

APCA-45 / APCS-45 tool setting probes with automatic protection covers



Robustly engineered to measure tools in even the harshest environments

The APCA-45 and APCS-45 are compact and robust tool setting probes, specifically engineered for the harshest environments found in lathes and multi-tasking machines. A range of innovative design features ensures accurate and reliable tool measurement, delivering reduced scrap, improved quality and increased throughput.

Product features

- Rapid measurement of turning, parting, grooving, threading and boring tools.
- Pneumatic cover ensures the stylus is fully protected when not in use.
- Cover is extended using air and retracted using either air (APCA-45) or a spring (APCS-45). Spring retraction requires one less M-code on the CNC control.
- Robust and compact stainless-steel body provides installation flexibility, enabling fitment in areas of the machine previously unsuitable for tool setters.
- Integrated air-bleed helps the stylus remain free of debris, for accurate and reliable measurement (includes air blast port for customers who require tool cleaning).

Product benefits

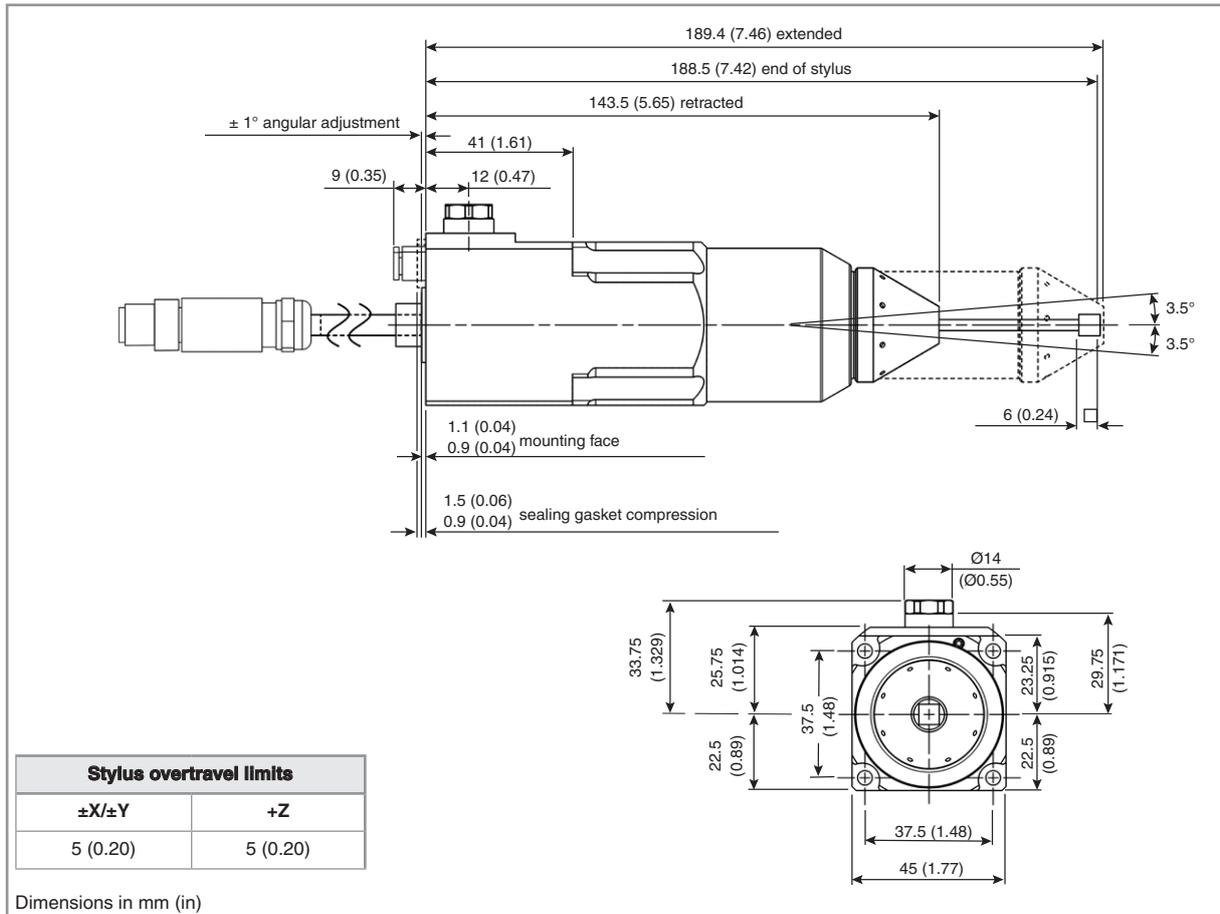
- Reduced human error and scrap through increased measurement automation.
- Increased throughput and reduced downtime through rapid in-process control (measurement can take place with the part still in the chuck).
- Improved product quality through the compensation of tool wear and thermal effects.

Technical highlights

Transmission type	Hard-wired	
Compatible interfaces	HSI or HSI-C	
Weight	1200 g (42.33 oz)	
Cable length	0.5 m (1.64 ft)	
Sense directions	±X, ±Y, +Z	
Unidirectional repeatability	1.50 µm (59 µin) 2σ (see note)	
Stylus trigger force	XY plane (low force)	0.49 N, 50.25 gf (1.77 ozf)
	XY plane (high force)	0.90 N, 92.21 gf (3.25 ozf)
	+Z direction	6.79 N, 692.88 gf (24.44 ozf)
Pneumatic air supply (operating pressure)	Max 6.5 bar (94.27 psi) Min 4.5 bar (65.27 psi)	
Pneumatic connections	3 off (extend, retract and optional air-blast).	
Mounting	M4 x 50 mm (1.97 in) long	
Sealing	IPx6 and IPx8	

Note: Performance specification is tested at a standard test velocity of 480 mm/min (18.9 in/min). Significantly higher velocity is possible depending on application requirements.

Dimensions



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