

Urbino

### Urbino



Power of Enthusiasm

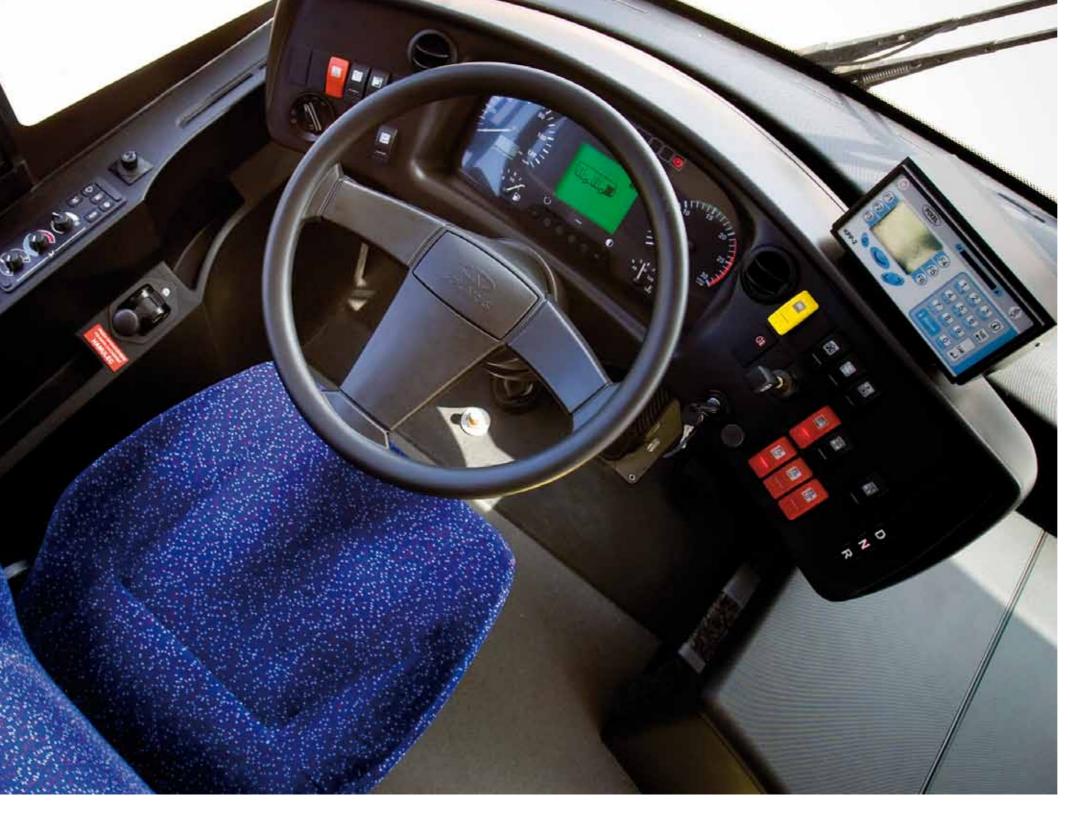


## Solaris Urbino an extremely talented family

Solaris Urbino is the name of the Solaris family of low-floor city buses. Members of this family are easily recognisable by the gently sloping windscreen line. This feature provides the driver with better visibility of the curb on the right side of the vehicle, increasing the safety of passengers waiting at the bus stop.

Apart from stylish design, elegance and practical solutions, Urbino buses guarantee comfort and safety for their passengers. All Solaris buses are made of corrosion-resistant steel. Urbino are fully low-floor, and their reinforced structure enables service in the toughest road and climate conditions. All buses have a 'kneeling' function, which enables them to lower the entrance side by approx. 70 mm, and are equipped with a ramp (operated manually or electrically), which is designed for passengers in wheelchairs.







Designed to meet passenger needs

Depending on their length (from 10 to 18,75 meters in the articulated version), Urbino buses may take up to 183 passengers on board. The buses are driven by modern, durable and economical diesel engines that meet current environmental requirements or by engines powered by compressed natural gas. The interior is spacious, quiet and neatly designed, with step-free aisles that ensure a safe and comfortable journey.

Air-conditioning in the passenger compartment and in the driver's cab provides a comfortable travel in all weather conditions. The design of the Solaris Urbino city bus makes the work of the driver and maintenance personnel easy.





# Solaris Alpino smart and practical

The Solaris Alpino, with its length of 8.6 m and width of 2.4 m, is the smallest and the 'thinnest' low-floor bus produced by Solaris. This vehicle was designed primarily for winding mountain roads and narrow streets of historic town centres. It also performs very well in congested big city centres. Despite its small size, the bus offers the same travel comfort and functionality as longer Solaris low-floor vehicles. Agile, practical, friendly to passengers and environment – that is the Alpino!





### A little bit more Solaris Urbino 18.75

The growing popularity of public transport inspired Solaris to develop another versatile model of the Urbino family: the Urbino 18.75. This vehicle continues the philosophy of its best-selling 18-metre-long counterpart, providing extra space for passengers. This latest development responds to the demands of bus operators facing the problem of increasing number of people using public transport at peak hours.

The Urbino 18.75 is the longest bus produced by Solaris so far. This model was extended between the first and second axle, which results in a turning radius that is only

slightly increased. This maintains the same convenient way of driving the bus and its easy maintenance. The extra length of the Urbino 18.75 adds welcome space to the passenger saloon, offering the possibility of installing an extra row of four seats.

All powertrain options of the standard models are available, too, from diesel and compressed natural gas or biogas engines to eco-friendly hybrids.



### **Eco-friendly Solaris Urbino CNG**

The Solaris Urbino CNG is a city bus powered by compressed natural gas or biogas. It is available in 12, 15 and 18-metre versions. Its popularity results from the combination of reliability, functionality and eco-friendly operation typical for the whole Urbino family. Another key factor is exploitation costs which are much lower when compared with their diesel-engined counterparts.

The gas-powered drive allows the emission of gaseous pollutants to be reduced by 85%, and particulate matter by almost 100% when compared to conventional engines. Therefore the Urbino CNG meets the most stringent environmental standards.

Solaris Urbino CNG buses can be prepared for both standard and rapid refueling, ideally adapting it to the existing city's infrastructure.







## **Solaris Airport Buses**

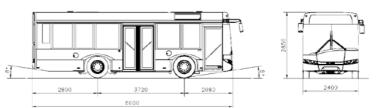
Solaris airport buses are designed to provide maximum passenger comfort and safety. Additional doors on the left side of the vehicle allow passengers to enter and leave the bus easily and quickly. Solaris airport buses are specially equipped (for example, with luggage racks, platforms for larger luggage, information boards displaying flight numbers and destination locations) to make the time before boarding the plane a stress-free experience.

Solaris Bus & Coach have significant experience in constructing buses for the aviation industry. In 1999, the company supplied its first comfortable and well equipped midi bus, which still operates as a VIP vehicle at Warsaw Chopin Airport.

Today, Solaris airport buses are used across Europe, including the airports of Paris Charles de Gaulle, Warsaw, Hamburg, Stuttgart and Riga.



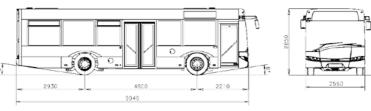
	standard ● option ○	Alpino 8.6	Urbino 10	Urbino 12	Urbino 15	Urbino 18	Urbino 18.75
	Engine						
Driveline	Cummins ISB6.7E6 250B (187 kW)	•	0	0			
	Cummins ISB6.7E62 80B (209 kW)		0	•			
	DAF MX11 210 (210 kW)			0			
	DAF MX11 240 (240 kW)			0	•	•	
	DAF MX11 271 (271 kW)			0	0	0	•
	Transmission						
	Voith Diwa 6	•	•	•	•	•	
	ZF Ecolife	0	0	0	0	0	0
	Allison Torqmatic (only with Cummins ISB6.7E6 250B or ISB6.7E6 280B)			0			
	Fuel tank						
	165	•	•				
	250 I	······································	0	•	•		
	3501			0	0	•	•
	AdBlue tank – 40 l (Cummins) / 50 l (DAF)	•	•	•	•	•	•
		•	•	•	•	•	
	Auxiliary heating system						
	Spheros (Webasto)	•	•	•	•	•	•
	Eberspächer (bio-fuel heater), heating tank	0	0	0	0	0	0
	Front axle						
	ZF RL 75 EC (independent suspension)	•	•	•	•	•	•
	ZF RL 85 A		0	0	0	0	0
	Drive axle						
	ZF AV 132 (supersingle)	•					
	ZF AV 132		•	•	•	•	•
	Trailing axle – ZF RL 85 A				•		
.s	Centre axle – ZF AVN 132					•	•
Chassis	Central lubrication						
	central lubrication point – solid oil	•	•	•	•	•	•
	Vogel KFBS1 with self-diagnostic facility – for semi-fluid grease	0	0	0	0	0	0
	Steering – ZF Servocom 8098	•	•	•	•	•	•
	Brakes						
	EBS electronic (dual-circuit) braking system incorporating the anti-blocking system (ABS) and the traction control system (ASR), parking (hand) brake with emergency release function from the driver's seat, bus stop brake	•	•	•	•	•	•
	Auxiliary brake – transmission-integrated retarder	•	•	•	•	•	•
	Suspension levelling system – ECAS II air suspension with kneeling function, raising by some 60 mm, lowering by 70 mm	•	•	•	•	•	•
Bodywork	Bodywork frame – stainless steel	•	•	•	•	•	•
	Side panels – stainless steel and aluminium panels	•	•	•	•	•	•
		1-2	1-2 1-2-2	1-2 2-2	1-2 2-2	1-2-2 2-2-2	1-2-2 2-2-2
	Door arrangement		1-2-2	1-2-2	1-2-2	1-2-2-2	1-2-2-2
				2-2-2	2-2-2	2-2-2-2	2-2-2-2
	Maximum entrance height						
	1 <sup>st</sup> door	320 mm	320 mm	320 mm	320 mm	320 mm	320 mm
	2 <sup>nd</sup> door	320 mm	320 mm	320 mm	320 mm	320 mm	320 mm
	3 <sup>rd</sup> door		340 mm	340 mm	340 mm	340 mm	340 mm
	4 <sup>th</sup> door					340 mm	340 mm
			•	•	•	•	•
	Passenger capacity seated (depending on the equipment)	9-15 + 1	16-25 + 1	25-43 + 1	36-50 + 1	29-51 + 1	33-55 + 1
Ventilation and air-conditioning	Air-conditioning in the driver's cabin – with electrical drive	0	0	0	0	0	0
	Air-conditioning in the passenger compartment – with mechanical drive	0	0	0	0	0	0
	Ventilation system – dual-function fans (blowing and extraction facility)	•	•	•	•	•	•
	Roof hatches – electric	•	•	•	•	•	•
	Passenger compartment heating system – convector-type heaters, 2-stage blowers	•	•	•	•	•	•
Electrical system	Wiring looms and boards						
Sy	CAN-Bus based electrical system	•	•	•	•	•	•



#### Alpino 8.6

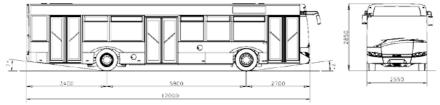
Interior height Kerb weight / Gross vehicle weight Turning circle

2370 [mm] 8600 - 10300 / 14400 [kg] ~15.8 [m]



#### Urbino 10

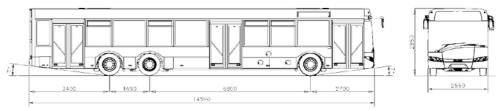
Interior height Kerb weight / Gross vehicle weight Turning circle 2370 [mm] 9300 - 11700 / 15500 [kg] ~18 [m]



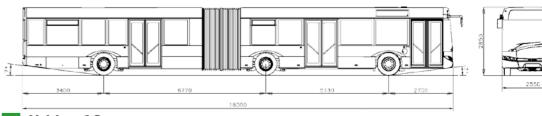
#### Urbino 12

Interior height Kerb weight / Gross vehicle weight Turning circle

2370 [mm] 10400 - 13000 / 18000 [kg] ~21.4 [m]

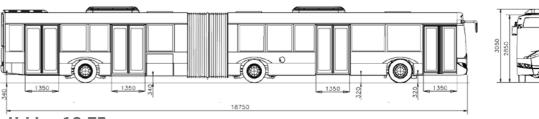


#### Urbino 15



#### Urbino 18

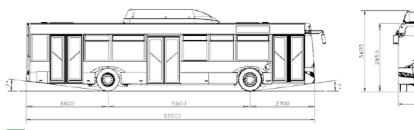
Interior height 2370 [mm]
Kerb weight / Gross vehicle weight
Turning circle 2370 [mm]
15500 - 18500 / 28000 [kg]
~23 [m]



#### **Urbino 18.75**

Interior height Kerb weight / Gross vehicle weight Turning circle 2370 [mm] 15500 - 18500 / 28000 [kg] ~24 [m]

	standard •	option $\circ$	Urbino 12 CNG	Urbino 15 CNG	Urbino 18 CNG
Driveline	Engine				
	Cummins ISLG8.9E6 320 (239 kW)		•	•	•
	Transmission				
	Voith Diwa 6		•	•	•
	ZF Ecolife		0	0	0
	Gas tanks				
	composite gas cylinder 6 x 214 I (according to ECE R110)		•	•	
	composite gas cylinder 7 x 214 l (according to ECE R110)			0	
	composite gas cylinder 8 x 214 l (according to ECE R110)				•
	composite gas cylinder 9 x 214 l (according to ECE R110)				0
	Auxiliary heating system – Spheros (Webasto)		•	•	•
	Front axle				
	ZF RL 75 EC (independent suspension)		•	•	•
	ZF RL 85 A		0	0	0
	Drive axle – ZF AV 132		•	•	•
	Trailing axle – ZF RL 85 A			•	
	Centre axle – ZF AVN 132				•
40	Central lubrication				
Chassis	central lubrication point – solid oil		•	•	•
5	Vogel KFBS1 with self-diagnostic facility – for semi-fluid grease		0	0	0
	Steering - ZF Servocom 8098		•	•	•
	Brakes				
	EBS electronic (dual-circuit) braking system incorporating the anti-blocking system (ABS) and the traction control system (ASR), parking (hand) brake with emergency release function from tous stop brake	the driver's seat,	•	•	•
	Auxiliary brake – transmission-integrated retarder		•	•	•
	Suspension levelling system – ECAS II air suspension with kneeling function, raising by some 60 m	nm, lowering by 70 mm	•	•	•
	Bodywork frame – stainless steel		•	•	•
	Side panels – stainless steel and aluminium panels		•	•	•
Bodywork	Door arrangement		1-2 2-2 1-2-2 2-2-2	1-2 2-2 1-2-2 2-2-2	1-2-2 2-2-2 1-2-2-2 2-2-2-2
	Maximum entrance height				
	1 <sup>st</sup> door		320 mm	320 mm	320 mm
	2 <sup>nd</sup> door		320 mm	320 mm	320 mm
	3 <sup>rd</sup> door		340 mm	340 mm	340 mm
	4 <sup>th</sup> door				340 mm
	Access ramp – wheelchair ramp at the 2 <sup>nd</sup> entrance, positioned and stowed away manually		•	•	•
	Passenger capacity seated (depending on the equipment)		25-42 + 1	36-49 + 1	29-51 + 1
Ventilation and air-conditioning	Air-conditioning in the driver's cabin - with electrical drive		0	0	0
	Air-conditioning in the passenger compartment - with mechanical drive		0	0	0
	Ventilation system – dual-function fans (blowing and extraction facility)		•	•	•
	Roof hatches – electric		•	•	•
	Passenger compartment heating system				
	convector-type heaters		•	•	•
	2-stage blowers		•	•	•
Electrical system	Wiring looms and boards				
	CAN-Bus based electrical system		•	•	•



#### Urbino 12 CNG

Interior height Kerb weight / Gross vehicle weight Turning circle

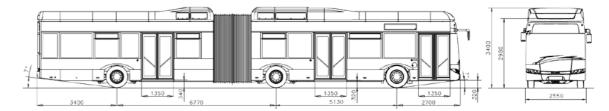
2370 [mm] 10400 - 13000 / 18000 [kg] ~21.4 [m]



#### Urbino 15 CNG

Interior height Kerb weight / Gross vehicle weight Turning circle

2370 [mm] 12700 - 15500 / 24000 [kg] ~24 [m]



#### Urbino 18 CNG

Interior height Kerb weight / Gross vehicle weight Turning circle

2370 [mm] 15500 - 18500 / 28000 [kg] ~23 [m]



Solaris Bus & Coach S.A. ul. Obornicka 46, 62-005 Owińska, Poland Tel. +48 61 667 2333, Fax +48 61 667 2310 solarisbus@solarisbus.com, www.solarisbus.con