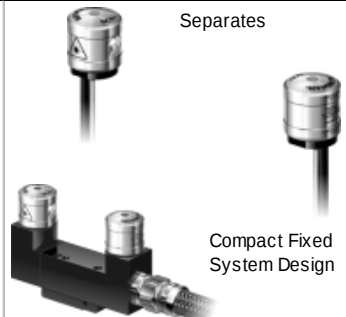


Non-contact portfolio	NC1	NC3	NC4	
www.renishaw.com Probing solutions for CNC machine tools			 Modular Fixed System Design	 Separates Compact Fixed System Design
	Function	Tool setting and breakage detection	Tool setting and breakage detection	Tool setting and breakage detection
Laser classification	670nm, visible red, Class 2 <1mW	670nm, visible red, Class 2 <1mW	670nm, visible red, Class 2 <1mW	
Laser beam	Collimated	Collimated	Collimated	
Fixed system length (operating gap), mm	F300 (190mm), F200 (90mm), F150 (40mm)	135 (80mm)	Modular *** F300 (225mm)	Compact *** F95 (23mm) ; F115 (55mm) ; F230 (170mm)
fixed system dimensions	120mm (H) x 35mm (W). Length 300mm, 200mm or 150mm	69mm (H) x 26mm (W) x 135mm (L)	102mm (H) x 40mm (W) x 300mm (L)	77mm (H) x 30mm (W)
Separate system operating gap	0.5 - 0.7m; 0.7 - 1.0m; 1.0 - 1.4m; 1.4 - 2.0m	Not Applicable	0.3 - 0.5m ; 0.5 - 0.8m ; 0.8 - 1.5m ; 1.5 - 2.0m ; 2.0 - 3.0m ; 3.0 - 5.0m	
Tx / Rx dimensions	70mm (H) x 35mm (W) x 55mm (L)	Not Applicable	Dia 30mm x 35mm high	
Repeatability of trigger points (2σ)	±1µm fixed system; ±2µm separate system	±0.15µm	Typical ±0.1µm ** Specified ±1µm at 1m	
Minimum tool detect	0.1mm	0.1mm	0.03mm **	
Minimum tool measure	0.15mm	0.2mm	0.03mm **	
Pneumatic supply	2off 4mm OD plastic pipe	1off 3mm OD plastic pipe	1off 3mm OD plastic pipe	
Environmental protection	IPX8 Air On	IPX8 Air On	IPX8 Air on or off	
MicroHole™	Yes	Yes	Yes	
PassiveSeal™	No	No	Yes	
Interface	NCi-4	NCi-4	NCi-4	
Supply voltage (current)	12V (300mA) to 24V (130mA)	12V (120mA) to 24V (70mA)	12V (120mA) to 24V (70mA)	
Outputs	2 voltage free solid state relays (SSR) plus auxiliary relay	2 voltage free solid state relays (SSR) plus auxiliary relay	2 voltage free solid state relays (SSR) plus auxiliary relay	
M-code requirements	L & D tool setting - 0 High speed broken tool detection - 1 Latch - 1	L & D tool setting - 0 High speed broken tool detection - 1 Latch - 1	L & D tool setting - 0 High speed broken tool detection - 1 Latch - 1	
Standard Renishaw software	Yes	Yes	Yes	
Notes:				
*** Performance figures based on F95 compact fixed system				
**** Other separations available upon request				