SERVO GRIPPERS

GRIPPING SYSTEMS WITH PARAMETERIZED CONTROL

2022

Collaborative design grippers for high precision applications.

SERVO GRIPPERS
MPLF Series with external drive

The MPLF grippers design allows the control of the gripping system by using a standard external drive.
The user can now parametrize stroke, speed and force value and implementing any other customized control algorithm with direct access to motor phases and to the incremental encoder feedback signals direct access to motor phases and to the incremental encoder feedback signals.
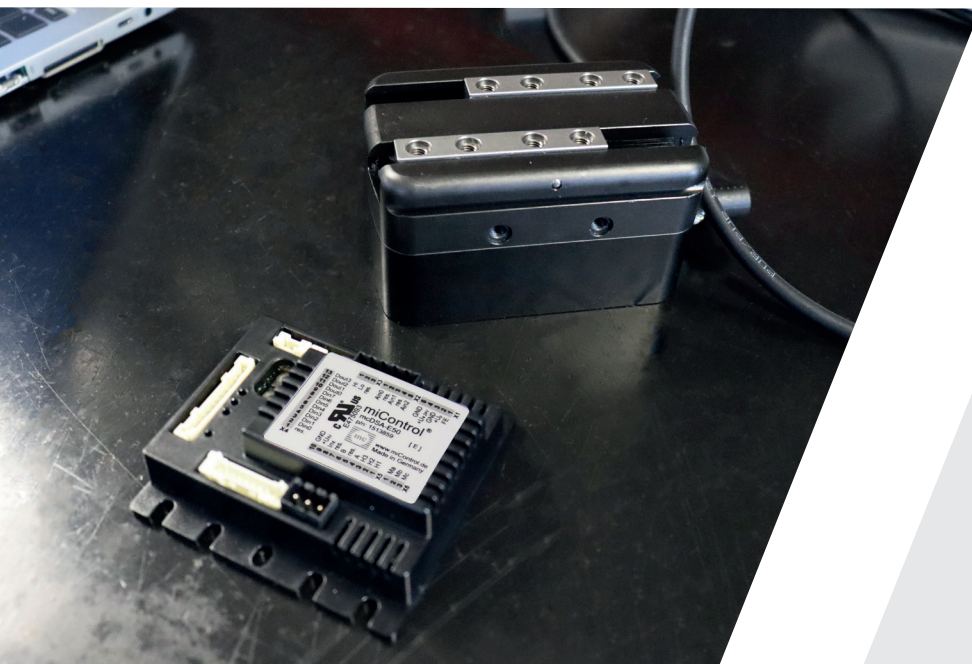
> Embedded torque brushless motors with 24Vdc nominal voltage.

> Can be controlled by a generic drive compatible with Feedback signals.

> The arbitrary choice of the drive allows interfacing to any Fieldbus network.

> Direct control of the motor and embedded ABZ encoder driver.

> The gripping can be done in any position that can be reached with the stroke of the jaws.

> The elastic element allows secure grip of the piece 'Soft Touch'

Functioning

The gripper is equipped with an M12-12 pole male connector for the power supply and the connection of the feedback signals (HALL sensors and incremental encoder) with the external electronics.

MPLF with M12 12 poles connector   **Servo Drive 24 Vdc**   **Fieldbus Connection**
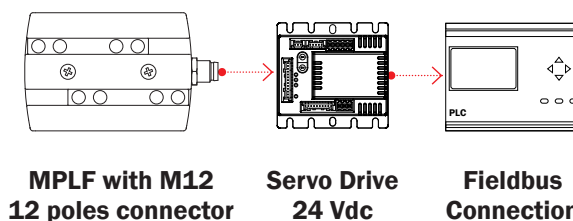
	MPLF1630	MPLF2550	MPLF3270
Stroke [mm] Corsa [mm]	30mm (2 x 15)	50mm (2 x 25)	70mm (2 x 35)
Gripping Force [N] Forza di presa [N]	45 (100 Max.)	100 (250 Max.)	160 (470 Max.)
Dimensions [mm] (without connector) Dimensioni [mm] (senza connettore)	46 x 46 x 52	53 x 57 x 74	62 x 62 x 112

Evaluation Kits

The choice of the drive is at the user's discretion. Gimatic offers two Evaluation Kits for the MPLF grippers. They include compatible drives, wiring and operating instructions.

MPLF-KIT-01: Based on Maxon Epos4 drives. It can be configured through a Windows application and it is suitable for applications that require a pure CanOpen slave node.

MPLF-KIT-11: Based on miControl mcDSA-E50 drive. It can be configured via a Windows application and it is suitable both for applications based on a Fielbus slave and for Stand-Alone applications (interfacing via I / O and / or programming with Python language).

MPCF Series with integrated drive

The MPCF collaborative gripper design with integrated drive allows a quick installation on the collaborative robot. The user can now implement stroke, speed and force value. Communication via CANbus or RS485 Half Duplex.

> Integrated brushless motors with 24Vdc rated voltage.

> Fieldbus standard (CAN/RS485)

> Absolute encoder.

> The gripping can be done in any position that can be reached with the stroke of the jaws.

> The elastic element allows secure grip of the piece 'Soft Touch'.

> Smart interface for Windows PC.

Modes of functioning

Gimatic has developed a high-level software interface to simplify the use of the device. The interface consists in a Windows application and a firmware (Middleware) based on predefined macros that can be easily recalled from an external Master. The gripper can be used in two ways:

- With Gimatic Middleware: to test, configure and use the gripper in a simplified way. Possibility of using the Smart interface for Windows PC to configure and store movement recipes.
- Without Gimatic Middleware: The gripper is used in realtime as a generic device adhering to the CANopen DS-402 standard for high performance applications.
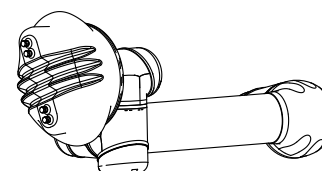

MPCF with M12 8 poles connector

Without Middleware

With Middleware
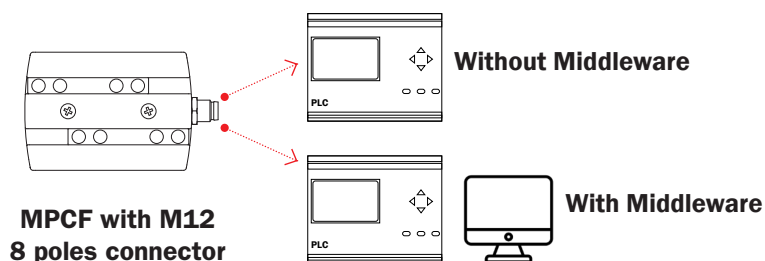
	MPCF3270
Stroke [mm] Corsa [mm]	70mm (2 x 35)
Gripping Force [N] Forza di presa [N]	160 (470 Max.)
Dimensions [mm] (without connector) Dimensioni [mm] (senza connettore)	62 x 62 x 112

MPLF & MPCF compatible accessories

Gimatic servo controlled grippers can be equipped with the GMP cover. The cover allows you to use the forceps even in sterile and extremely clean environments such as those of the pharmaceutical industry.

Scan and discover the GMP cover!