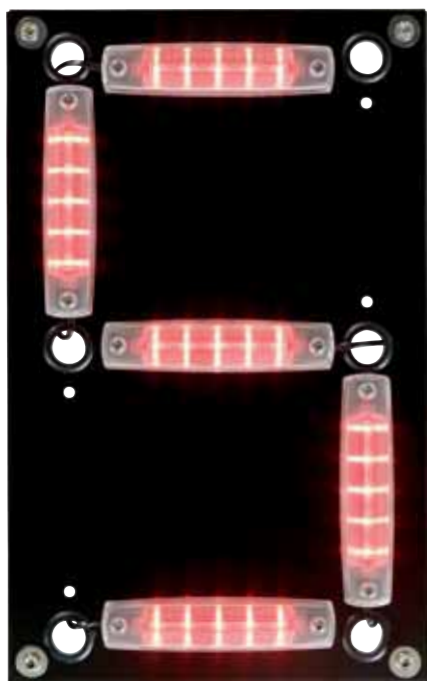


NumiLED® Number Boards



NumiLED® is a modular system of robust illuminated identification panels developed for use in work environments where situational awareness forms the basis of safe operation, and where visibility is often very poor. Typical applications for the NumiLED® system are: identification numbers for mining haul trucks and shovels, process tanks and conveyor transfer stations.

The very high levels of dirt in mining and many industrial applications render retro-reflective and normal high contrast signage ineffective within a short period. The NumiLED® system overcomes these challenges through the combination of advanced optical engineering and the best high intensity LED technology available. NumiLED® panels provide clear, legible identification for instances up to one kilometre.

Each NumiLED® unit consists of a robust housing equipped with an array of high intensity LED modules arranged to display an alphanumeric character of choice. Hella engineered every aspect of the NumiLED® system to withstand the corrosion, vibration and generally hostile operational environment for extended periods. Designed to indefinitely retain its full integrity after maintenance, repairs can be made quickly without any requirement for specialised tools or skills.

The active LED modules are custom versions of proven 'fit & forget' Hella products adapted to suit this application.

NumiLED® Features

- Improves safety & visibility
- Low maintenance
- Low energy consumption
- Long service life
- Expandable fleet numbers
- Easy to assemble
- Excellent performance in hot, cold and wet environments
- Fully sealed against dust and moisture to IP6K7
- Durable PMMA lens
- Robust ABS and PC housing

The LED modules are fully sealed and pre-wired with double insulated cabling and keyed DT connectors to eliminate malfunctions due to water ingress, corrosion or user errors. Cognisant of the operating environment, the NumiLED® system is designed to allow any one LED module to be damaged without impairing the function of the whole unit. Individual LED modules can be added, removed and replaced at any time, allowing users to re-use or repair, or recycle NumiLED® units into new applications.

To ensure long term reliability and maintainability, the power distribution and control of the LED modules is implemented as a weatherproof distribution module with keyed DT sockets affixed to the rear of the NumiLED® housing. The power module is based on an ultra heavy-duty military grade dual layer gold plated PCB incorporating fault finding diagnostics as well as the programming control system in the NumiLED® PRO versions.

NumiLED® housings are precision fabricated from heavy gauge grade 304 stainless plates. A corrosion and UV resistant black semi gloss powder coat or natural finishes are standard options. The NumiLED® housing is supplied complete with power module, prepared fixing and mounting holes, with the larger cabling holes fitted with high quality rubber grommets to prevent cable chafing. In addition, each NumiLED® housing is equipped with four high quality vibration dampers to isolate the NumiLED® number board from the vibration generated by the machine it is mounted to.

NumiLED® PRO number boards are even more versatile featuring the advanced programmable power board with internal memory function.

While the standard NumiLED® Kit consists of empty housings and packs of LED modules that the end user assembles to create the desired digits, the programmable NumiLED® PRO boards are supplied fully assembled with all seven LED modules. The required digit is selected by simply using the supplied dongle on the special integrated MagCode® programming port. The NumiLED® PRO board will cycle through all possible digits and stop when the socket is removed.

The internal memory function ensures that the selected digit is displayed every time power is supplied and will continue to do so even if a damaged LED module is replaced. The NumiLED® PRO board can be re-programmed at any time using the same process.

To prevent unauthorized tampering with the displayed digits, the front mounted programming port mechanically disconnects the electrical connection when the dongle is removed, which itself incorporates encrypted data that the power module must validate prior to responding to any programming inputs.

To suit different equipment types, mounting preferences and visibility distance requirements found on mines, Hella offers NumiLED® boards in two sizes. While the large (720mm tall) housing is supplied as single digits only for ease of handling, the smaller (396mm tall) housing is available in both single and triple digit versions.

The standard NumiLED® LED colour is red, but users can obtain different coloured LED modules for applications where different equipment types are identified through their colour as special orders.

NumiLED® PRO Features

- Improves safety & visibility
- Pre-assembled and fitted with all required LED modules
- Programmable power distribution board with internal memory function
- Integrated front mounted MagCode® programming port
- Supplied with special MagCode® programming dongle to change characters
- Reverse polarity and voltage spike protected
- Low maintenance
- Long service life
- Expandable fleet numbers
- State of the art design
- Low energy consumption (max. 20W per digit)
- Excellent performance in hot, cold and wet environments
- Fully sealed against dust and moisture to IP6K7
- Durable PMMA lens
- Robust ABS and PC housing

NumiLED® PRO Number Boards

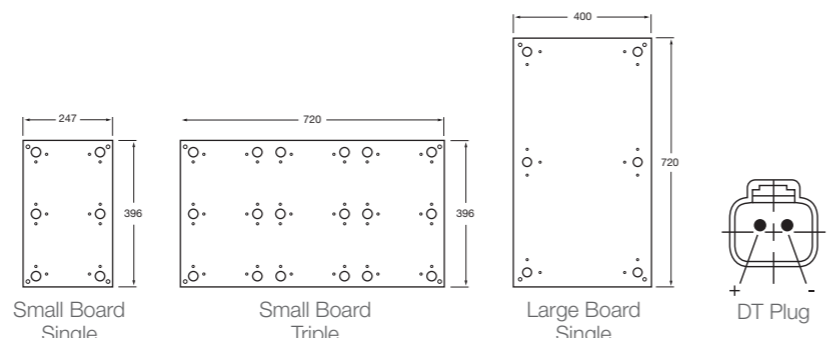


Description	Part No.
NumiLED® PRO Boards - Small (396mm)	
Single Number Board, Stainless Steel	HMTNM6612
Single Number Board, Black	HMTNM6613
Triple Number Board, Stainless Steel	HMTNM6610
Triple Number Board, Black	HMTNM6611
NumiLED® PRO Boards - Large (720mm)	
Board, Stainless Steel	HMTND2159
Board, Black	HMTND2160

Description	Part No.
NumiLED® Kits - Small (396mm)	
Set of 10 small LED modules, 24V DC	HMTNM6605
Single Number Housing, Stainless Steel	HMTNM6606
Single Number Housing, Black	HMTNM6607
Triple Number Housing, Stainless Steel	HMTNM6608
Triple Number Housing, Black	HMTNM6609
NumiLED® Kits - Large (720mm)	
Set of 10 large LED modules, 24V DC	HMTND2156
Housing, Stainless Steel	HMTND2157
Housing, Black	HMTND2158

Spare Parts

9.HMTN001	NumiLED® 8-Way Distribution Board
9.HMTN002	NumiLED® Connection Cable - Single, 2m
9.HMTN003	NumiLED® Connection Cable - Triple, 2m
9.HMTN004	NumiLED® Vibration Mounting Kit
HM4960SA	DT Connector Kit - Male (pack of 10)



Spare Parts

9.HMTN002	NumiLED® Connection Cable - Single, 2m
9.HMTN003	NumiLED® Connection Cable - Triple, 2m
9.HMTN004	NumiLED® Vibration Mounting Kit
9.HMTN005	NumiLED® PRO Programming Dongle
9.HMTN006	NumiLED® PRO Programmable PCB
HM4960SA	DT Connector Kit - Male (pack of 10)
HMTNM6605	Small LED Modules, 24V DC (pack of 10)
HMTNM2156	Large LED Modules, 24V DC (pack of 10)