

6.510

Digital Rapid Pneumatic Transducer





DSPW

description

The Digital Rapid Pneumatic Transducer DSPW is used with pneumatic measuring tools to evaluate longitued 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 guaranties a minimal setting time. An Ethernet interface allows a direct and platform independend 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	Ethernet cable
6	power supply cable with with protection plug

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	2060 V DC
external input	±12V
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 ℃ (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



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