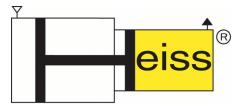


Hydraulic-Block Cylinder HBZ 350

With aluminum housing and adjustable magnetic field sensors



Magnetic Field Sensors – General Information

Magnetic field sensors allow touch-free sensing of piston positions and are thus wear-free. This sensor technology replaces the common reed switches, which are not touch-free and thus subject to wear. Magnetic field sensors can be moved along the groove of the cylinder housing and can be locked at the sensing position using a set screw. The sensors are unsusceptible to vibrations, make bounce-free contact and are susceptible to magnetic fields only and not to metal flakes or other metal parts.

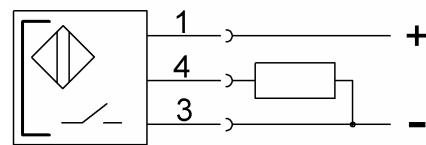
Function

A permanent magnet is installed on the bottom of the piston and can be detected by the magnetic field sensor through the non-magnetic cylinder wall. As the piston approaches the sensor the output signal changes into the other switching status.

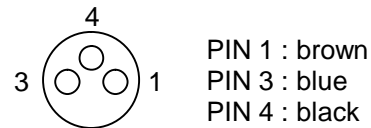
Specifications:

Output function	: PNP
Operating voltage U_B	: 10...30 V DC
Voltage drop static max. U_d	: $\leq 3,1$ V
Rated insulation voltage U_i	: 75 V DC
Effective operating current I_e	: 200 mA
No-load current I_o max.	: ≤ 30 mA
Short-circuit protected	: yes
Protected against polarity reversal	: yes
Protected against miswiring	: yes
Rated switching field strength $ H_n $: 1,2 kA/m
Assured switching field strength $ H_a $: ≥ 2 kA/m
Hysteresis of $ H_n $: $\leq 45\%$
Temperatur drift of $ H_n $: $\leq 0,3\%/^{\circ}\text{C}$
Turn-on/turn-off delay	: $\leq 0,05$ m/s
Temperaturdrift des Einschaltpunktes	: $\leq 0,3\%/^{\circ}\text{C}$
Ambient temperature range T_a	: $-25...+85^{\circ}\text{C}$
Enclosure type per IEC 60529	: IP 67
Certification	: CE, cULus
Housing material	: LCP
Connection type	: 0,2 m cable PUR with straight M8-connector, 3-poles
Cable (included)	: PUR – cable 5m(3 x 0,34 mm ²) with straight M8-connector, 3-poles

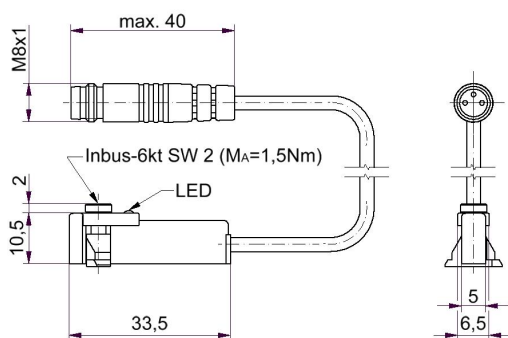
Wiring diagram:



Connector view:



Dimensions:



Minimum switching distance when installed in the same groove is about 15mm; when installed opposite no minimum switching distance has to be taken into account.

Two magnetic field sensors are standard equipment for the Block Cylinder. A cable of 0.2m with connector is molded to the magnetic field sensor. A 5m cable with receiving connector is also included. Should only one or more than two sensors or a longer cable be required, please, indicate this with the type designation.

If required the cylinders can be fitted with two parallel T-grooves on one side. Please indicate this under "X".

Generic Data of HBZ 350

All dimensions of the HBZ 350 match the dimensions of the HBZ 500 series except the length "L" of the housing. These lengths are shown on the opposing page.

The maximum operating pressure is 350 bar. The remaining information such as operational conditions, piston force diagram, optional equipment and functional modes are listed in the brochure of the HBZ 500 series.