

Gageline TPE100

Pneumatic-electronic transducer with excellent linearity



Associated with air tooling the TPE100 transducer is capable of performing **extremely high precision dimensional measurements**.

Thanks to its **patented functional principle**, the TPE100 can be used for offline and post-process applications as well as in-process measurements.

The TPE100 is characterized by a simple change of the pneumatic formula with fully integrated cartridge and **automatic recognition of the pneumatic formula** with one-wire chip (patented).

System features

- Static, differential or dynamic measurements
- Compact housing with modular design: mounted directly to the air tooling or in banks
- Fast response time of <20 ms
- LED for status display of the operating conditions
- With digital and analog output
- Fully compatible with the TPE99 and TPE200 transducers
- Low air consumption and low noise level
- Air pressure regulator for the compressed air supply:
 - Operating pressure 2.5 – 3.5 bar
 - Works without precision pressure regulator
- Safety function: Detection of a supply pressure < 2.5 bar

Gageline TPE100

Extremely fast pneumatic-electronic converter

Associated with air tooling, the TPE100 offers the following advantages:

- Non-contact measurement
- High sensitivity (accuracy up to 0.1 μm)
- Durable and reliable air tooling
- Automatic cleaning of measured surfaces
- Measurement in harsh workshop conditions
- Recommended for in-process gaging on Grinding, Super finishing, Honing, Milling, Turning and Transfer machines
- Simultaneous measurement of multiple features of a part
- Static and/or dynamic measurement of geometric tolerances such as straightness, flatness, circularity, cylindricity, profile, angularity, squareness, parallelism, position, concentricity, symmetry, runout, etc.

Technical characteristics

Air feed port	1/4" BSP female
Measuring range	from ± 5 to ± 120 μm
Precision	up to 0,4 % of the measuring range
Protection	IP67
Electrical communication/Output signal	4 – 20 mA/CANopen (M12/8 pins)
Operating temperature	from +5 °C to +50 °C
Electrical supply voltage	from 12 V to 24 V AC
Display devices	Measuring computer Gageline Sirius and Vega*

* The connection is made via the Gageline PS50, PS75 and PS100 measuring satellites.

