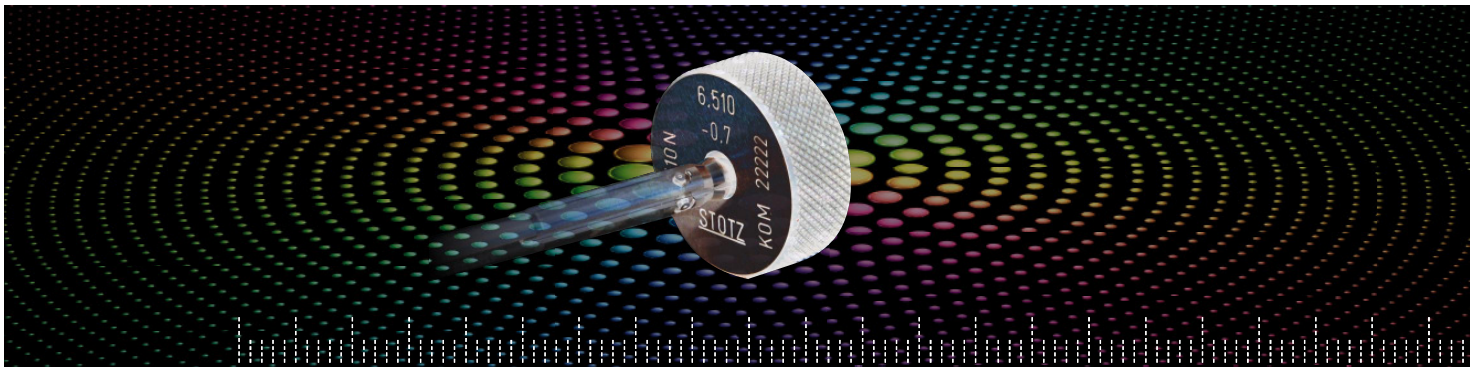




Digital Rapid Pneumatic Transducer



DSPW

DSPW

description

The Digital Rapid Pneumatic Transducer DSPW is used with pneumatic measuring tools to evaluate longitudinal changes in micrometer ranges. A digital electronic output signal is produced by the DSPW. This signal can be displayed on several devices or be employed to control processing machines.

The DSPW contains no moving parts and is therefore free of wear. It has the distinction of high precise measuring for quick measurements, a negligible small hysteresis and small dimensions.

The setting time of the DSPW is only 40 ms.

operating mode

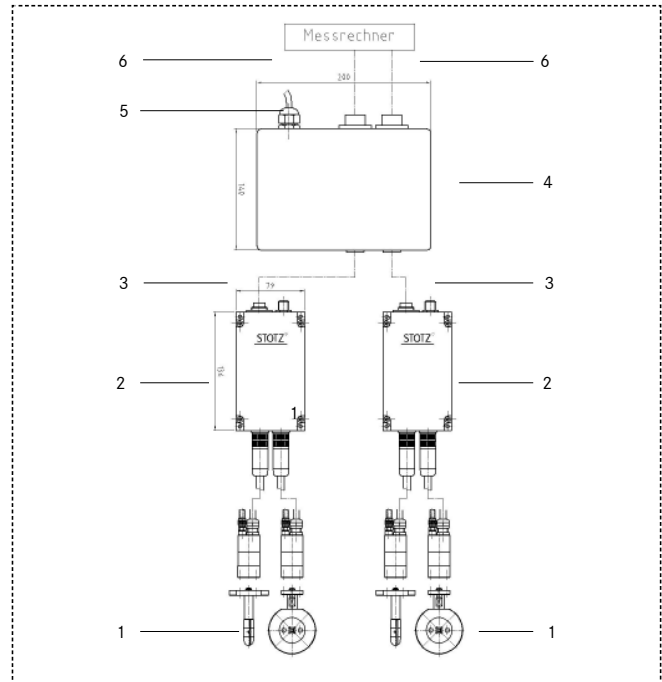
Via the gauge (e.g. an airjet mandrel) connected to the DSPW an air pressure proportional to the longitude that has to be measured (e.g. bore diameter) is generated at the measuring point.

This air pressure is captured by a pressure sensor and converted into a voltage output proportional to the longitude. Fluctuations of the air pressure supply are controlled by a second pressure sensor and if necessary readjusted.

application area

The DSPW is employed mainly for dynamic measurements. Its dimensions in association with its specific electronic guarantees a minimal setting time. An Ethernet interface allows a direct and platform independent Computer interface (e.g. Linux, Solaris, Windows, etc.).

connecting diagram DSPW



position	description
1	gauge (e.g. airjet mandrel)
2	DSPW
3	K-DSPW
4	power supply NT-DSPW2
5	power supply cable with with protection plug
6	Ethernet cabel

power supply NT-DSPW2



technical data DSPW

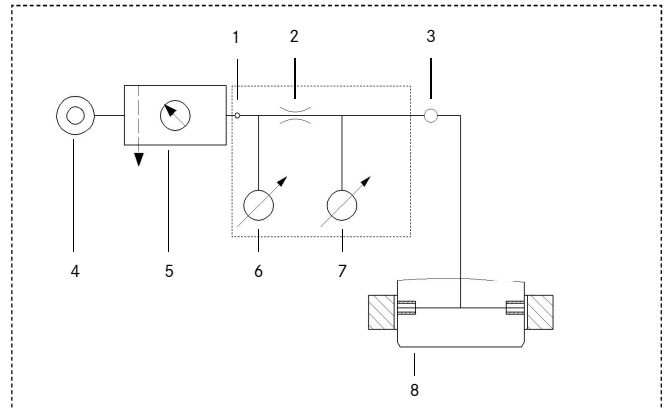
device characteristics

power supply	24 V DC / 24 VAC / 50 Hz
power input	5 VA
linearity	≤ 0,5% of measuring range
operating area	20...60 V DC
external input	±12 V
pressure	3,0 ±0,1 bar
air consumption	aprox. 2 m ³ /h with free blow out
requirements	oilfree, filtered
setting time	40 ms
Ingress Protection	IP 65
temperature	10 ... 55 °C (ambient temperature limit)
Ethernet	
dimensions	3,11x2,72x5,35 inch / 79x69x136 mm

types

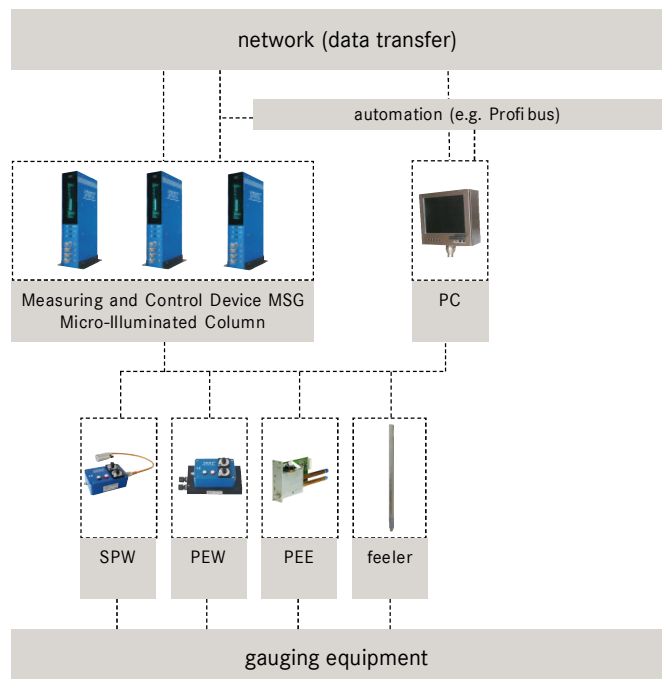
- with CAN-BUS
- with Profibus

measuring principle



position	description
1	input compressed air
2	nozzle
3	connector for measuring tool
4	compressed air source
5	service unit for compressed air
6	sensor 1
7	sensor 2
8	measuring tool

network



network (data transfer)

automation (e.g. Profibus)

Measuring and Control Device MSG
Micro-Illuminated Column

PC

SPW PEW PEE feeler

gauging equipment

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