

LEONI HPF-Cables



The Quality Connection

LEONI

Hybrid Flat Cables Designed for High Flex Life in the Most Demanding Applications



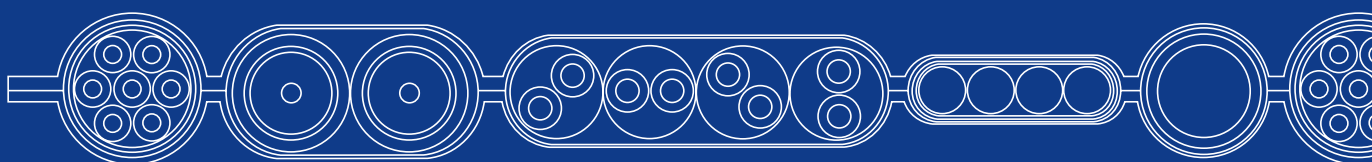
For applications requiring tens of millions of flex cycles at tight bend radii, LEONI has developed the HPF (high-performance-flex) flat cable. Using special fluoropolymer materials, LEONI HPF cables can be designed for specific applications to exceed 100 million cycles.

Thin-walled fluoropolymer insulation produces slender, very densely packed flat cables for optimal space utilization. The extremely low cable profile permits a significantly tighter bend radius than with comparable round cables. Low friction, self-lubricating tapes in LEONI HPF cables permit a design with improved flexibility. This also minimizes the power needed for positioning moving parts and improves positioning accuracy, a big plus in designing high-speed actuators. With special design criteria, HPF cables can be optimized to largely eliminate the need for power and trailing cables. Horizontal or vertical installation is possible. The small size and weight also reduce unwanted vibrations and increase mobility compared with trailing cables.

LEONI HPF cables provide a wide variety of useful options. A broad range of individual conductors can be mixed and matched. Hybrid designs can include many different components: single wires, twisted pairs, coaxial cables, data cables such as ethernet and FireWire, optical fibers, and even hoses or larger diameter copper wires for power supply.

The long service life of LEONI HPF cables minimizes operating costs for the user.

Working in close cooperation with the respective user, LEONI's design engineers put their entire expertise into developing the optimal cable solution in terms of both technology and cost effectiveness.





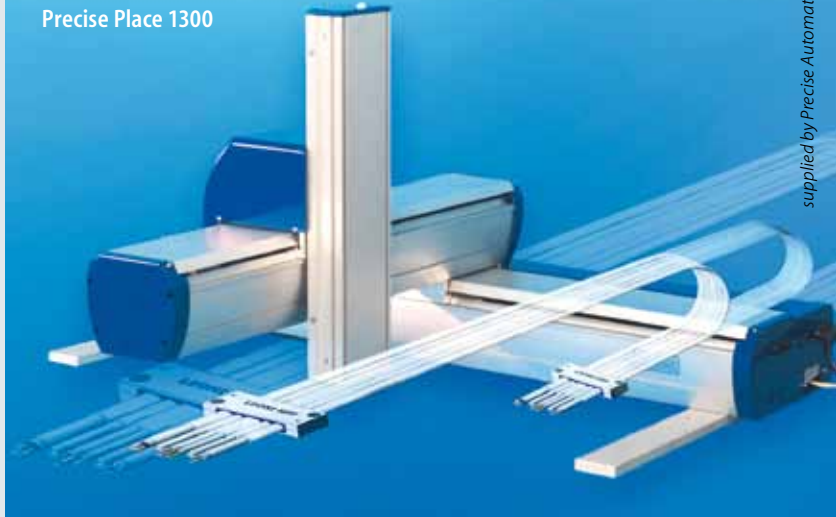
LEONI HPF cables at a glance

- **Optimized design and the use of high tech materials improve performance.** Allowing specific applications to exceed 100 million cycles.
- **High quality fluoropolymer insulations** minimize adhesion and internal friction for longer service life
- **Custom designed for the specific application:** all the required conductors can be integrated into a single flat cable according to the customer's needs.
- **Hybrid cables** can include symmetrical and coaxial signal wires, power and control wires, optical fibers, hoses, and other components
- **Low weight** permits high positioning speeds and accelerations of several times the force of gravity
- **Complete cable assemblies can be supplied,** including mechanical and electronic components
- **Customized special solutions** available for prototype orders starting at 100 meters
- **Initial orders supplied within three to six weeks**

**Cross section of a typical
LEONI HPF hybrid cable**



Precise Place 1300



supplied by Precise Automation

Maximum flexibility, optimized low-friction motion, and practically no particulate wear make these cables well suited for use in clean rooms, medical appliances, and vacuum environments: everywhere where absolute sterility and high mobility are required.

Typical applications for LEONI HPF cables include e.g.:

- component insertion machines
- material handling robots
- chip handlers
- linear drives
- packaging machines

Tailor-made LEONI HPF cables designed to customer specifications are available for minimum orders starting at 100 m. Delivery time for initial orders is between three and six weeks.

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