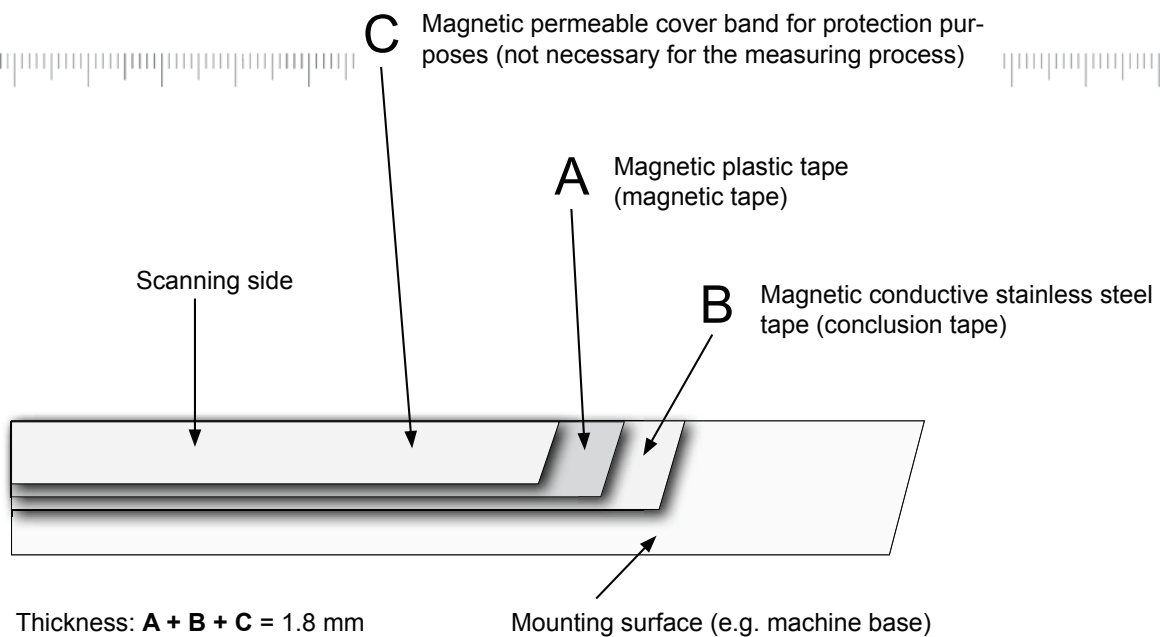


Accessories

Magnetic Tapes

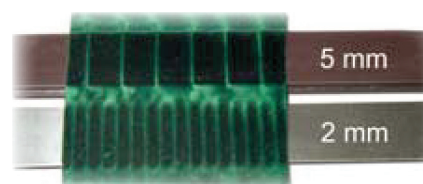


The Magnetic tape consists of 3 components:

- A** The magnetized, highly flexible plastic tape, connected on the lower side with:
- B** Conclusion tape, magnetic conductive and flexible stainless steel tape. It protects the plastic tape from mechanical damages and is a magnetic short circuit at the same time. This provides a significant increase of the functional security under extreme magnetic influences. The parts A and B are already bonded (factory-made).
- C** To keep the flexibility for transport and installation a magnetic permeable steel tape provided with adhesive tape is delivered separately. It serves for mechanical protection of the magnetic plastic tape (A).

Pole searcher film

For the determination of the pole pitch and the number of tracks of already installed tapes, a special pole searcher film (about 3 cm x 3 cm) is available. This pole searcher film makes the magnetization of an ELGO magnetic tape visible. This is especially helpful in order to detect the pole pitch or the number of absolute tracks for already installed or unknown tapes which have to be replaced.



Incremental tapes with different pole pitch

The ELGO magnetic tapes contain the necessary digital information for a linear length measuring via ELGO measuring systems, either as incremental coding or as absolute coding.

As standard (tape construction R), the magnetic tape is arranged along the distance which has to be measured and is there bonded on the mounting surface. Due to its own magnetic pull it can also be fixed without any tools on ferromagnetic areas such as steel beams, machine bases etc. (variant tape construction A).

For incremental or absolute measuring systems, different types of magnetic tapes are necessary. In addition, the magnetic tapes differ regarding their pole pitch, which determine –together with the magnetic sensor- the accuracy and the resolution of the measuring system.

For any industrial application we deliver customized magnetic tapes on request.



ELGO magnetic tape end caps are available for all magnetic tapes. They serve for an additional fixation in the radial and the linear area as well as for protection of the endings of the magnetic tape.

Technical Data Magnetic Tapes

Operation temperature	- 20°... + 85 °C (depending on the type)
Humidity	max. 80 % (non-condensing)
Linear expansion	$\Delta L = L \times \alpha \times \Delta \vartheta$
Linear expansion coefficient	$\alpha = 16 \times 10^{-6} 1/K$
Curvature radius	minimal 150 mm
Protection class	IP67
Available widths	10 mm
	20 mm
	8 mm (on request)
	5 mm (on request)
	2 mm (on request)
Thickness	1.8 mm +/- 0.1 mm (tape construction R)
	1.5 mm +/- 0.1 mm (tape construction A)
Max. available length	Incremental: standard roll 32 m (up to 70 m on request)
	Absolute: up to 600 m rolls (longer on request)
Pole pitch	depending on the measuring system: 2 mm pole pitch 2.5 mm pole pitch 4 mm pole pitch 5 mm pole pitch 8 mm pole pitch
Amount of traces (absolute)	1-3 traces depending on the measuring system
Influence of external magnets	External magnetic fields must not exceed 64 mT (640 Oe; 52kA/m) on the surface of the magnetic tape. This can damage or destroy the magnetic tape coding. Magnetic fields > 1 mT at the measuring system affect the system accuracy

Guide Rail

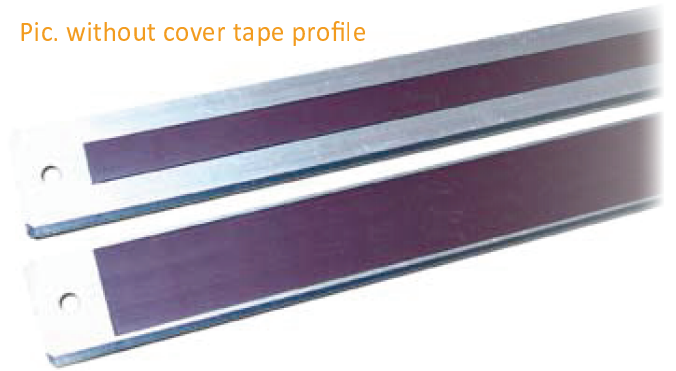
FS - Guide rail

Guide rail for 10 and 20 mm tape. This special 25 mm wide and 6 mm high aluminium rail is provided with a groove on both sides (1 x 10 mm and 1 x 20 mm) into which the corresponding magnetic tape can be bonded. The rails are available in maximum lengths up to 2 meters and are already prepared with 4.5 mm mounting holes. Type designation: FS-XXXX (Length in XXXX millimeters!)

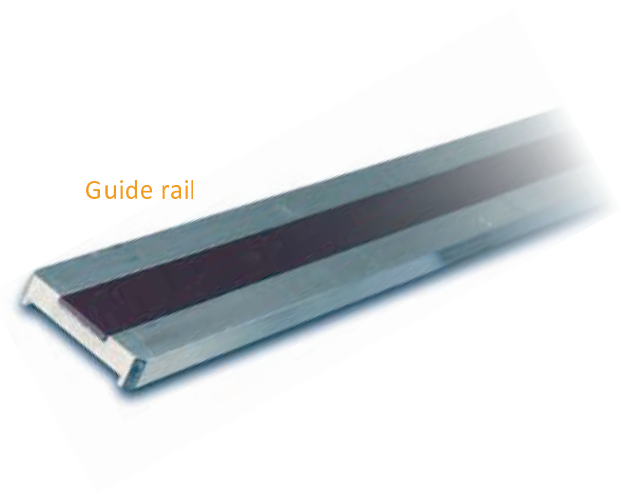
AP - Cover tape profile (without picture)

This 2 mm high and 20 mm wide aluminium cover tape profile can be used as an alternative for the cover band. The magnetic tape is bonded without the steel cover band into the groove and is optimally protected. The profile is available in lengths up to 2 meters. Type designation: AP.X.X (Length in X.X Meters)

Pic. without cover tape profile



Guide rail



Guide Carriage

An ideal addition to the FS guide rail:

The guide carriage consists of a self-lubricating plastic material and is suitable for the installation of the following incremental measuring systems:

LMIX1, EMIX 1, EMSC1, IZ15, IZ16 (FW2060)

LMIX2, EMIX2, LMIX22, EMIX23 (FW2070)

EMAX (FW2080)

Outer dimensions:

FW2060: L = 80 x W = 48 x H = 24 mm

FW2070: L = 80 x W = 48 x H = 33 mm

FW2080: L = 100 x W = 48 x H = 34 mm

Order code: FW-2060, FW-2070, FW-2080

Updates and further details on www.elgo.de

