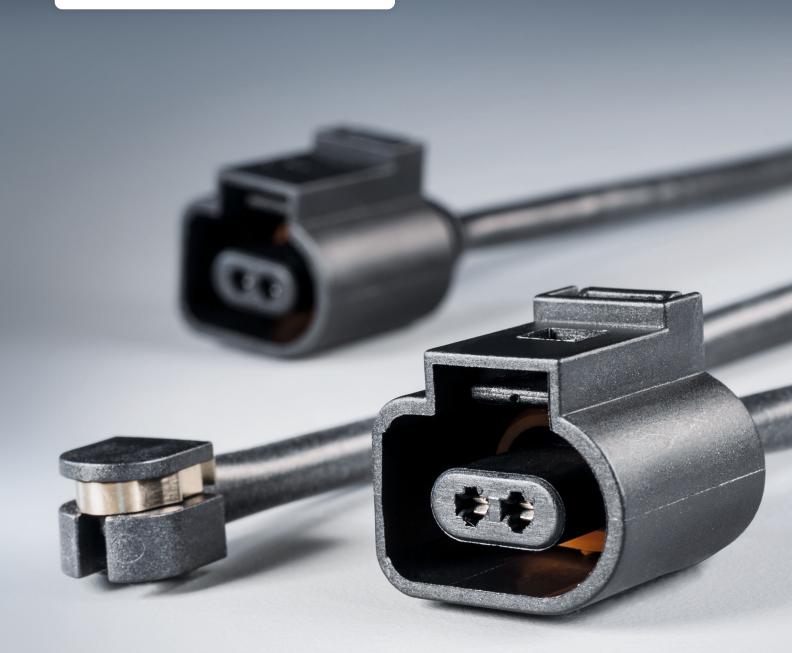


## **ACCESSORIES**



# ACCESSORIES FROM HELLA PAGID SAFETY STARTS WITH THE SMALLEST PART

#### Good to know:

HELLA PAGID offers more than 220 warning contacts in addition to the brake pads that already ship with the devices. If a factory brake pad is prepared for a warning contact but does not ship with it, we allow customers to retrofit one so that they do not have to sacrifice safety. The electronic wear indicators from HELLA PAGID are highly resistant to heat and have very good thermal insulation.

#### Good to have:

Useful accessories for all brake system components – including a complete set for all common fixing bolts in a compact and practical metal box.

# DETECTING WEAR IN REAL TIME -NOW THAT'S COOL!

## The condition of the brake system has a major effect on road safety and is mainly checked by the wear indicator, whose function and effect should therefore never be underestimated.

Wear indicators for brake pads make an important contribution to your safety by ensuring that your vehicle always has functionally reliable brakes. You should therefore never make any compromises and always use name-brand accessories from HELLA PAGID, which are manufactured according to OE specifications and are comprised exclusively of high-quality materials to ensure the highest possible level of safety, durability and comfort.

As the name already implies, wear indicators are a monitoring device that lets you know when the brake pads are worn to the point that they need to be replaced. There are two different types of wear indicator – mechanical and electronic:

 Mechanical wear indicators, which are fastened to the brake pad base plate, generate a loud, vibrating warning noise during braking as soon as the



friction material has reached the minimum thickness rating that is still safe to drive with.

 Electronic monitoring systems, on the other hand, are embedded in the friction material itself. When the critical minimum



thickness rating is reached, the cable is separated during braking, thus interrupting the electric circuit and creating a short circuit that triggers a warning bulb to illuminate in the instrument cluster.



# TPM0001 TPM0002 TPM0003 TPM0003 Note in andia TPM0005 TPM0005 TPM0005 TPM0005 TPM0005 TPM0006 TPM0005 TPM0016 TPM0007 TPM0006 TPM0017 TPM0008 TPM0017 TPM0012 TPM0009 TPM0017 TPM0017 TPM0009 TPM0017 TPM0012 TPM0009 TPM0016 TPM0017 TPM0009 TPM0017 TPM0017 TPM0009 TPM017 TPM0017 TPM017 TPM017 TPM0017 TPM017 TPM017 TPM017 TPM017 TPM017 TPM017 TPM017 TPM017 TPM017 TPM018 TPM017 TPM019

#### Twelve are better than one

Practical, robust and compact – just what you'd expect from HELLA PAGID: With this metal box, specialist workshops always have access to the right fixing bolt. The complete set includes a supply of 12 of the most common fixing bolt designs, each of which has a zinc flake coating. The water-tight thin layer of corrosion protection applied to each bolt improves durability and service life. Thanks to this box, replacing damaged retaining screws is quickly and easily accomplished -- without making any compromises when it comes to safety. Individual fixing screws can also be reordered at any time.

#### DID YOU KNOW ...

... that the first electronic warning contact was invented by the end of the 1970s?

# SMALL PARTS – LARGE EFFECT

Every new disk or drum brake is only as good as the accessories that come with it. This is why strict requirements apply here as well when it comes to maintenance and replacement.

HELLA PAGID offers over 550 accessory products, all of which meet the highest safety standards and are manufactured according to OEM requirements. Only accessories that were manufactured without any defects and that operate exactly as intended are what ensures that a brake system performs safely and reliably. These accessories, such as fixing bolts, clamps, clips, springs and pad plates, are designed specifically for their target applications:

- → Disk brake pads
- → Brake shoes
- → Parking brake shoes
- → Brake calipers

### New accessories are also urgently recommended when the following symptoms arise:

- → Fixing bolts indicate the wrong tightening torque and may have already come loose
- → Old and worn out pad plates and clamps are broken or are lost
- → Old springs no longer apply the rated clamping force, which can cause disturbing noises and clattering or rattling

#### Note:

When repairing the brakes of vehicles that are more than 48 months old, we also recommend that you have the retaining spring replaced.



Old coil springs



New coil springs



Top: New brake caliper spring Bottom: Brake caliper spring with considerably reduced clamping force after approximately 6 years of use, including extended periods of non-use.



#### HELLA Australia Pty. Ltd.

P.O. Box 89 Mentone, Victoria 3194 Australia Tel.: (03) 9581 9299 Fax: (03) 9581 1838 Techline: 1800 061 729 E-Mail: custservice@ha.hella.com Internet: www.hella.com.au

#### HELLA Asia Singapore Pte Ltd

Regional Headquarters Asia Pacific Independent Aftermarket 2 International Business Park #02-12 The Strategy Singapore 609930 Tel: +65 6854 7300 Fax: +65 6854 7302 E-mail: singapore@hella.com Internet: www.hellaasia.com

#### HELLA PAGID GmbH

Lüschershofstraße 80 45356 Essen, Germany www.hella-pagid.com service@hella-pagid.com

© HELLA PAGID GmbH J01002/05.21 Subject to technical and price modifications.