

## Turbidity Sensor PiT 400

### 1. Description

The MAHLE Turbidity Sensor PiT 400 was developed to reliably identify turbidity in hydraulic fluids.

Ingress of water into the hydraulic system causes turbidity in the hydraulic fluid:

Water in hydraulic fluids can harm the function of the entire system and reduce the life span of the pressure fluid and the system's components.

Turbidity in the fluid is quickly recognised by the sensor, so that precautionary measures can be taken before a failure of the system occurs. Therefore the sensor offers great security for the entire system. The sensor should be installed in all fluid systems that are at risk of being contaminated by water, e.g. by defect coolers, broken seals or condensed water.

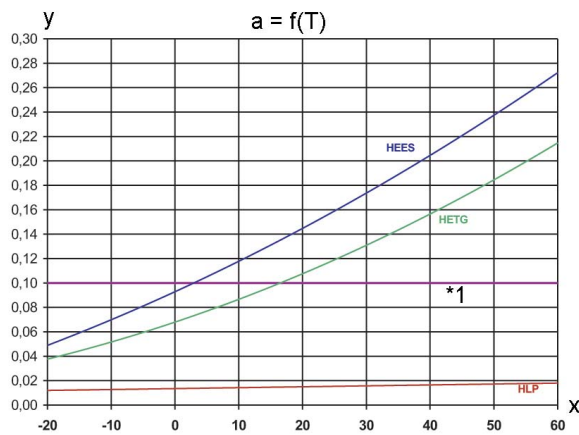
The sensor should preferably be installed in the return line, the tank or the bypassing oil cooling. It can be easily calibrated to the normal condition of the fluid by the push of a button.

The sensor measures the reduction of emitted IR-light caused by turbidity.

The range of applications covers all HLP-, HEES- and HETG - fluids.



## 2. Water solubility



Water solubility of different hydraulic fluids determined by the temperature.

\*1 VDMA-threshold

x = temperature T [°C]

y = water content [%]

## 4. Specifications

|                        |                    |
|------------------------|--------------------|
| Materials:             | CuZn, PA           |
| Type of protection:    | IP 65              |
| Connection:            | G 1 ¼              |
| Nominal pressure:      | 10 bar             |
| Operating temperature: | -25 °C to 85 °C    |
| Signal suppression:    | < 0 °C             |
| Connection plug:       | M12x1 plug, 4 pole |
| Power supply:          | 24 V DC 20 %       |
| Switching outlet:      | PNP, 200 mA        |
| Signal delay:          | 60 s               |

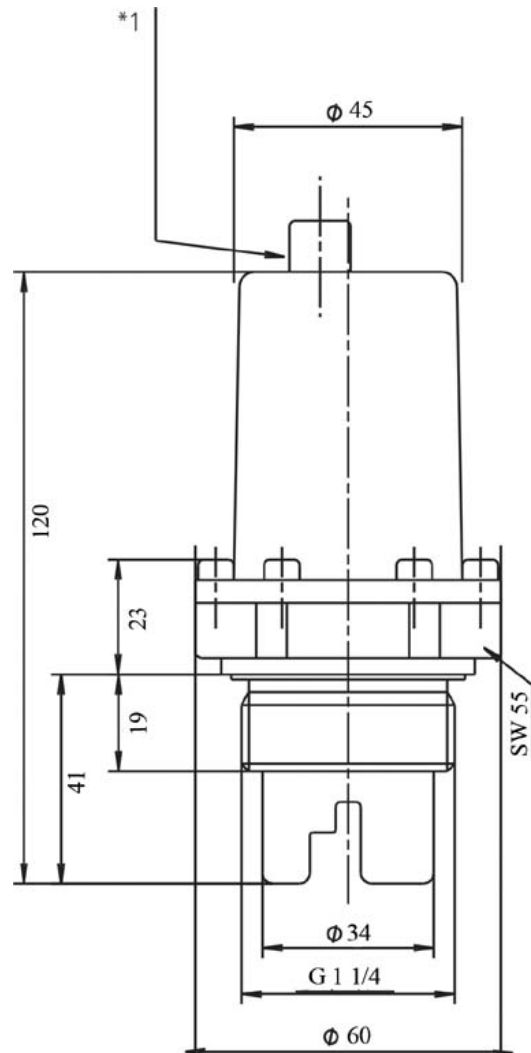
## 5. Order number

|             |              |
|-------------|--------------|
| Type number | Order number |
| PiT 400     | 76322598     |

Subject to technical alteration without prior notice.

MAHLE Filtersysteme GmbH  
 Industriefiltration  
 Schleifbachweg 45  
 D-74613 Öhringen  
 Phone +49 (0) 7941/67-0  
 Fax +49 (0) 7941/67-23429  
 industriefiltration@mahle.com  
 www.mahle-industriefiltration.com  
 70319411.04/2008

## 3. Dimensions



\*1 M12x1 plug, 4 pole

