

STRIP THICKNESS | STRIP WIDTH

CONTACT GAUGES VBK

APPLICATION

- ▶ Strip material and flat wire made of metal
- ▶ Optional: profiled wire

FUNCTION

- ▶ Two transducers contact the upper and lower side of the strip, the sum of the individual measurements is the absolute thickness
- ▶ Optional a second pair of transducers is used for the measurement of the strip width

ADVANTAGES

- ▶ Combined measurement of thickness and width possible
- ▶ Precision up to one micrometer per millimeter of strip thickness
- ▶ Correct results even with oiled strip



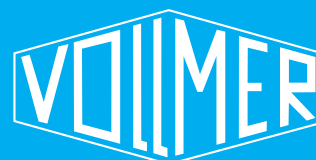
TYPE SERIES		VBK 512	
PROCESS PARAMETERS		THICKNESS MEASUREMENT	WIDTH MEASUREMENT for wire thickness 0,1 - 9 mm
Material to be measured	metal strip and flat wire		
Maximal strip temperature	120 °C (up to 200 °C with reduced accuracy)		
Maximal strip speed	600		
MEASUREMENT PARAMETERS			
Measurement range	0 – 9	0 – 32	mm
Measurement throat depth (- 5 mm = max. measurement depth)	20	-	mm
Maximal pass line variation during measurement	± 1	± 1	mm
Measurement resolution	0.1	0.5	µm
Measurement accuracy $T_i \geq 10$ ms, measurement insert material: diamond, ambient temperature > 18 °C	± 0.1 % of nominal value, but not better than ± 0.001 mm		± 0.1 % of nominal value, but not better than ± 0.002 mm
Horizontal positioning	manual		
Sampling rate	1		
Averaging time T_i	1 – 2,000		
DIMENSIONS			
Width (installation space) in strip pass direction	thickness measurement only: 100 (120) thickness and width measurement: 165 (185)		mm
Height below pass line	200		
Width outside line	200		
CONNECTION DATA / CONSUMPTIONS / ENVIRONMENT			
Interfaces	alternative: PROFINET, PROFIBUS DP, TCP/IP, hardware (digital and analog in- and outputs)		
Supply voltage / connected load	110 – 230 V AC, 50 – 60 Hz / 1 kW		
Protection class	gauge head: IP64; pneumatic cabinet: IP55		
Environment	temperature: 5 – 50 °C, relative humidity: 0 – 95 %		
Compressed air quality acc. DIN ISO 8573-1	solids: quality class 5 = max. 40 µm, particle density < 10 mg/m ³ water content: quality class 5 = 9.4 g/m ³ at 10 °C, oil content: quality class 4 = oil content < 5 mg/m ³		
Compressed air supply	pressure: min. 5 bar, consumption: max. 2 m ³ /h		
OPTIONS			
Special strip guiding	for disadvantageous proportion of strip thickness to strip width		
Adjustable cardanic suspension	for stiff or thick material		
Cylindrical guiding rolls	for strip width > 20 mm		
Profiled guiding rolls	for profiled wire		

DB VBK171115



**Friedrich Vollmer
Feinmessgerätebau GmbH**

Verbandsstraße 60 b · 58093 Hagen
Fon: +49 2334 507-0 · Fax: +49 2334 507-199
contact@vollmergmbh.de



www.vollmergmbh.de