



HESS LOW ENTRY — REGIONAL PHENOMENAL

MOBILITY FOR CITY AND COUNTRY



The world is changing, and so too are people's requirements for mobility. For HESS, passionate vehicle construction is synonymous with ongoing further development. HESS regularly brings innovative products onto the market – with the aim of keeping up with customers' needs. In doing so, proverbial Swiss precision, reliable service and compliance with strict emission regulations naturally always play an integral part.

The innovative product groups from HESS include the LowEntry buses. This term is used for city buses with low-floor entry and a raised floor in the rear area, which houses the centrally located drive train beneath it. LowEntry buses were designed especially for long-distance transport and prove themselves on a daily basis on predominantly rural, hilly and mountainous routes. The vehicles, which are available in various sizes and each one having been specifically designed for its particular application, combine efficient mobility and ecological demands.



FOR HILLS AND VALLEYS

Being a company in an Alpine country, HESS is well aware of the demands that steep and hilly areas place on vehicles. In 1919, in other words about a century ago, HESS produced the first «Car Alpin». Constant further development of the HESS long-distance buses resulted in the LowEntry bus series «SwissAlpin» of today. With its short and especially narrow dimensions it is the perfect solution on challenging terrain. Narrow roads with hairpin bends, steep slopes, bad road surfaces or extreme weather conditions – nothing will get in the way of this climber. With its powerful engine, 22.5" tyres and exceptional manoeuvrability the SwissAlpin is really impressive. In addition, it features outstanding panoramic glazing on the roof of the rear area, which is an optional extra, and highly recommended, especially in areas which are attractive to tourists.

ADVANTAGES SWISSALPIN

- Maximum manoeuvrability
- 2.4 m width
- Quick and easy to get on and off (kneeling function)
- Generous seating arrangement, spacious standing room and large special-use area
- High-torque Scania engine
- Low running costs thanks to the robust drive train (22.5" tyres)
- Highest levels of corrosion resistance thanks to the aluminium construction
- Roof with panoramic glazing for an optimum view (optional)



FROM THE NARROW
AND THE
COMPACT...



TECHNICAL DATA SWISSALPIN 9.7/10.1/10.9

Length 9.7 m/10.1 m/10.9 m

Width 2.4 m

Height 3.24 m

Average turning circle just under 17 m/17.8 m/19.7 m

Seats 30 to 38 (+4)

Passenger capacity 60 to 80 persons

The same components as the mass-produced standard buses

Standard 275/70 R 22.5 tyres

Engine (Scania) from 206 kW (280 hp) to 265 kW (360 hp)

Coach body CO-BOLT® Aluminium System

Thanks to its width of just 2.40 m the HESS SwissAlpin, which varies in length from 9.7 m to 10.9 m, takes even the narrowest of roads in its stride. Despite its compactness, it is additionally exceptionally spacious. In addition to its 30 to 38 seats, the SwissAlpin provides an area for special use to accommodate pushchairs and wheelchairs – or four additional seats by using an optional slide-in platform.

The drive system of the HESS SwissAlpin, a Scania diesel engine with strong torque and exhaust gas recirculation (EGR), provides sustainable benefits for the operator in terms of operation and maintenance. As with all HESS buses the SwissAlpin, too, is based on the brilliant CO-BOLT® modular system, the aluminium bodywork of which guarantees a longer service life and is thus highly cost effective – thanks also to the long-term supply of spare parts.

... TO THE WIDE AND THE SPACIOUS





Standard and high-capacity buses are also part of the SwissAlpin bus series. Because they, too, have identical strengths: a rock-solid, conventional rear axle, a simple and thus robust, durable drive train, low-floor entry incl. kneeling function, generous space, good viewability, etc. But the high-capacity bus, being the only triple-axled vehicle, and, in addition, also available with a third door, deserves special attention. Its 13.5m and the greater seating and standing capacity make it the perfect solution whenever the 12m standard bus is too small.

TECHNICAL DATA SWISSALPIN 12/13.5

Length 12m/13.5m

Width 2.55m

Height 3.24m

Average turning circle 21.5m

Maximum permissible laden weight 18t/24.6t

Seats 41 (+2)/49 (+2)

Passenger capacity approx. 95/approx. 110 persons

Coach body CO-BOLT® Aluminium System

275/70 R 22.5 tyres

Engine (Scania) from 206 kW (280 hp) to 265 kW (360 hp)

Actively steered trailing axle (on the 13.5m)

CONSISTENT WELL DESIGNED



All LowEntry buses feature identical engines, transmission systems, axles, steering mechanisms, chassis and a raised floor in the rear, which houses the centrally located drive train beneath it. These extremely robust components have undergone years of testing and guarantee a high degree of efficiency and safety. The buses have also been equipped with the full range of state-of-the-art driving aids such as EBS, ABS and ESR – and when it comes to safety, HESS does not make any compromises for long-distance transport either. Drivers also benefit from a sturdily built front end, which protects their place of work from the consequences of any accidents. Additional safety features include doors designed to prevent people from becoming trapped, a ramp providing safe wheelchair access, and tried-and-tested seatbelts.

FOR SAFETY'S SAKE

- EBS, ABS, ESR
- The tyres (275/70 R 22.5) allow room for large, ventilated brake discs
- Large hubcap panels make it easy to fit snow chains
- BAV tested in accordance with the German Equal Opportunities for People with Disabilities Act
- With ECAS (Electronically Controlled Air Suspension) controlled pneumatic suspension
- Immobiliser system which operates when the doors are open
- Video surveillance (optional)
- Seatbelts (optional)
- LED daytime running lights (optional)



COMFORT TRAVELS WITH YOU

Once you've made a journey in the SwissAlpin you'll have something to talk about. The optimum view of the surrounding countryside, for example, which is provided by the extra-high side windows. Or the constantly pleasant temperature inside the vehicle which is yours to enjoy both in high summer and in the depths of winter – all thanks to the fully automated control of the heating and ventilation system. Generally speaking, passengers benefit to the same extent as the driver from the high standards of comfort in the SwissAlpin buses. The driver himself can delight in the pneumatic, air-conditioned driver's seat, and the driver's cab and the dashboard. Both of these have an ergonomic design and correspond to VDV (Verband Deutscher Verkehrsunternehmen) (Association of German Transport Companies) guidelines, but nevertheless offer ample opportunity to be adapted to personal requirements.

COMFORT ACROSS THE BOARD

- Bright, friendly and modern interior design concept
- Large seating capacity with ergonomically designed, comfortable individual seats
- Non-slip, durable flooring on plywood with good insulation properties
- Full low floor extending to the rear of the 2nd door
- Easily accessible disabled space with wheelchair securing device
- Type certified in accordance with BAV (CH) (Swiss Federal Office of Transport) and TÜV (Europa) (official vehicle testing organisation)
- Low noise emissions for passengers and residents
- Bright, anti-dazzle lighting with LED or fluorescent tubes
- A range of optional extras such as panoramic roof, full or partial air conditioning, luggage racks, ski and bicycle carriers at the rear, sanding gear, etc.

FORM AND FUNCTION TO PERFECTION



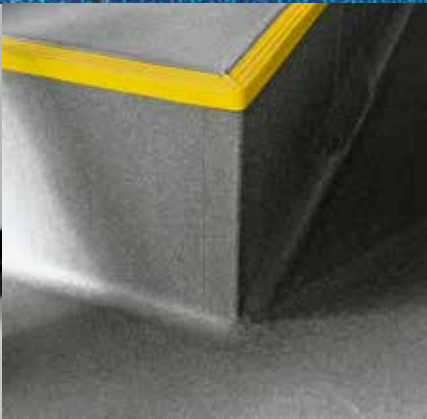
High functionality and a perfect design make the SwissAlpin buses top-class vehicles. A prime example of our technology leadership are the door systems. The sliding swing doors, interior swing doors or exterior swing doors are made by one of our subsidiaries and are part of the modular CO-BOLT® vehicle body developed by HESS. Even the paintwork and glazing of our bus series fulfil the highest quality standards. Customised paintwork and lettering according to customer requirements do not, incidentally, pose any problem at all.

GLAZING

- Bonded side wall and rear-wall window panes
- Flush glazing for large-scale exterior advertising
- Anti-vandal protective film upon request
- Toughened safety glass or insulating glazing

DOORS

- Either interior swing doors, exterior swing doors or sliding swing doors
- Kneeling lowering system for easier entry
- Disabled access using manual or portable ramps



Large windows, bright interior spaces, low-floor entry including wheelchair ramps for easy access by people with impaired mobility, handy grab poles, cleverly designed interior spaces, comfortable seating, an attractive design and an array of details which make travelling pleasant: HESS SwissAlpin buses provide the greatest enjoyment for travel, even for drivers. Their place of work leaves nothing further to be desired.

DRIVER'S WORKPLACE

- Generously proportioned driver's workplace
- Readily accessible, logically arranged controls
- Ergonomic driver's seat with air conditioning
- Closed rear wall with integrated electrics box
- VDV-compatible instrument panel
- Toolbox in triangular overhead instrument panel
- Automatic heating/ventilation system, individually adjustable temperature
- Bright, anti-dazzle lighting switched on either manually or automatically when the door opens
- Special spotlighting for the driver's seat and ticket machine
- Driver's seat air conditioning

INTERIOR FITTINGS

- Grab poles in a modern Inox design
- A bright overall concept bathed in light
- Comfortable seating
- Space for people with disabilities
- Generous standing room
- Cutting-edge design
- Compliant with the guidelines of Directive 95/28/EC relating to the burning behaviour of material used in the interior construction of certain categories of motor vehicles
- LED lighting
- Air conditioning in the passenger area (optional)

FLOORING

- Anti-slip flooring laid on timber flooring
- Tightly fused seams
- Platform and flooring edges bordered with a high-strength plastic profile on the sides
- Longer life
- Quick and easy cleaning

SOLID BASIS, LOW COSTS



The chassis of the SwissAlpine range are manufactured to the best quality standards. The robust ladder frames were specially designed for a long service life.

Stability, safety and a good travelling experience are additionally guaranteed by the full-air suspension with electronic level control as well as the hydraulic steering which requires surprisingly little force when steering. Last but not least, the solid floor made out of birch plywood offers the best HESS precision performance. Its insulation properties against air, noise and moisture are unparalleled. The chassis frame consists of thick-walled, multi-layer painted steel profiles and is fitted with HESS's own anticorrosion protection.

STEERING

- Hydraulic ball nut power steering
- An auxiliary pump at standstill secures oil pressure and light steering
- Force required in the case of breakdown of the power-assisted steering less than 500 N

AIR SUSPENSION

- Electronic level control on all axles as standard
- 2 rolling bellows on the front axle, 4 each on the middle and drive axle
- 6/8 shock absorbers for travelling comfort and the best road holding

AXLES

- The front axle is classic, robust and low maintenance
- A ZF portal axle with a low floor height
- Very quiet running and a low noise level

FLOOR CONSTRUCTION

- A birch plywood floor with local mats for additional insulation
- Floor plates glued resistant to boiling water
- Impact points and bearing surfaces specially sealed
- Extremely resistant to moisture

ANTICORROSION PROTECTION

- A 16-year guarantee against rusting through
- A hollow profile optimised with protective wax
- A wear layer in the wheel houses with AfraPlast
- No anticorrosion protection needed on the vehicle body structure

AN INGENIOUS MODULAR SYSTEM

The module system CO-BOLT® developed by HESS creates the common platform for our range of buses. CO-BOLT® fulfils the widest variety of requirements, has been tried and tested thousands of times, and is being continuously refined and expanded. The ingenious, ecologically sustainable construction offers a wide range of advantages concerning investment, driving characteristics and life cycle costs.

AT A GLANCE

- A long, problem-free service life
- Rapid and simple repairs
- A high loading capacity thanks to the light construction
- Exactly fitting replacement parts
- Optimal anticorrosion properties
- Use of more than 80 % recycled aluminium
- Excellent energy absorption in the case of a crash
- Screwed instead of welded

COACH BODY CO-BOLT®

- A structure made out of extruded aluminium profiles in the CO-BOLT® 3 module system
- Connections by means of corner supports and clamping plates
- Screw-locking device with a two-component glue
- The screws can easily be released at any time for repair work
- The side walls are prefabricated, roof with all components ditto
- Front, rear and roof covering made out of glass-fibre-reinforced plastic
- There are over 2,400 buses built globally in the CO-BOLT® system



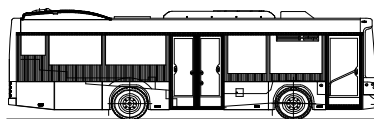
SERVICE DETAILS

Our buses are only as good as their ease of maintenance and the service which we offer to our customers before, during and after the sale. The main emphasis is upon reliability and passenger safety. In the case of repair work on the occasion of an accident, vandalism or other damages occurring, you can count on prompt processing and paying a fair price. We perform all types of repairs and maintenance work at various locations. To do this we have use, amongst other things, of our straightening machine with an up to 4 m high straightening tower. Also underbody protection and freshening up of paintwork in our painting cabins are included in the HESS service package.

Incidentally: you can count on obtaining rapid assistance whether in Germany or overseas using our hotlines.

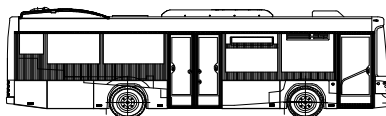


MODEL OVERVIEW



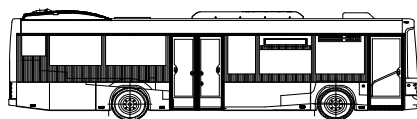
SwissAlpin / Scania KUB

Length:	9.7 m
Width:	2.4 m
Seats:	30 (+2)
Total passengers:	approx. 70



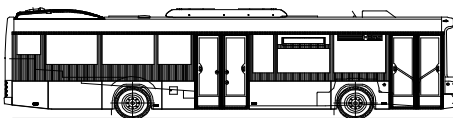
SwissAlpin / Scania KUB

Length:	10.1 m
Width:	2.4 m
Seats:	34 (+2)
Total passengers:	approx. 74



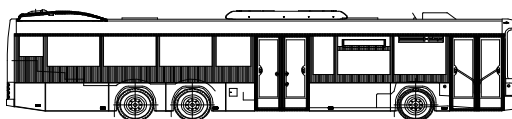
SwissAlpin / Scania KUB

Length:	10.9 m
Width:	2.4 m
Seats:	38 (+2)
Total passengers:	approx. 80



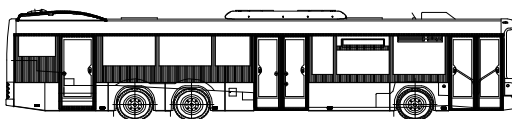
SwissAlpin / Scania KUB

Length:	12 m
Width:	2.55 m
Seats:	41 (+2)
Total passengers:	approx. 97



SwissAlpin / Scania KUB

Length:	13.5 m
Width:	2.55 m
Seats:	49 (+2)
Total passengers:	approx. 110



SwissAlpin / Scania KUB

Length:	13.5 m
Width:	2.55 m
Seats:	45 (+2)
Total passengers:	approx. 106

KNOW-HOW KNOWS NO BOUNDARIES

- HESS GROUP
- Service Partner



LOCAL ALL OVER THE WORLD

HESS solutions move the world. This is also true because we work closely with competent, local partners who are very familiar with their local circumstances. Thanks to our highly capable sales, development, manufacture and repairs and service functions we are your direct partner in Europe and the starting point for contact with licensees all over the world.

MOTION & EMOTION



- Licensees all over the world



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