

Field Integrated Technology
MOVIFIT[®]

Innovative Decentralized Drive Systems



New solutions for decentralized installations MOVIFIT®: open and flexible

SEW-EURODRIVE's decentralized drive systems have been proving for years how compact and modular a decentralized control structure can be in a variety of applications. And yet, even in this area, the drive engineering requirements are becoming more and more demanding. System designers and operators are looking for alternatives that offer more efficiency earlier in the engineering planning stages for components and systems.

SEW-EURODRIVE has met these challenges by developing a new concept for installations covering a lot of floor space: The new MOVIFIT® system combines the well-known advantages of SEW-EURODRIVE decentralized installation

technology with modern, application-oriented drive and communication functions. The resulting application solutions can produce significant reductions in unit costs, setup times and startup work.

Driving the world – with innovative drive solutions that deliver superior performance for a vast range of applications in every industry – from automotive production to building materials manufacturing, from food & beverage handling to metals processing. When you choose drive technology “made by SEW-EURODRIVE“ you are getting a return on your power transmission investment that is second to none.





MOVIFIT® is the result of SEW-EURODRIVE's many years of experience in decentralized drive engineering. It is designed for complex materials handling applications in demanding fields, including the automotive and food and beverage industries and logistics.

An overview of the advantages of MOVIFIT® systems

- Lower system investment costs (unit costs – installation times – startup time)
- Reduce planning times by reusing standard conveyor components
- Reduce operating costs through faster maintenance and improved diagnostic options with efficient engineering tools
- Use of the latest communication technologies: EtherNet/IP, PROFINET, PROFI-safe, DeviceNet, and PROFIBUS
- Trouble-free adaptation and expansion of existing systems
- Simple drive handling despite the increasing complexity of conveyor functions and communication
- New unit design with modern connection technology for sophisticated conveyor systems
- Supports new strategies for optimized system topologies
- New power sections with frequency inverters and motor soft starters
- High level of integration
- Decentralized installation with central data storage
- Food grade unit designs
- Ready-to-use, flexible conveyor functions from SEW-EURODRIVE



MOVIFIT®: Designs and features

The MOVIFIT® system provides decentralized installation technology with the latest in application-oriented drive and communication functions.

MOVIFIT®-MC



- Up to three MOVIMOT® gearmotors can be connected via hybrid cable
- Voltage range 3 phase, 380 ... 500 V
- Integrated power distribution and motor cable protection
- Integrated communication interface
- Maintenance switch
- Function “Safe stop” by deactivation of 24V (MOVIMOT® supply)
- Stop categories 0 and 1 acc. to EN 60204-1
- Safety category 3 to EN 954-1
- 12 digital inputs + 4 digital inputs/outputs
- CAN/SBus interface
- Optional connection of sensors/actuators via external standard I/O boxes
- Simple and fast parameter setting via DIP switches or fieldbus

MOVIFIT®-SC



- Electronic soft starter
 - connection of two motors (dual motor starter) → one direction of rotation
 - connection of one motor (reversing starter) → two directions of rotation
- Power range
 - connection of two motors → 2 x 0.5 to 3 HP
 - connection of one motor → 1 x 0.5 to 5 HP
- Adjustable start ramp
- Voltage range 3 phase, 380 ... 500 V
- Increased safety by switching of three phases
- Integrated power distribution
- Integrated brake management for SEW three-wire brakes
- Control output for external brake control
- Optional maintenance switch
- Integrated communication interface
- Digital inputs/outputs
 - 6 DI + 2 DI/O with Classic function level
 - 12 DI + 4 DI/O with Technology function level or System
- CAN/SBus interface
- Optional connection of sensors/actuators via external standard I/O boxes
- Simple and fast parameter setting via DIP switches
- Expanded parameter setting via fieldbus or diagnostics interface

MOVIFIT®-FC

- Open-loop frequency inverter
- Power range from 0.5 to 5 HP
- Voltage range 3 phase, 380 ... 500 V
- Integrated power distribution
- Integrated brake management for SEW three-wire brakes
- Control output for external brake control
- Optional internal braking resistor
- Optional external braking resistor
- Optional maintenance switch
- Integrated communication interface
- Digital inputs/outputs
 - 6 DI + 2 DI/O with function level Classic
 - 12 DI + 4 DI/O with function level Technology or System
- CAN/SBus interface
- Optional connection of sensors/actuators via external standard I/O boxes
- Function “Safe stop” by deactivation of 24V (inverter supply)
 - Stop categories 0 and 1 acc. to EN 60204-1
 - Safety category 3 to EN 954-1
- Simple and fast parameter setting via DIP switches
- Expanded parameter setting via fieldbus or diagnostics interface

MOVIFIT® function level

The function level indicates the functions included in the software for MOVIFIT® units for operation, system control and diagnostics.

Function level

Classic	Technology	System
Simple functions <ul style="list-style-type: none"> – Control as fieldbus gateway via MOVILINK® – Simple handling – can be compared with control of SEW field distributors (Z.3, Z.6, etc.) 	Open programming (MOVI-PLC®/ MOVITOOLS® MotionStudio) <ul style="list-style-type: none"> – Programming with standard IEC 61131 languages – Multi-stage library concept 	Application functions (MOVIVISION) <ul style="list-style-type: none"> – Central data storage for decentralized units – Central parameter and diagnostics system – Scalable drive-based conveyor functions

Flexible installation technology

The flexible installation technology of the MOVIFIT® system from SEW-EURODRIVE sets new standards, achieving greater efficiency in component and system planning. The system is rather simple: A modular concept that permits functional combinations of the electronics and connection units, selected to match the requirements of the application and the installation concept.

The electronics unit is housed in the EBOX and comes equipped with communication interfaces, digital inputs and outputs as well as an optional power component, such as a frequency inverter or electronic soft starter. Its counterpart, the ABOX, represents the passive unit with

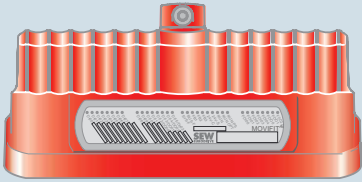
connection technology. The simple and uniform closing mechanism of ABOX and EBOX makes for a variety of possible combinations as well as quick and easy installation. This means you can design the MOVIFIT® system to deliver the functionality best suited for a particular application.

Overview of benefits:

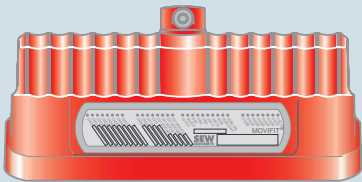
- Aluminum die cast housing:
 - High degree of stability
 - IP65 design for industrial applications
 - Hygienic IP69K design with increased ingress protection and surface coating for the food industry
- Separation of connection unit (ABOX) and electronics (EBOX) through dual-chamber design
- Fast replacement of electronic components (EBOX) without wiring
- Reduced installation times through innovative drive/motor pre-commissioning
- Variable connection options using a modular installation concept
- Industry-oriented, sophisticated connection technology
- Designs for strain reliefs and / or industry-standard connectors

Active electronics

EBOX: MOVIFIT®-MC

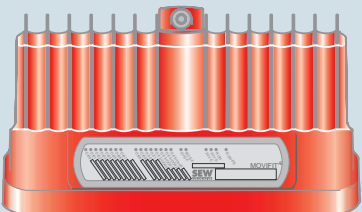
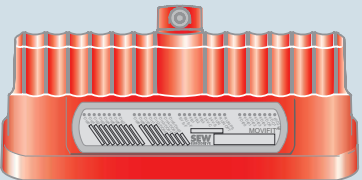


EBOX: MOVIFIT®-SC



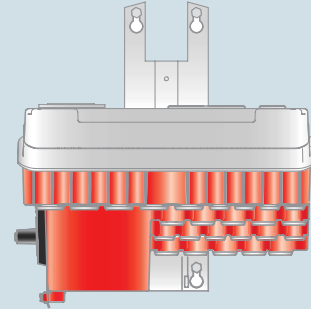
EBOX: MOVIFIT®-FC

Size 1/Size 2

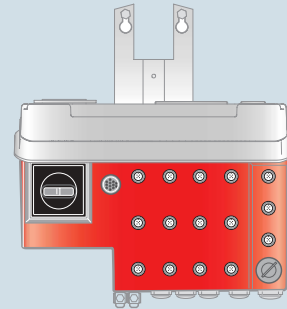


Passive connection unit

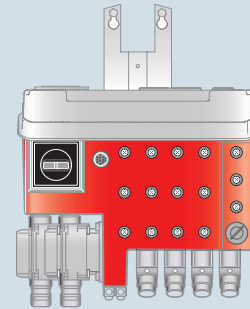
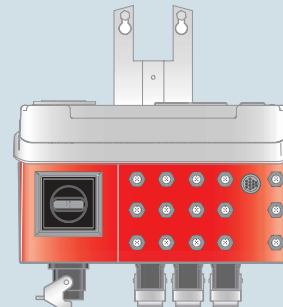
ABOX: Standard design with cable glands



ABOX: with M12 connectors and cable glands



ABOX: with Phoenix connector and Duplicon power distribution

ABOX: with Harting connector HAN-Compact®/
HAN-Modular®

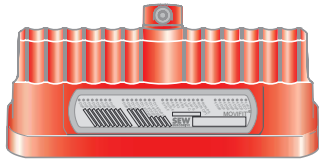
Electronics unit: EBOX

EBOX: Uniform mounting position, interfaces and closing mechanism regardless of integrated functions

EBOX

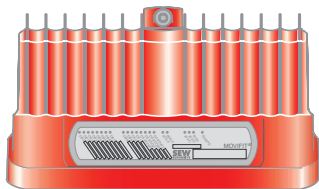
- Closed electronics unit with communication interface, I/Os and optional power section (frequency inverter or electronic motor control switch)
- Optional drive control
- DIP switch for easy configuration of power components
- Diagnostic LEDs for
 - I/Os (can be labeled)
 - communication
 - unit status

Size 1



- For MOVIFIT® MC, SC and FC
- Soft starter and inverter power ratings of 0.5 to 2 HP

Size 2

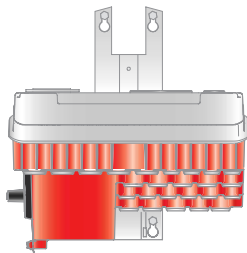


- For MOVIFIT® FC
- Inverter power ratings of 3 and 5 HP

Connection unit: ABOX

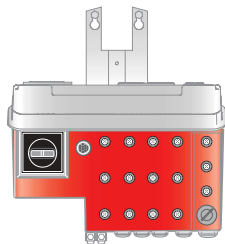
ABOX: Passive connection and mounting technology with uniform interfaces

ABOX: Standard design



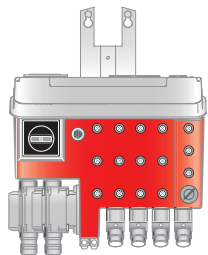
- Tapped holes for strain reliefs
- Terminal strip for I/O and bus
- Terminal strip for motor cables
- Terminal strip for power

ABOX: with M12 connectors



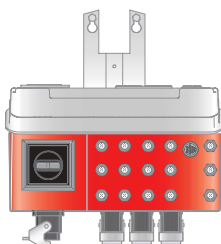
- Combination of tapped holes and M12 connectors
- M12 connectors for I/O and bus
- Terminal strip and tapped holes for motor connection and power

ABOX: with Phoenix connector and Duplicon power distribution



- M12 connectors for I/O and bus
- VARICON for motor connections
- Integrated DUPLICON for energy distribution

ABOX: with Harting connector HAN-Compact® / HAN-Modular®



- M12 connectors for I/O and bus
- HAN-Compact® / HAN-Modular® for motor connections and power
- External T-distributor available from Harting for power

Industry-specific solutions “made by SEW-EURODRIVE”

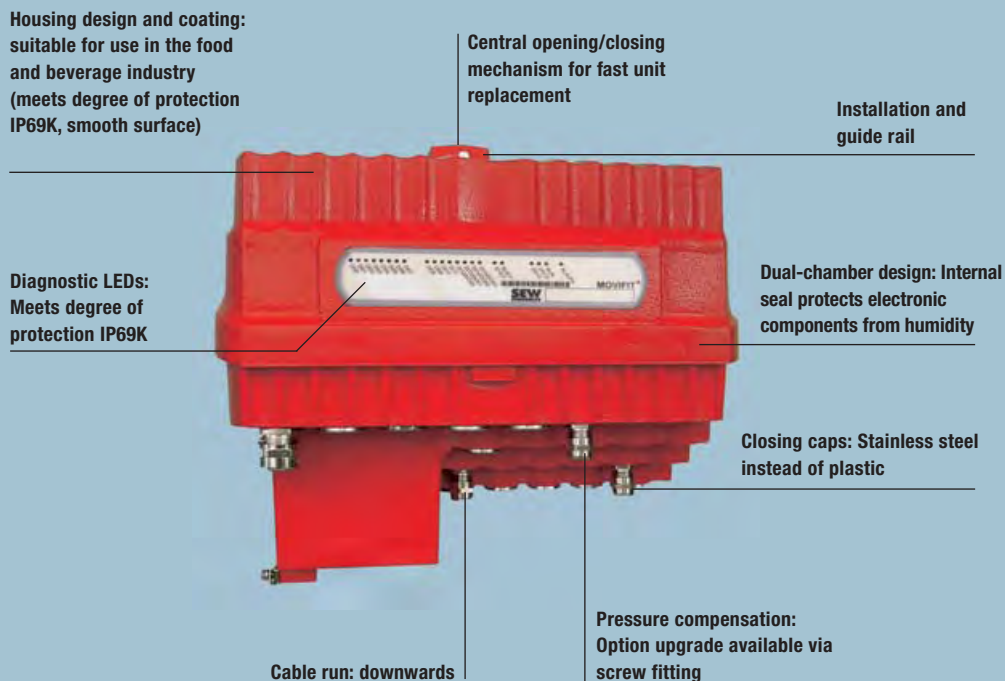
Drive engineering solutions from SEW-EURODRIVE not only meet the operating requirements in the standard hygienic range but can also be used if there is a need for resistance to aggressive cleaning agents and disinfectants.

The new MOVIFIT® series from SEW-EURODRIVE not only represents a new electronic component that is compact and modular but one that meets the demanding hygienic cleaning standards of the

food and beverage industry: Drive electronics for decentralized installation concepts in hygienic design.

Overview of benefits:

- MOVIFIT® combines the familiar advantages of decentralized installation technology, such as short wiring distances and modular machine design, with the food and beverage industry’s more exacting requirements in terms of liquid-tightness and cleaning.
- Housing design and diagnostic LED meet the requirements for degree of protection IP69K
- The coating of the MOVIFIT® housing makes the unit suitable for operation in the food industry; the coating drains and dries quickly without residue
- Separation of electronics and connection technology provides effective protection against humidity
- Closing caps: Stainless steel instead of plastic
- Pressure compensation: Option upgrade available via screw fitting
- Cable run: downwards (meeting industry guidelines)





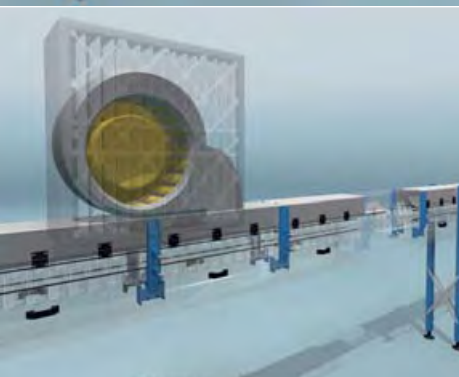
Decentralized installation concepts in hygienic design for the food and beverage industry



SEW-EURODRIVE offers system solutions for entire production plants in the food and beverage industry through the combination of gearmotors in ASEPATIC® design and decentralized MOVIFIT® drive electronics in hygienic design.

degree of protection IP69K and are protected by a special surface coating. The new contours of the housing make sure that water and cleaning agents do not adhere to the unit or leave any traces. The internal dual-chamber design protects the power electronics against humidity. This design approach assures quick replacement of electronics without wiring work for increased system up-time.

MOVIFIT® units have been developed for installation close to the motor. They meet the requirements for



Industry-specific solutions from SEW-EURODRIVE – overview of benefits:

- Gearmotors and drive electronics are perfectly matched
- Startup effort is reduced with preconfigured and optimized drive packages
- Simplified order processing
- Worldwide service: Complete Drive Management from SEW-EURODRIVE, with a 24-hour hotline

