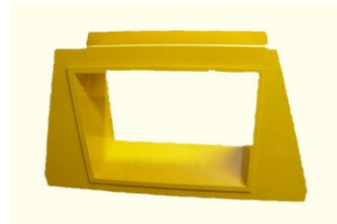




## HKP 7 metal detector



### Description:

If a metal object passes through, HKP 7 will switch a relay contact and usually the conveyor belt will stop. The metal presence signal can also be used to turn over the flap in the material flow and thus remove a part of the material following the metal object. When the material is removed, the flap will return and the flow will continue. Another possibility is to switch on the magnetic separator only if a metal object needs to be removed.

An evaluation unit, which can be controlled on the spot by means of control elements or by remote control, e.g. through the control system, is connected to these functions. Individual buttons and status indicator lamps for HKP 7 can be found on the terminal panel.

The inspected material may also contain a trace amount of metal elements which may influence the sensitivity ratio of HKP 7. These elements can be eliminated to some extent by lowering the sensitivity or by a special adjustment made only by the manufacturer. When in doubt, or if there is any suspicion of metal elements in the inspected material, we recommend you to send a 1-10kg (1-10l) sample to the manufacturer prior to ordering HKP 7. The manufacturer will perform tests and eventually adjust the evaluation unit.

The standard antenna is made according to the drawing below. If other diameters and shapes are used, they are based on the parameters in this manual and a part of the antenna can be modified if necessary.



### Use:

The HKP 7 metal detector is designed to signalize the presence of a metal object in non-metallic materials on the transport path, for example on a conveyor belt. The sensor has high sensitivity which can vary according to the size of the antenna. The rule is: the higher the opening, the lower the sensitivity. The length matters as well, but the sensitivity does not vary so much with length.

The most frequently found metal objects are: iron and ferro-alloys, manganese alloy used for drilling rigs, aluminium and aluminium alloys, copper, brass, etc. These objects may not have magnetic properties and thus cannot be removed by a magnetic separator. HKP 7 is able to indicate all these object independently of their chemical composition.

### Technical parameters::

Power supply	230V/50Hz
Input power	50 VA
Relative humidity	up to 95%
Max. attainable sensitivity	see the picture
Max. distance between the sensor and the evaluation unit	15m
Ambient temperature	-30°C to +60°C heating available for lower temperatures
Ambient temperature for the antenna	-58°C to +60°C
Output	max.50W, 230Vst, 8A
Protection	IP 54
Dimensions	Antenna-see tab. Casing VSHKP-5,1: 400x300x250 (h x w x d)

**The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.**



## HKP 7 metal detector

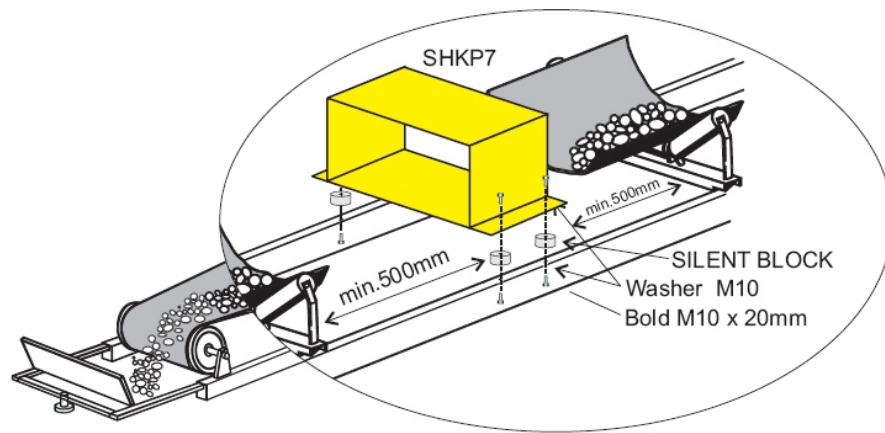
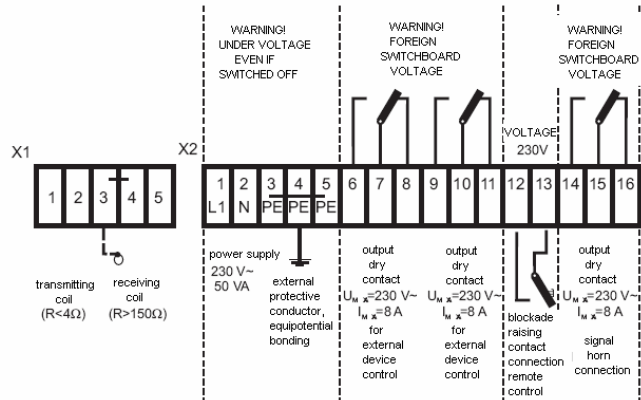
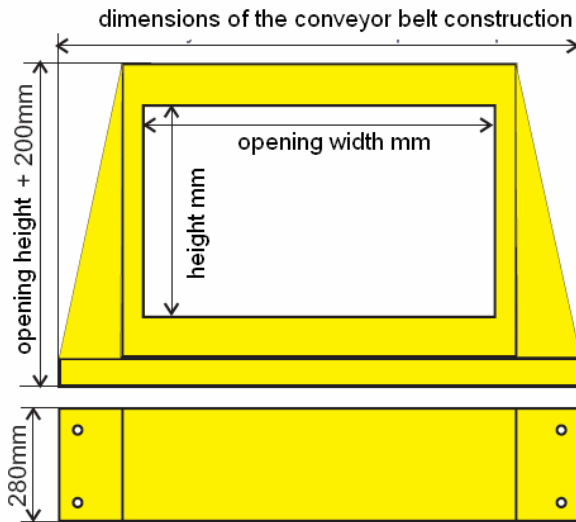


Table of sensitivity of the HKP-7 metal object guard

Opening height	Metal ball diameter - Fe material															
	4	5	6	8	10	20	30	50	100	150	200	200	200	200	200	200
1000	4	5	6	8	10	20	30	50	100	150	200	200	200	200	200	200
900	4	5	6	8	10	20	30	50	100	120	120	120	120	120	120	120
800	4	4	6	6	10	20	30	50	100	100	100	100	100	100	100	100
700	3	4	5	6	10	15	25	50	80	80	80	80	80	80	80	80
600	3	4	5	6	8	10	20	50	50	50	50	50	50	50	50	50
500	3	4	5	6	8	10	20	25	50	50	50	50	50	50	50	50
450	3	4	5	6	8	10	20	25	30	30	30	30	30	30	30	30
400	3	4	5	6	8	10	20	20	30	30	30	30	30	30	30	30
350	3	4	5	6	8	10	15	15	20	20	20	25	25	25	25	25
300	3	3	4	6	8	10	10	10	20	20	20	20	20	20	20	20
200	2	3	4	6	6	6	6	6	6	6	6	8	10	10	10	10
150	2	3	4	4	4	5	5	5	5	5	5	6	6	6	6	6
100	2	3	3	3	4	4	4	4	4	4	4	5	5	5	5	5
50	2	2	2	2	3	3	3	3	3	3	4	4	4	4	4	4
Opening width	50	100	150	200	250	300	400	600	800	1000	1200	1400	1600	1800	2000	2200

All dimensions are in mm

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