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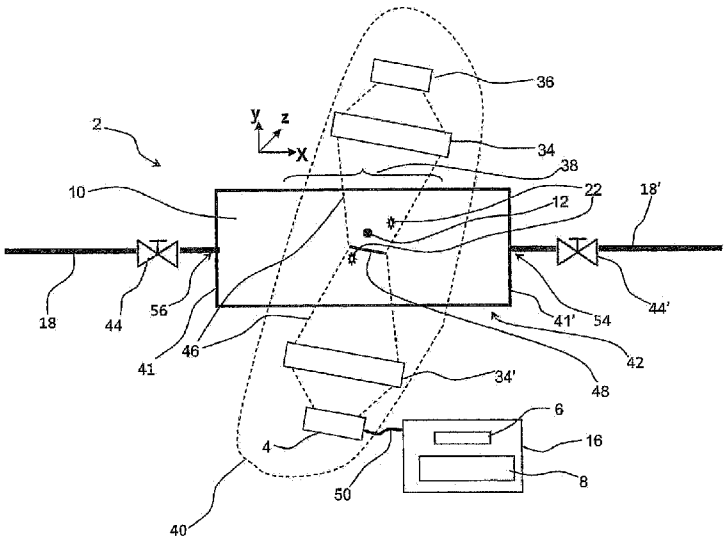
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(54) **Title**: MONITORING SYSTEM

Fig. 1



(57) **Abstract**: The present invention relates to a monitoring system (2) for monitoring the number and/or concentration of particles and/or micro organisms (12, 22) in a fluid (10). The monitoring system (2) is configured to generate an alarm if a predefined criterion is meet. The monitoring system (2) comprises a micro processor (6) configured to execute programmed instructions in order to identify and classify particles (12); storage means (8) and an optical sensor member (40) comprising: a 2-d optical sensor (4) and a light source (36). The optical sensor member (40) is configured to record at least one image of at least a part of the fluid (10) and the monitoring system (2) is configured to determine the number and/or concentration of particles (12) in the fluid (10) on the basis of the optical response of single particles (12) in a sample zone (38) in the fluid (10). The fluid (10) in the sample zone (38) is kept stationary relative to the optical sensor member (40) during the recording of an image.

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