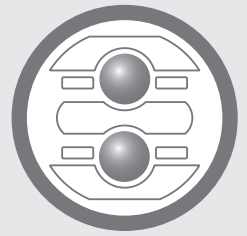


Industrial products

FLEXBALL ITALIANA

WR CONTROLS GROUP



▼ PULL AND PUSH-PULL CABLES

Flexball has a wide range of wire cables that is the result of the experience of 50 years of design of pull and push-pull cables for the most different applications: from the simple pull throttle cable to the more sophisticated gear shifter cable or to the very performing cable of a power transmission pump.

Wire rope controls are only used in tension applications and can be matched with a variety of handles and levers on one side and several attachments (blades, clevis, threaded terminal) on the other side.

The pull cable is schematically composed of conduit, wire and end fittings. The mixing of these three basic elements determines a big choice of cables.

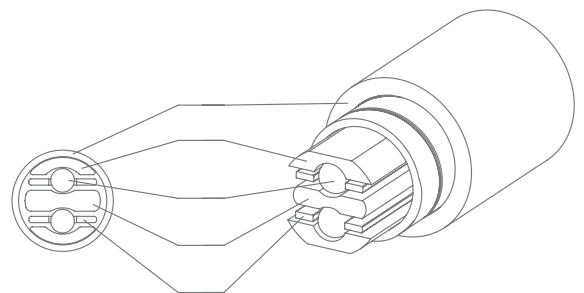
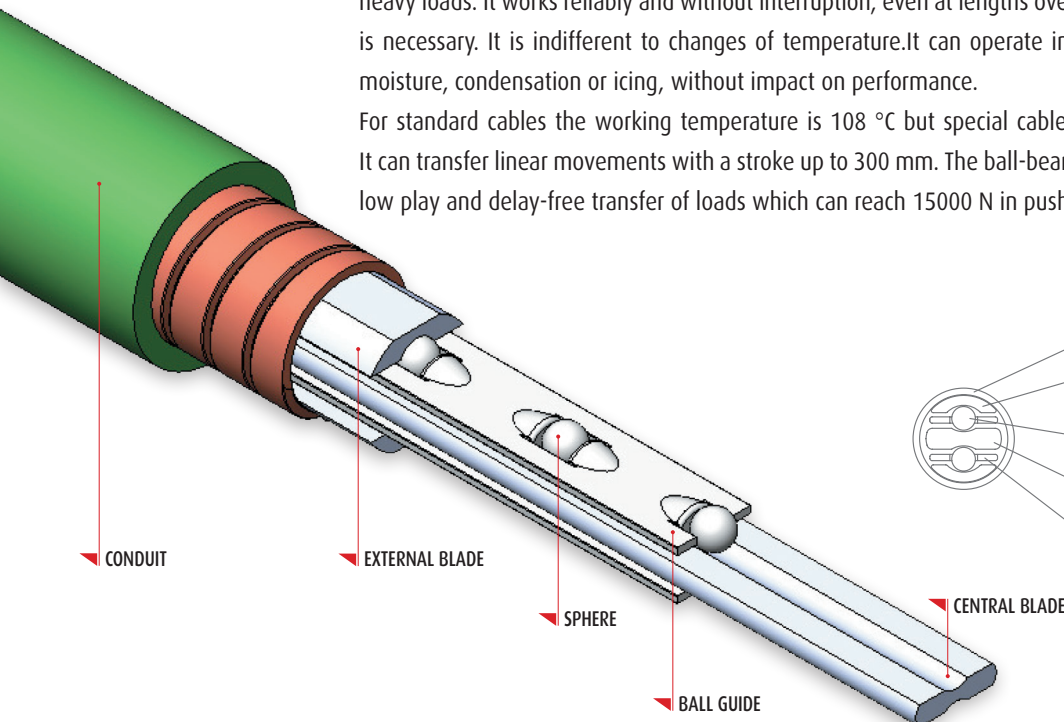


▼ FLEXBALL CABLES

It's efficiency is highly better than any traditional push-pull cable. The Flexball cable maintains high mechanical efficiency and very low backlash which approaches to zero, even in complex routings and difficult installations.

Flexball cable can be spatially laid on all the three dimensions with low bending radii and 97% efficiency, also under heavy loads. It works reliably and without interruption, even at lengths over 60 meters. No maintenance or lubrication is necessary. It is indifferent to changes of temperature. It can operate in severe environmental conditions such as moisture, condensation or icing, without impact on performance.

For standard cables the working temperature is 108 °C but special cable versions can work up to 200 °C degrees. It can transfer linear movements with a stroke up to 300 mm. The ball-bearing principle enables a smooth movement, low play and delay-free transfer of loads which can reach 15000 N in push and 25000 N in pull operation mode.



FLEXBALL
ITALIANA

WR CONTROLS GROUP



CONTROLS FOR HYDRAULIC VALVES

SINGLE AXIS



1010



1500



1600

Single axle controller

- Cable exits at 180 degrees with respect to the lever: **series 1000**
- Cable exits at 90 degrees with respect to the lever: **series 1500**
- Cable exits at 45 degrees with respect to the lever: **series 1600**

Double axle controller

- Heavy duty joystick for construction equipment and agricultural applications: **series 2000**
- Heavy duty joystick for construction equipment and agricultural applications: **series 2500**
- Light duty joystick for agricultural applications: **series 2800**
- Medium duty joystick for agricultural applications: **series 2900**



2000



2500



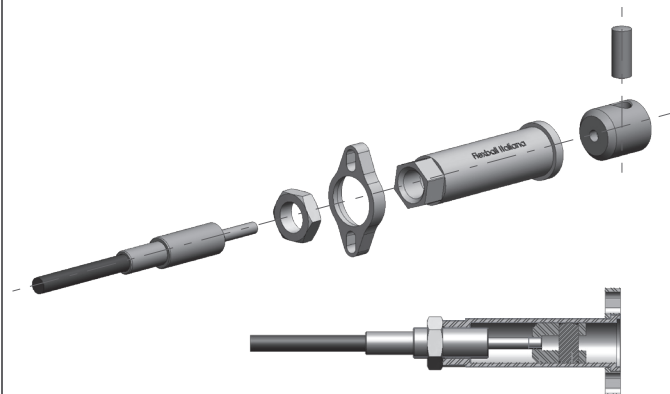
2800



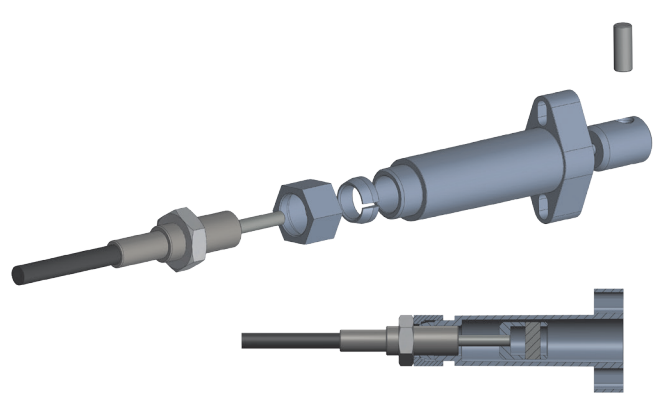
2900

JOYSTICK

Connecting kits with separate flange



Connecting kits with integrated flange



▼ LIGHT DUTY CONTROLS

▼ PLASTIC LEVERS



400

105

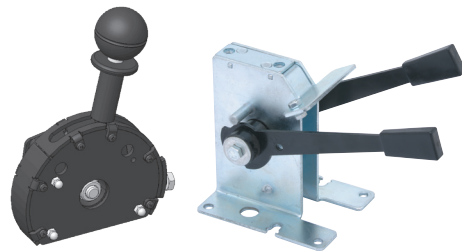
▼ ALUMINIUM LEVERS



2000

460

▼ SPECIAL LEVERS



415

470

▼ HEAVY DUTY CONTROLS

▼ SMALL/MEDIUM SIZE



E95

103

▼ BIG SIZE



561

920 and 930

901

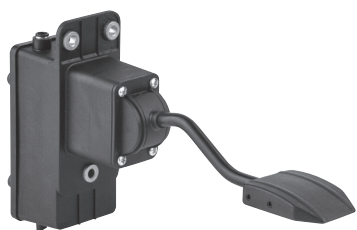
▼ MULTI FUNCTION LEVERS



1068

ETC

▼ MECHANICAL PEDALS



1200



1220



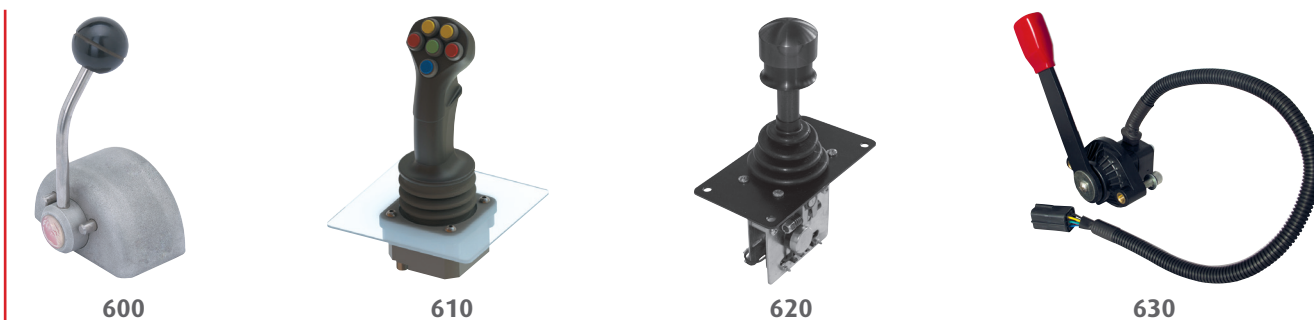
1230



▼ ELECTRONIC PEDALS



▼ HAND THROTTLE CONTROLS



▼ ELECTRONIC JOYSTICK 700

Joystick series 700 combines proportional electric outputs with switches, rockers and push button. The above functions can be implemented on many different types of handles. Electrical outputs are full programmable for voltage, current, PWM and CANBus.

The electronic circuit is fully protected against water and any kind of contaminants. Thanks to its particular enclosure, IP67 is guaranteed for the whole electronic circuits and environmental contamination is minimized.

Measuring position is through Hall effect sensors which guarantee a precise proportional control in the whole working area with programmable reaction time for any kind of movement of the joystick's lever.

Programming via PC guarantees full flexibility in the setting of the interface profiles. Its strong structure guarantees long life operation also in case of misused conditions.

