

# Application report

## Cable- and wire processing

### Application

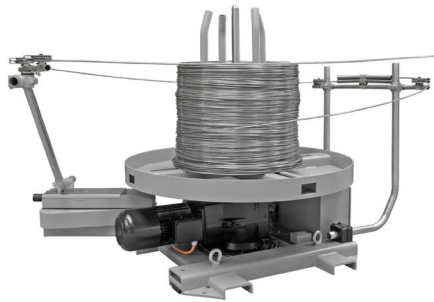
- Wire Pay-Off

### Product

- Inductive analog sensor

In industry, there are many applications where wire is processed. This includes the electrical sector and the manufacture of springs, screws, baskets and grids, for example.

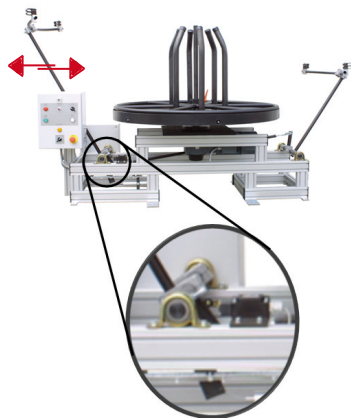
In order to process wire, wire pay-offs can be used in addition to other equipment. A wire pay-off allows the wire to be wound up and unwound horizontally as a ring or as a coil.



Wire pay-off AHP 4

Smooth operation of the wire pay-off is required for optimum interaction of the machine and pay-off. Only in this way is a higher-quality product assured. When the processing machine draws in the wire, a tractive force is produced. This tractive force is minimised by the speed-controlled drive which enables a high feed accuracy to be reached.

The wire is fed over a lever before it is drawn in by the machine. At the bottom of this lever is a metal plate whose position changes according to the tractive force. This change in position is detected by an inductive analog sensor of the type MKL 015 and converted into an analog 0-20 mA signal. This signal corresponds to the tractive force of the wire on the wire pay-off and can be used directly for speed control. This ensures optimum flow of material to the machine. In addition, the maximum analog value of the sensor can be used by the wire pay-off control as a threshold for an emergency shutdown in the event that the wire on the pay-off becomes blocked.



Proxitron analog sensors are distinguished by their compact housing form and waterproof case, which means they can also be used in harsh industrial conditions.

In addition, the measuring range and linearisation is adjustable individually by button or the standard RS 485 interface. This permits easy and optimum adaptation to the application.

### At a glance:

- Ambient temperature -10 up to +70 °C (+100 °C)
- High quality PBT plastic housing
- Waterproof plug connection



### Technical data MKL 015.190 S4

Measurement range:	0 - 15 mm linear
Type of installation in metal:	non flush
Output:	0 - 20 mA (other values available)
Operating voltage:	24 V DC
Interface:	RS 485

### Accessories

3-pin angled connector with 5 m moulded connection cable for analog evaluation.

5-pin angled connector with 5 m moulded connection cable for additional use of RS 485 interface.

MK\_Soft 2, interface converter from RS 485 to USB with parameterisation software for Proxitron analog sensors.

### Options

- Output 0 - 10 V
- Output 4 - 20 mA