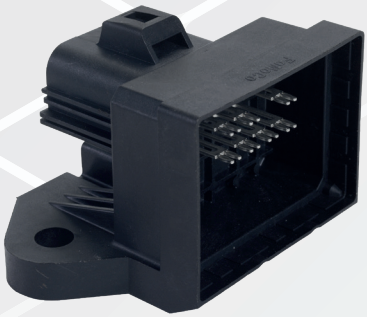
EloPin® PRESS-FIT

by LEMAN industrie

PRESS-FIT SOLUTION

The press-fit connections can be utilized in a wide range of applications, primarily serving as both **electrical and mechanical links** between printed circuit boards and conductive pathways. They are ideal for use in both **control and load connections**.

BENEFITS OF THE EloPin® PRESS-FIT



- Low press-in force & high push-out force
- No tin chips
- High mechanical stability
- Gas-tight, reliable connection
- Low mechanical stress on the PCB during press-in process
- No «nozzle effect» (deformation of the PCB layers from press-in)
- Temperature range from -40°C to 150°C (rem. 1)
- Low electric resistance

To ensure **optimal connectivity**, the diagonal across the press-fit zone of the pin must be larger than the diameter of the plated drill hole in the printed circuit board.

The high pressures generated during insertion create a **cold weld** between the two materials. The resulting connection is **gas-tight,** electrically conductive, and capable of withstanding high mechanical loads.

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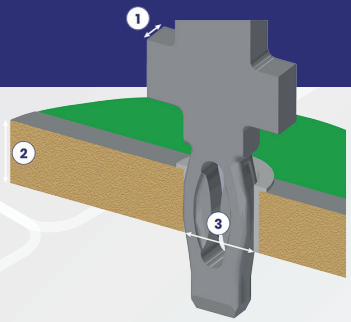
Solder-free connection technology as EloPin® is widely used in demanding **automotive applications**, where its robustness against vibrations, mechanical and thermal shocks, and high-temperature environments is crucial.

The pressfit connection provides a **reliable mechanical and electrical bond** between the printed circuit board and the plug connectors.



1. Material Thickness
2. PCB Thickness
3. PTH Diameter

Scan me for technical data

ABOUT OUR PARTNER

TBS Sorig

LEMAN industrie works in partnership with TBS Sorig. This company, license owner of EloPin®, is a product developer based in Germany with over 20 years of experience in advanced connector technologies.

Leader in e-connectivity solutions

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DATA SHEET

EloPin® SIZES / VARIANTS

Name	Material Thickness	PTH Diameter	PCB Thickness
EloPin 04-06	0,4 mm	0,6 mm	1,0 mm
EloPin 06-10	0,6 mm	1,0 mm	1,44 (1,0) mm
EloPin 08-145	0,8 mm	1,45 mm	1,44 mm
EloPin 08-16	0,8 mm	1,6 mm	1,44 mm
EloPin 12-20	1,2 mm	2,0 mm	1,44 mm

TECHNICAL DATA

EloPin	04-06	06-10	08-145	08-1 6	12-20
Press-in Force, Max	100 N	100 N	160 N	160 N	200 N
Press-in Force, Typical	20-60 N	65 N	115 N	85 N	160 N
Push-out Force, Min	20 N	30 N	40 N	50 N	50 N
Push-out Force, Typical	35-70 N	60 N	135 N	105 N	110 N
Volume Resistance, Max	1 mOhm	1 mOhm	1 mOhm	1 mOhm	1 mOhm
Volume Resistance, Typical	0.05 mOhm	0.01 mOhm	0.01 mOhm	0.01 mOhm	0.01 mOhm
Current Capacity	Not tested	Approx. 8A	Approx. 25A	Approx. 25A	Approx. 45A

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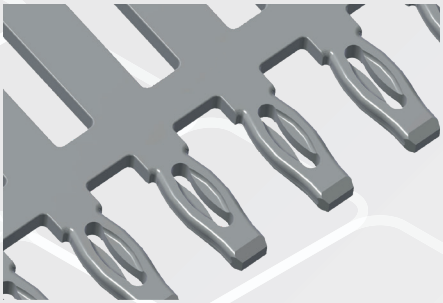

BASE MATERIALS

Application	Mobility	Mobility	Mobility
Base Material	CuSn6	CuNi3SiMg	CuCrAgFeTiSi
Electrical Conductivity MS/m	9	25	46
Thermal Con. W/(m.k)	75	190	320
Surface Finish	Sn100 on Ni	Sn100 on Ni	Sn100 on Ni
Max. Usage Temperature	95 °C	150 °C	150 °C
EloPin 04-06	✓	✓	
EloPin 06-10	✓	✓	
EloPin 08-145		✓	✓
EloPin 08-16	✓	✓	
EloPin 12-20		✓	✓

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