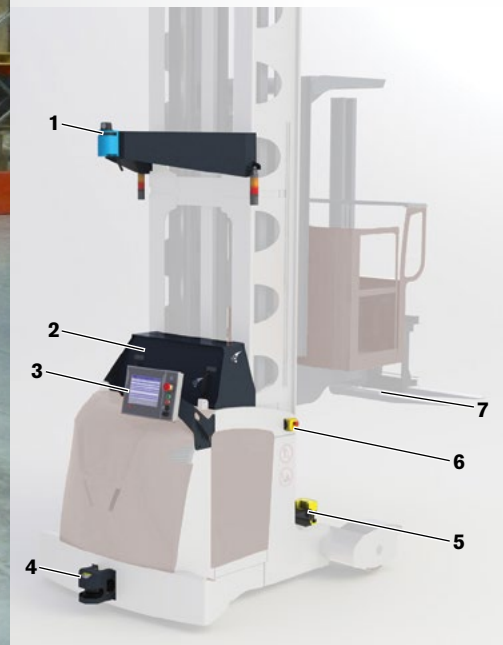


HYBRID E'GV DATA SHEET



## Hybrid E'gv<sup>®</sup> Series

The Hybrid series utilize KION North America vehicles (either Linde or STILL models) of a variety of types (such as forklifts, VNA, Tuggers, etc.) equipped with Egemin's AGV automation pack. The automation pack allows Hybrids to operate automatically in warehouses. This leads to significant cost reductions compared to manual fork truck fleets and to higher efficiency. Although products are moved and stored fully automatically, manual driving and product handling remain possible.

### Automation Pack Components

- E'nsor<sup>®</sup> software (Egemin Navigation System on Robot)
- Laser navigation via reflective & natural targeting with optional wire guidance in narrow aisles
- Safety system, featuring SICK components
- Industrial PC running Windows Embedded OS
- Operator interface, including MCU and touchscreen GDU.

#### Example Automation Pack Component Placement

1. Navigation laser & wireless LAN
2. Electrical cabinet (Industrial PC, Safety modules, SICK components)
3. HMI with MCU (Manual Control Unit)
4. Front safety scanner
5. Rear safety scanner
6. Additional emergency stop
7. Pallet position sensor (not displayed)

## Flexibility, Reliability, and Affordability

Unlike a standard fork truck, which always requires an operator, a Hybrid vehicle can be switched to automatic mode for as much or as little time is required. Using the Hybrid in automatic mode leads to reduced product damage and higher efficiency, but when a manual truck is needed, it's available for fork truck drivers to operate. That flexibility makes it easy to see the Hybrid E'gv<sup>®</sup> moving product in any facility. The Hybrid E'gv<sup>®</sup> increases productivity and profitability through on-time product delivery, zero product damage, and increased safety.

When used as an E'gv<sup>®</sup>, the Hybrid vehicles completely comply with the ANSI B56.5 safety specification and can be counted on to do the job an operator would usually do. The Hybrid E'gv<sup>®</sup> is fully integrable with any standard E'gv<sup>®</sup> system.

Safety and obstacle detection systems include components such as:

- Laser Safety sensors at front and rear of vehicle
- Optional side sensors for obstacle detection
- Various alarms indicating vehicle state or movement
- SICK components

### Hybrid E'gv<sup>®</sup> core functionality and benefits:

- Fully automatic and manual operation
- Standard off-the-shelf man-abeard base truck
- User-friendly operator controls
- Local service throughout North America
- Uses standard forklift batteries
- Manual operation capability eliminates system downtime due to unforeseen events.

The Hybrid E'gv<sup>®</sup> completes moves such as cross-docking and ATL staging, AS/RS pick/drop, end-of-line operations, deep lane product staging, drive-in racking, push-back racking, and standard pallet racking.

When flexibility in manual and automatic modes is needed, there is no substitute for the Egemin Hybrid E'gv<sup>®</sup>.



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