM
31.5 IN

250 MM
9.8 IN

LOAD CARRIER

55 KG
121 LBS

400 MM
15.7 IN

600 MM
23.6 IN

max. box weight

max. box width

max. box length

DELIVERY HEIGHT

720 MM
28.3 IN

1,210 MM
47.6 IN

max. station height
single scissor lift

max. station height
double scissor lift



Box Carrier single level
with belt conveyor



Box Carrier two levels
with roll conveyor

BCO VARIATIONS

1 to 4 levels

Number of levels

Individually
customizable
height levels

Level height

Between 2 and 8
conveyors

Number of conveyors

Roll or
Belt conveyor

Conveyor type

Integrated scale

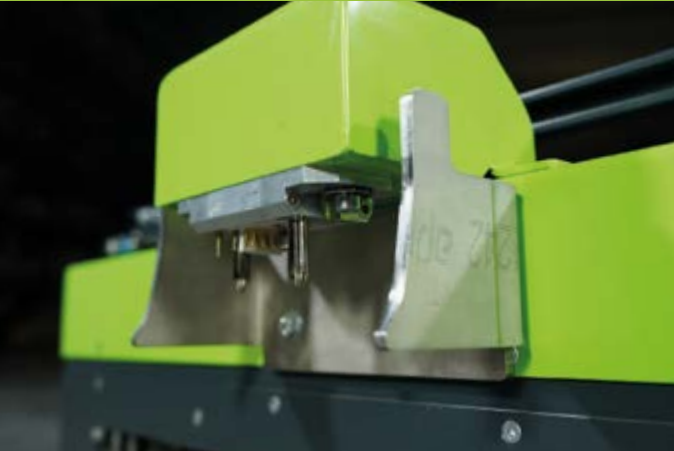
Optional add-on



CONNECTOR ONE / BCO

AGILOX ONE connector for BCO

Connector BCO



MAXIMUM EFFICIENCY

ALL PRODUCTS POWERD
BY THE PROVEN AGILOX
X-SWARM TECHNOLOGY



THE AGILOX IO BOX ENABLES COMMUNICATION WITH PERIPHERAL DEVICES

AGILOX IO

The AGILOX IO is an industrial control system (Beckhoff or Siemens) with potential-free relay outputs and digital inputs (24VDC), which is connected to the AGILOX network. It is used as an interface with the system operator's automation world and connects fieldbus systems and the IOs with the AGILOX network to ensure the required data exchange.



StandardSi 14/10

StandardBE 12/6

MiniSI 6/4



Type	StandardSi 14/10	StandardBE 12/6	MiniSI 6/4
Art.-Nr.	900008	900006	900001
PLC Manufacturer	Siemens	Beckhoff	Siemens
Control Cabinet	760 x 760 x 300 mm (WxHxD)	400 x 300 x 155 mm (WxHxD)	254 x 180 x 111 mm (WxHxD)
Input Count	14	12	6
Output Count	10	6	4
Output Characteristics	potential-free	potential-free	potential-free
I/O Extension Possible	max. 7 x IO Extension SI 16/16	No	No
Network Connection	Ethernet	Ethernet	Ethernet
Decentralized IOs possible	No	No	No
Assembly and Wiring	by customer	by customer	by customer
Required Power Supply	110 - 230 VAC	110 - 230 VAC	110 - 230 VAC

MAXIMUM EFFICIENCY

ALL PRODUCTS POWERD BY THE PROVEN AGILOX X-SWARM TECHNOLOGY



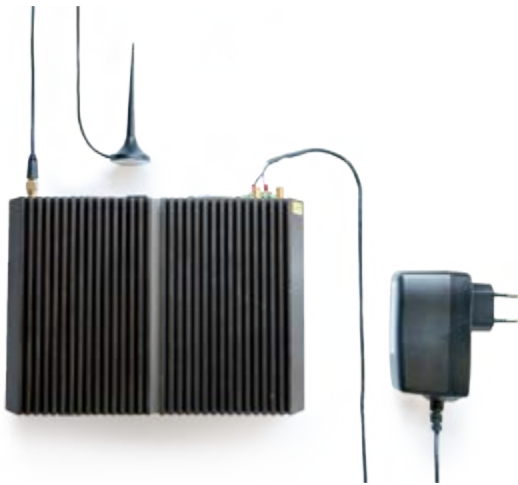
AGILOX IPC - GATEWAY APPLIANCE

AGILOX swarms do not require a fleet manager. The vehicles communicate with each other via WiFi and with higher-level IT systems (e.g. ERP, WMS, MES). In order to provide a constant connection to these higher-level systems, which can also be reached via Ethernet, a Gateway Appliance can be installed. This instance consists of an industrial PC running the AGILOX Core Software. This means that orders from higher-level systems can also be transferred to the AGILOX system if, for example, all AGILOX vehicles are switched off or no WiFi is available at the moment.



IPC

Type	Simple IPC
Art.-Nr.	900017
PLC Manufacturer	-
Control Cabinet	No
Input Count	-
Output Count	-
Output Characteristics	-
I/O Extension Possible	No
Network Connection	Ethernet + WiFi
Decentralized IOs possible	No
Assembly and Wiring	by customer
Required Power Supply	230V



AGILOX HYBRID BOX

The Hybrid Box combines the communication interface to automation units (IO Box) and IT systems (Gateway Appliance) in one control cabinet.



IPC



Beckhoff
Siemens

Type	Hybrid BE	Hybrid SI
Art.-Nr.	900018	900019
PLC Manufacturer	Beckhoff	Siemens
Control Cabinet	400 x 800 x 300mm (WxHxD)	760 x 760 x 300mm (WxHxD)
Input Count	12	14
Output Count	6	10
Output Characteristics	potential-free	potential-free
I/O Extension Possible	No	max. 7xIO Extension SI 16/16
Network Connection	Ethernet + WiFi	Ethernet + WiFi
Decentralized IOs possible	No	No
Assembly and Wiring	by customer	by customer
Required Power Supply	110V-230V	110V-230V



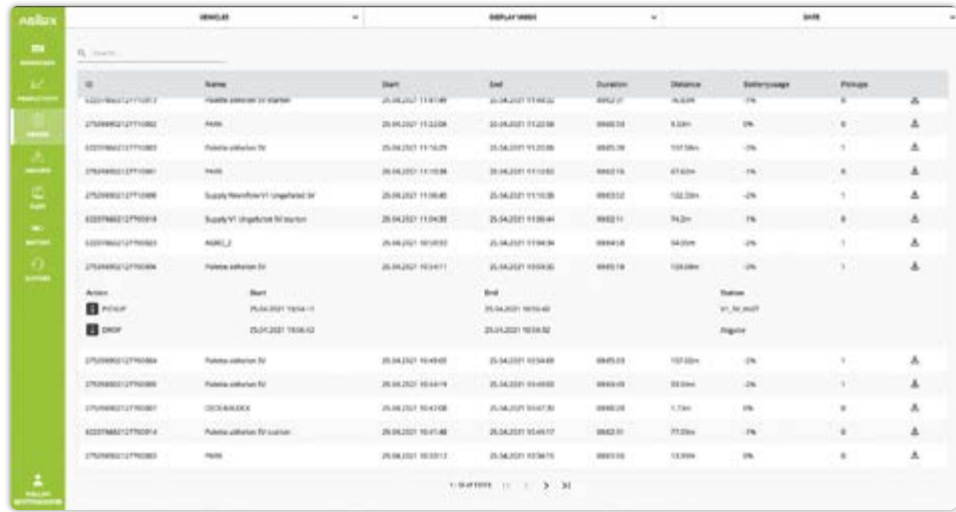
AGILOX ANALYTICS ENABLES REALTIME PERFORMANCE ANALYSIS TO IMPROVE THE EFFICIENCY OF LOGISTICS PROCESSES

Type	StandardSI WiFi 14/10	Decentral BE 8/4
Art.-Nr.	900010	900011
PLC Manufacturer	Siemens	Beckhoff
Control Cabinet	760 x 760 x 300 mm (WxHxD)	400 x 300 x 155 mm (WxHxD)
Input Count	14	8
Output Count	10	4
Output Characteristics	potential-free	potential-free
I/O Extension Possible	max. 7 x IO Extension SI 16/16	Beckhoff EP2338-1001
Network Connection	Ethernet	Ethernet
Decentralized IOs possible	No	max. 12 boxes with 8 digital channels each (max. 32 outputs can be used)
Assembly and Wiring	by customer	by customer
Required Power Supply	110V-230V	110V-230V

Collecting various process data and analyzing it is a key factor in optimizing operations in the material handling industry - especially when it can be done easily via a browser without any additional effort. As logistics processes are automated by AGILOX vehicles, the volume of data increases, and with it the opportunity to make use of it. In AGILOX Analytics, the collected data is compiled and clearly presented. While our vehicles directly increase efficiency in operation, our private cloud-based data analysis platform AGILOX Analytics offers the possibility to do performance analysis as well as to get software support for the complete AGILOX fleet.

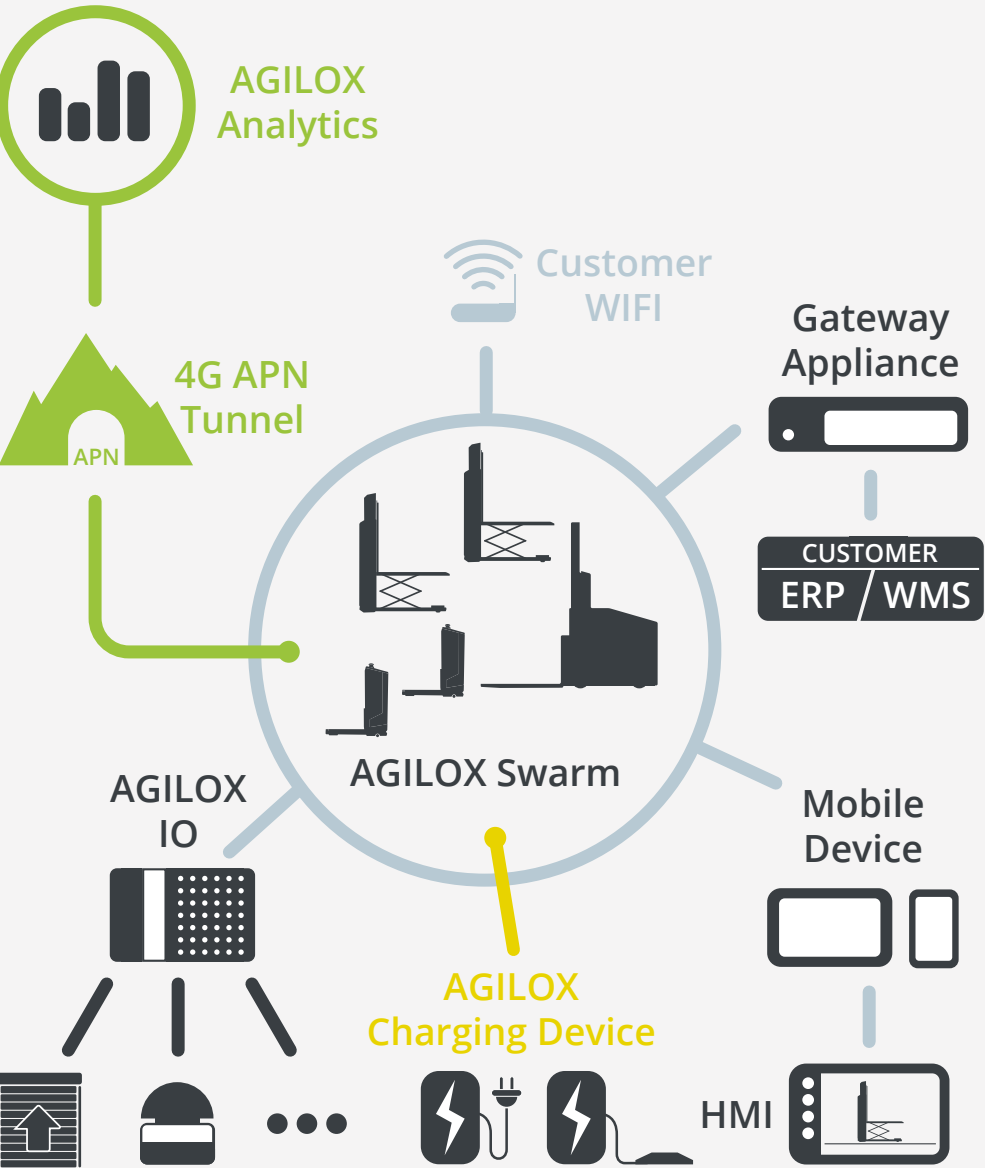
Because data security plays an essential role, AGILOX relies on a sophisticated security concept with a certified data center (ISO 27001). Data encryption to the highest security standards and a private connection to our cloud-based analytics platform, where the data is processed, guarantee the protection of customer data from unauthorized access and thus maximum data security.

AGILOX Analytics offers the possibility to analyze logistics processes as well as the condition of vehicles. More than 3.5 billion data points generated per vehicle in a year enable near real-time performance analysis down to the second over the entire service life. Sophisticated and detailed reports as well as an ongoing expansion of functions accommodate profound performance analysis. As a result, the productivity and efficiency of the entire logistics and production processes can be continuously improved, and forward-looking strategic decisions can be made. Browser-based access to the data is possible anytime and anywhere - whether via PC, tablet or smartphone.



AGILOX
SYSTEM OVERVIEW

Using AGILOX AMRs is possible without any adjustments and additions to the existing IT infrastructure. Thanks to swarm intelligence, no central fleet manager must be installed. AGILOX' plug and perform feature only requires customer-provided WiFi and a 3-phase AC power connection for charging the units. Open interfaces allow the system to be flexible and dynamically connected with the environment. Vehicle navigation does not require any additional infrastructure, and the system adapts to changing environments, almost automatically and adheres to the highest safety standards.



AGILOX Charging

24/7 operations without changing the battery.
60 minutes of operation - 3 minutes to charge.

Customer WIFI

Customer-provided WiFi is required in order for vehicles to communicate with each other.

Customer ERP / WMS

Customer systems (e.g. ERP, WMS, MES, etc.) can be connected via the AGILOX.JSON API.

AGILOX Swarm

Swarm Intelligence powers the AGILOX fleet navigation.

Mobile Device

The AMRs are controlled via mobile devices (e.g. smartphone, tablet, etc.) with browser access.

AGILOX HMI

The HMI is mapped in the web browser and is always available to interact with AGILOX vehicles.

AGILOX IO Box

The IO Box assists the customer in connecting their existing infrastructure (e.g. roller doors, fire alarm systems) with the AGILOX network.

AGILOX Analytics

Access to the most important KPIs and data anytime and anywhere.

OUR CUTTING-EDGE TECHNOLOGY
FOR YOUR SUCCESS

Follow a transport order of
an AGILOX ONE 



PRODUCTION HALL



// TIME SAVING SIMPLICITY

Highly flexible autonomous mobile robots for **your ever evolving challenges.**

- Initial commissioning within a few hours
- Expansion of the fleet within minutes
- Adaptions to workflows within seconds



VISIT OUR WEBSITE WWW.AGILOX.NET