Traffic calming reduces accident rates

3M™ DFS 600 driver feedback sign as a psychological brake

- Gets your attention with its large area two-colour display
- Easy installation and simple setup by one person
- Portable thanks to its light construction and battery that last several days
More flexibility with power supply alternatives

Depending on the situation of the location, three versions are available for supplying the device with energy:

a  A **power supply unit** for direct connection to the electricity supply is ideal for permanent installation.

b  A **17 Ah battery** can be used for a portable application at various danger points or at locations with no way to connect to the mains. This is housed in a lockable battery box that is additionally installed.

c  At locations like street lights with a mains electricity supply which is sometimes interrupted, a **battery with a connected charging device** as a temporary store may be used.

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**3M** DFS 600 driver feedback sign

With the new series 3M is offering a high-quality two-colour LED display technology that informs the driver and other people in his vicinity about his current driving speed in a prominent manner and reminds him of the permitted maximum speed limit. Thanks to the precise speed measurement and its immediate display, it builds up pressure for a change in social behaviour.

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**Foot off the gas: Avoid accidents – Protect the environment**

At about 16% inappropriate speed is the commonest of all causes of avoidable accidents. Although the total number of accidents involving personal injury has been falling in recent years, the proportion of victims that were pedestrians or cyclists rose in 2006 to 23.5%.*

The consequences of speeding can be shown by a simple example. If a child suddenly runs into the road at a distance of 27 metres, a vehicle with a speed of 50 km/h will come to a halt just in front of him.

At a speed of 60 km/h, the vehicle hits this child at about 40 km/h despite full braking. This shows that every reduction in a vehicle’s speed, however small, makes a major contribution to safety.

After extensive field research, a thesis from the specialist road safety department of the Bergische Universität Wuppertal (Wuppertal University) has come to the conclusion that the use of a speed warning system has a demonstrable effect on driving speeds. The successful reduction of excess speed to or below the required limit was between 21.4% and 24.3% at various measurement points. This means that the average driving speed on these sections of road was greatly reduced.

*Statistisches Bundesamt (Federal Statistics Office), 2008

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How it works

The speed of a vehicle is measured by a built-in microwave radar and shown as a large display so that it can be read from a distance of over 100 metres. A green display informs the driver of the vehicle about observing the specified maximum speed limit and a red number draws his attention to the fact that he is speeding. In addition, flashing figures can enhance the warning effect.

To maximise legibility and to extend useful life, the brightness of the LEDs is adjusted to the ambient brightness by a sensor. Accessory products offered separately permit adaptation of the system to its planned use. This optimises the benefit and reduces costs.

Simple installation and configuration

Thanks to its light but robust construction, the 3M DFS 600 driver feedback sign offers a high level of protection from damage and weathering. With a weight of less than 5 kg, this device is easily transported and installed by one person.

Fixing equipment for portable or even stationary use on posts with a diameter of 60 mm are supplied with the device.

The configuration of the operating parameters is done from outside without opening the device, with a magnetic key. Besides setting the operating parameters such as colour and flashing, you can also set the device to display the maximum value, for instance in order to prevent abuses such as racing.

A signboard, which is also available, can bear individually chosen, permanent text e.g. “Your Speed” or “Attention School” in order to increase the social pressure on the driver to adjust his speed. This signboard, just like the frame of the display system, is equipped with a high-quality prismatic reflective film so as to easily draw attention, even at night.
Save lives, reduce costs

Restricting speed on particular sections of road is done for a reason: it is intended to guarantee the safety of all road users that are on the move here. Anyone who exceeds the specified speed limit often does so without realising it. The 3M DFS 600 driver feedback sign is therefore an innovative opportunity for quickly and clearly signalling to all motorised traffic whether or not they are driving within the speed limit. So for instance the new system can help to save lives in your town. And it can do this at considerably lower cost than would be incurred with construction measures.

A current study by the LRSU (London Road Safety Unit) has established in general that a speed warning system achieves its greatest effect on roads with a speed limit of 30 mph (~ 50 km/h) up to 200 metres after the device. So a reduction in the number of accidents by 5.6% is expected in the first two weeks. Rotation of several display devices at many technically prepared locations is seen as an especially efficient and effective method of improving road safety.

Many applications

3M driver feedback signs are used on all sections of road where observance of the speed limit is indispensable to improving road safety and the maintenance of the quality of life.

**Speed reduction**
- in residential areas
- on entry to towns and villages
- at roadworks
- in areas with speed limits

**Accident black spots**
- on dangerous bends
- before bridges and tunnels

**Areas with high activity**
- in the vicinity of hospitals and old people’s homes
- in the vicinity of kindergartens, schools and universities
- by and on business premises
- at bus stops

**Places with environmental pollution**
- as a noise protection measure
- to reduce hazardous substance emissions

The most important technical data

- Dimensions and weight of display system: 480 x 610 x 58 mm, 4 kg
- Operating voltage: 11.3 V – 14.7 V
- Power supply unit: input 100 V - 240 V AC (protection class 1), output 12 V - 100 W
- Battery life: up to 240 hours with charged battery and light traffic
- Radar frequency: 24.15 – 24.25 GHz
- Radar measurement range: 3 - 199 km/h
- CE certification: granted