

WARNING SPHERES

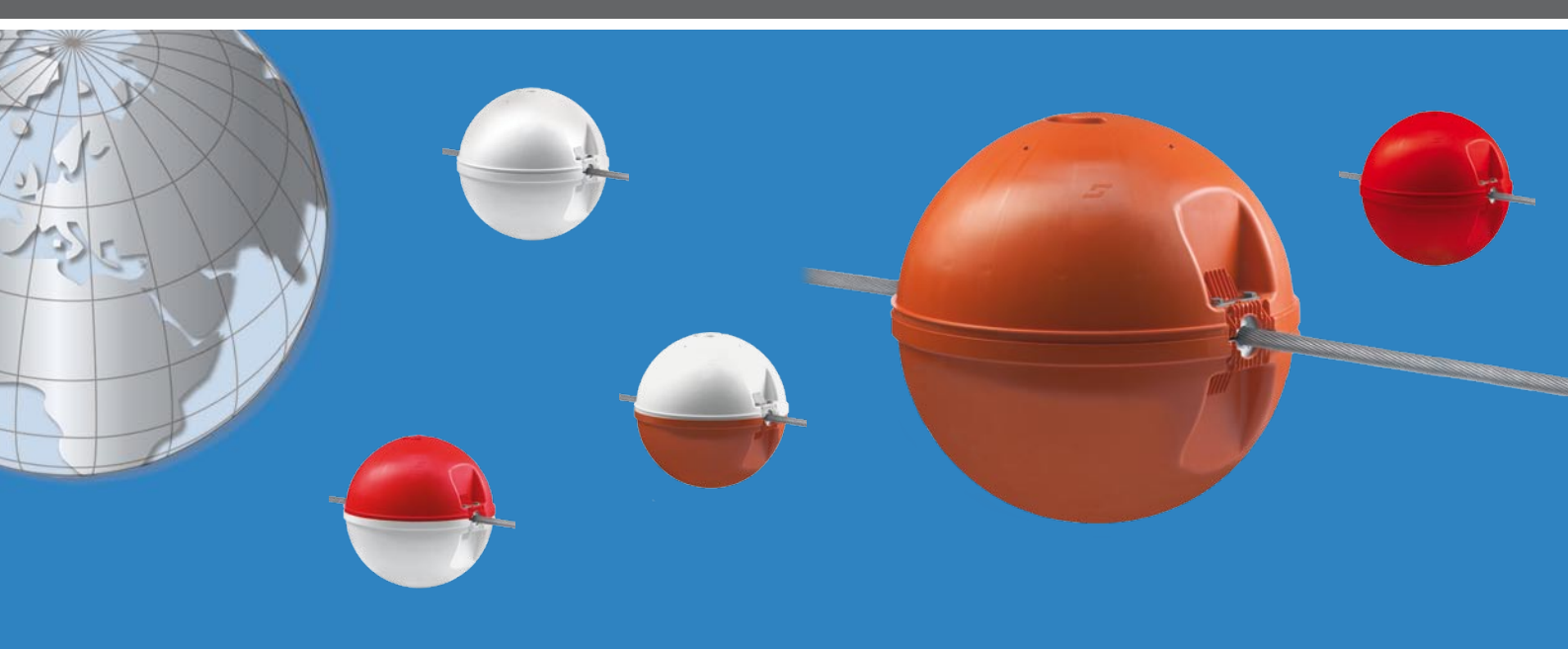
Order information



Cable-Diameter	Orange	Red	White	Red / White	Orange / White
Ø 9.3 - 10.6	180 537-152	180 537-252	180 537-352	180 537-452	180 537-552
Ø 10.6 - 11.9	180 537-153	180 537-253	180 537-353	180 537-453	180 537-553
Ø 11.9 - 13.2	180 537-154	180 537-254	180 537-354	180 537-454	180 537-554
Ø 13.2 - 14.5	180 537-155	180 537-255	180 537-355	180 537-455	180 537-555
Ø 14.5 - 15.8	180 537-156	180 537-256	180 537-356	180 537-456	180 537-556
Ø 15.8 - 17.1	180 537-157	180 537-257	180 537-357	180 537-457	180 537-557
Ø 17.1 - 18.4	180 537-158	180 537-258	180 537-358	180 537-458	180 537-558
Ø 18.4 - 19.7	180 537-159	180 537-259	180 537-359	180 537-459	180 537-559
Ø 19.7 - 21.0	180 537-160	180 537-260	180 537-360	180 537-460	180 537-560
Ø 21.0 - 22.3	180 537-161	180 537-261	180 537-361	180 537-461	180 537-561
Ø 22.3 - 23.6	180 537-162	180 537-262	180 537-362	180 537-462	180 537-562
Ø 23.6 - 24.9	180 537-163	180 537-263	180 537-363	180 537-463	180 537-563
Ø 24.9 - 26.2	180 537-164	180 537-264	180 537-364	180 537-464	180 537-564
Ø 26.2 - 27.5	180 537-165	180 537-265	180 537-365	180 537-465	180 537-565
Ø 27.5 - 28.8	180 537-166	180 537-266	180 537-366	180 537-466	180 537-566
Ø 28.8 - 30.1	180 537-167	180 537-267	180 537-367	180 537-467	180 537-567
Ø 30.1 - 31.4	180 537-168	180 537-268	180 537-368	180 537-468	180 537-568
Ø 31.4 - 32.7	180 537-169	180 537-269	180 537-369	180 537-469	180 537-569
Ø 32.7 - 34.0	180 537-170	180 537-270	180 537-370	180 537-470	180 537-570
Ø 34.0 - 35.3	180 537-171	180 537-271	180 537-371	180 537-471	180 537-571
Ø 35.3 - 36.6	180 537-172	180 537-272	180 537-372	180 537-472	180 537-572
Ø 36.6 - 37.9	180 537-173	180 537-273	180 537-373	180 537-473	180 537-573
Ø 37.9 - 39.2	180 537-174	180 537-274	180 537-374	180 537-474	180 537-574
Ø 39.2 - 40.5	180 537-175	180 537-275	180 537-375	180 537-475	180 537-575
Ø 40.5 - 41.8	180 537-176	180 537-276	180 537-376	180 537-476	180 537-576
Ø 41.8 - 43.1	180 537-177	180 537-277	180 537-377	180 537-477	180 537-577
Ø 43.1 - 44.4	180 537-178	180 537-278	180 537-378	180 537-478	180 537-578
Ø 44.4 - 45.7	180 537-179	180 537-279	180 537-379	180 537-479	180 537-579
Ø 45.7 - 47.0	180 537-180	180 537-280	180 537-380	180 537-480	180 537-580
Ø 47.0 - 48.3	180 537-181	180 537-281	180 537-381	180 537-481	180 537-581
Ø 48.3 - 49.6	180 537-182	180 537-282	180 537-382	180 537-482	180 537-582
Ø 49.6 - 50.9	180 537-183	180 537-283	180 537-383	180 537-483	180 537-583
Ø 50.9 - 52.2	180 537-184	180 537-284	180 537-384	180 537-484	180 537-584
Ø 52.2 - 53.5	180 537-185	180 537-285	180 537-385	180 537-485	180 537-585
Ø 53.5 - 54.8	180 537-186	180 537-286	180 537-386	180 537-486	180 537-586

Materials

- Jaw made of aluminium alloy with grooved channel
- Hemisphere made of coloured GFR-Polyamide
- Plates made of steel – hot dip galvanised
- Screws made of steel – hot dip galvanised
- Safety Plate – made of stainless steel



Polyamide

OVERHEAD LINES

PRODUCT CATALOGUE

WARNING SPHERES

For Making Overhead Cables Clearly Evident

THE POWER CONNECTION

CABLE SYSTEMS | COMPONENTS | OVERHEAD LINES | RAILWAY CATENARY SYSTEMS

WARNING SPHERES



BEST SOLUTION

FOR LARGE DISTANCE AND LONG TERM VISIBILITY

General

Warning Spheres are installed on overhead cables to alert low flying airplanes and helicopters of the obstacle.

They are generally placed near airports and on elevated spans crossing rivers, lakes, fjords, valleys, roads, railways, construction sites and pipelines. Other locations are: near military bases, police stations, hospitals, helicopter routes and other low flying areas. Warning Spheres are attached on the uppermost conductors, shieldwires or on the top of power line towers.



Warning Spheres in service

Key Data



Warning Sphere

PFISTERER SEFAG has been developing Warning Spheres since 1964 to provide markers that can guarantee long term color stability and reliable performance.

The warning device consist of two hemispheres attached to the overhead cable by two bolted clamps. The key elements of the Warning Sphere are UV and Ozone resistant material and painting. A special installation mechanism allows a single linesman to easily install the Warning Sphere.

Moreover a properly designed clamp structure avoids deformation of the sphere material due to tightening of the bolts.

Due to the application of a stainless steel safety plate, clamp loosening is impossible.

The high rigidity of the spheres prevents acoustic noises including rattle between the two hemispheres and vibration fatigue problems, for the whole life time of the overhead cable on which they are installed.

Features

Warning Spheres

- The diameter of the sphere is generally 600 mm. Other diameters between 300 and 1200 mm are available on client's request.
- The Warning Sphere can be delivered in three different type of UV and Ozone resistant colors (red, orange and white). The visibility of the Warning Sphere is enhanced by the choice of colours that contrast with the natural background.
- Two-colour spheres or alternating white and orange or red spheres can be used when the natural background colour changes with seasons, to guarantee constant visibility.
- The heat insulated characteristic of the Polyamide makes the Warning Spheres resistant to icing.
- The jaws are made of aluminium and feature a grooved channel, which makes slipping impossible.
- The Warning Spheres can be used for transmission and distribution lines of any voltage without any adjustment of the insulating distances.
- The Warning Spheres are made of Polyamide which can be reinforced by glass fibres (GFR). (Polyethylene is also available)
- For aluminium based conductors and OPGW shield wires we recommend to install the Warning Spheres over armour rods.
- Drain holes prevent accumulation of rain inside the spheres.
- Reduction of transport and storing costs due to intelligent stacking is possible.



Clamp structure



Different coloured hemispheres



Intelligently stacked hemispheres ready for transport