

PRESS RELEASE

DYNAFORCE – ‘touch’ operation on metal fronts

Merenschwand, Switzerland, November 2018

Stand 221, Hall A2, www.algragroup.ch

The Algra Group has made the identification of contact on metal easier than ever before with DYNAFORCE input technology. The strain gauge technology makes it possible to operate input fronts made of rigid metal by gentle key pressure. Touching the keys generates a mechanical deformation for sheet thicknesses of 0.3 to 1.2 mm that are evaluated by the system as a change in resistance. DYNAFORCE prevents keys from popping out and no movable parts are required. This makes the keypad water-resistant, robust and durable.

‘Metal touch with DYNAFORCE is incredibly sensitive, yet unsusceptible to interference’, said Dieter Matter, CEO, Algra Group. Each key features a strain gauge on a centralised PCB. The network of strain gauges detects the minutest mechanical deformations and filters out disruptive signals thanks to intelligent evaluation. Typical areas of application include products such as household goods, industry and outdoor devices with special aesthetic design and products that must be highly robust and water-proof.

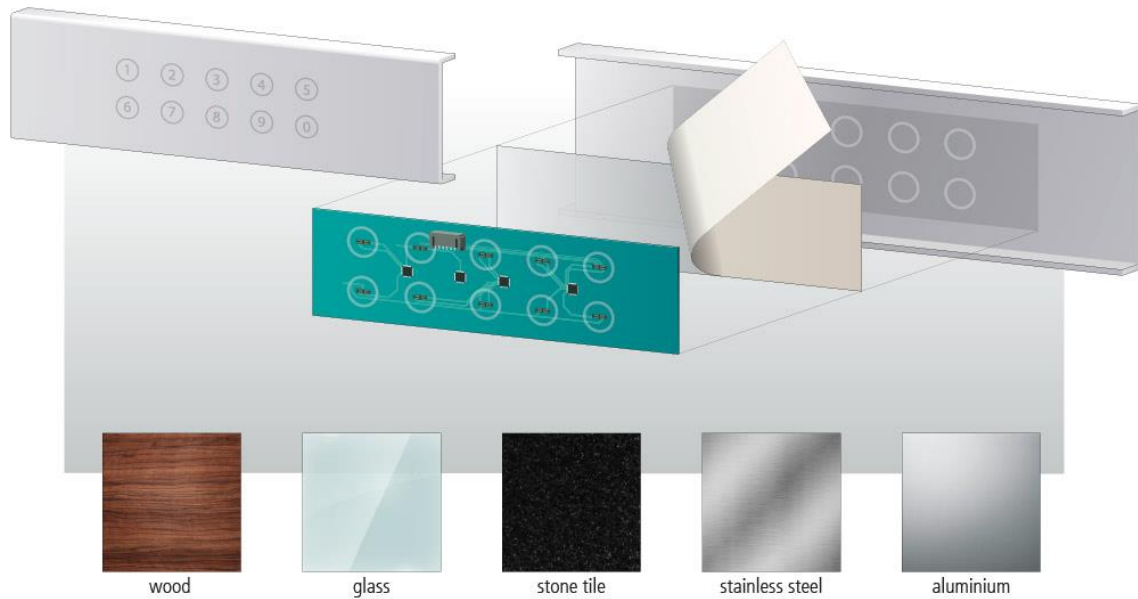
Advantages of the DYNAFORCE input technology:

- **High level of design exclusivity:** The control panel front is made using an integrated metal touch layer.
- **Glove-sensitive operation:** Operation is just as sensitive with gloves on as without.
- **Highest water protection rating:** Can be used to full capacity in wet conditions.
- **Very high vandalism protection:** Use of metal control panel fronts protects against vandalism.
- **Dynamic key sensitivity:** The key sensitivity can be set from 100 g.
- **High temperature operational capability:** Temperature range of -40°C to $+85^{\circ}\text{C}$
- **Long service life:** no moving parts and no wear and tear
- **Easy assembly:** Assembly using self-adhesive tape (peel-and-stick).
- **Each key layout possible:** The key arrangement is, taking into account the minimum distance, freely selectable.

Materials	Material thickness at maximum sensitivity
Plastic:	1.0–2.0 mm
Aluminium:	0.3–1.2 mm
Stainless steel:	0.3–1.0 mm
Glass:	0.5–1.0 mm

Technical data	
Operating temperature / storage temperature:	-40°C to $+85^{\circ}\text{C}$ / -40°C to $+85^{\circ}\text{C}$
Supply voltage:	3.3 V (typically)
Power consumption:	60 μA /button
IP protection class:	all IP classes can be implemented
Key sensitivity:	100 g to 1000 g adjustable
Life cycles:	> 10 million
Minimum key spacing (centre to centre):	15–20 mm
Sensor size:	2 x 7 mm

Images:



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Algra Group comprises Algra tec AG and gravuretec sa, and employs about 100 workers at locations in Erlach and Merenschwand. It is an internationally leading manufacturer of high-quality input systems, signs, fronts and casings. These segments of our range are also supplemented by trade products.

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