



PT44 series increased

The [PT44](#) series features excellent optical properties, a high repeat accuracy and a small linearity deviation that make these diffuse reflection laser sensors the ideal solution for monitoring the presence of minute objects or for detecting the overlapping of extremely thin materials. Owing to their variety of functions and the extremely compact aluminum housing with protection class IP67, the devices can be integrated very simply in all manner of production processes.

From spring 2016, the series includes additional devices that have even more to offer: While the predecessors have been available in three different versions with measuring ranges from 25 to 35mm, 35 to 65mm and 65 to 135mm, the new versions feature an operating range from 120 to 280mm ([PT440303](#)), respectively from 200 to 600mm ([PT440304](#)).

Equipped with the possibility to configure the switching output with a window function and the additional option to switch the transmitter on and off via cable, you will rarely find a comparable device.

Besides, the 4-digit display of the diffuse reflection sensors shows the measured distance values and is used for an easy menu navigation during configuration. Not least because of the very good price-performance ratio the devices are performing very well in Germany.



Small size, large switching distance

There is also a new one among the inductive proximity switches: The [IN060186](#) supplements the plus-series in design 6.5mm, round, with a switching distance of 6mm. In addition to the increased switching distance, the inductive sensor convinces with its stainless steel housing, a short-circuit and reverse polarity protection as well as an integrated amplifier. For further information please have a look at the [data sheet](#).





New filling level sensor FK900400

The **FK900400** is, among other things, intended as a substitute for vibrating forks, hence the “paddle”-shape. The main advantage is the missing mechanics. Behind the thread, there is an undercut or stop, on which an O-ring for sealing has to be placed. The sensor is designed in a way that the “paddle” must be surrounded by the filling material to trigger a switching process. The default setting is suitable for materials with a dielectric constant (ϵ_r) from 2 to 80.

The screw to cover the potentiometer is therefore provided with thread-locking fluid.

Who wants to readjust can do this – but with loss of warranty! For an overview about the ϵ_r of various materials, see the table below. The sensors are tested to a pressure of 10bar at the active surface.

The best aspect is the price: there has never been a filling level sensor with a list price of 69€.



Please note: As there are many materials, the O-ring is not included. It has to be found out what is best for the respective application.

Relative permittivity of some materials

material	ϵ_r
vacuum	1.0
air	1.00059
acrylnitrile butadiene styrene (ABS) at 30 °C	4.3
benzene	2.28
glass	5 ... 10
glycerin	42.5
rubber	2.5 ... 3.5
wood (dry)	2 ... 3.5
methanol	32.6
paper	1 ... 4
polyethylene (PE) at 90 °C	2.4
petroleum	2
plexiglas	3.4
polypropylene (PP) at 90 °C	2.1
Styropor®	1.03
water at 18 °C	81.1