CLAIMS

[CLAIM 1] A sensor device provided with:

a body,

formed at the interior of which is a fluid passage into which fluid serving as detection target flows; and

a pressure sensor

which is installed at the body so as to be in communication with the fluid passage and

which detects fluid pressure within the fluid passage;

the sensor device being characterized in that

the body has a cylindrical inside circumferential surface, and has a cylindrical portion extending in a vertical direction and a head portion fitted within a top end of the cylindrical portion;

the fluid passage includes a helical passage in the cylindrical portion and a lateral passage in the head portion;

provided therein is an insert

that is formed in the shape of a rod at which a helically shaped groove is formed on an outside circumferential surface thereof, and

that is inserted into the cylindrical portion of the body such that the inside circumferential surface of said cylindrical portion and the helically shaped groove together form the helical passage;

a temperature sensor having a cylindrical sheath pipe, incorporated within which is a thermocouple or resistance temperature detector that detects temperature of the fluid, the sheath pipe being inserted in the insert with a tip of the sheath protruding from the insert;

the helical passage has one end open at a bottom end face of the cylindrical portion and another end in communication with the lateral passage; and

the pressure sensor is disposed within the head portion, is inserted in the lateral passage from above so as to be in communication

with the lateral passage, and detects a fluid pressure within the lateral passage.

[CLAIM2] The sensor device according to claim 1, the sensor device being characterized in that

the helically shaped groove of the insert

extends in a vertical direction and

has a descending portion that is downwardly inclined as one proceeds toward a location in communication with the pressure sensor.

[CLAIM3] The sensor device according to claim 1 or 2, the sensor device being characterized in that

the helically shaped groove of the insert is formed so as to be arcuate in shape as viewed in horizontal cross-section.