

## SPECIFICATION OF THE MEASUREMENT AND CONTROL SYSTEM FOR THE EXTRUSION LINE ENP09

### Range:

1. Measurement of the outer diameter of manufactured cables with an accuracy of at least 0.1mm in at least 2 axes.
2. The result of the applied coating wall thickness. Calculation of average values for the input data.
3. 4 pieces of measuring heads (bore gauges). Before extruding the filler, after filling, after applying the hot coating, and after measuring the diameter of the finished cold product.  
The range of cable diameters in the line:
  - head I - 10mm to 65mm
  - head II - 10mm to 75mm
  - head III - 15mm to 100mm
  - head IV - 15mm to 100mm.
4. Cable ovality measurement. Calculation of average values for input and static data.
5. Operational reliability. The device must function properly from the beginning of the production cycle to the end.
6. Visualization of data online and from a time range of approximately 1 hour back.
7. Data logging and transmission capabilities. A free Ethernet interface should have PLC line drivers (the ability to assign a unique IP address and connect to the company's LAN).
8. Possibility to read the measurement data we are interested in, the preferred method is running the OPC-UA server, or an available standard communication protocol for reading data, e.g. Modbus TCP or other.
9. Automatic operation of the device requires no operator intervention.
10. Possibility of connecting existing line devices such as a leak tester, length counter, and line speed.

**11. Maximum line speed: 50m/min.**

**12. Automatic control of the entire line, taking into account diameter readings.**

It can be viewed at Tele-Fonika S.A., Kraków-Wielicka 114, during an site inspection.