



# Digital Probes

A wide range of digital gauging probes





In a world where everything has become digital, the digital probes bring important improvements with regards to the existing technologies. The digital probe consists of the probe itself and of its electronic head.

The digital probes have the same dimensions as the conventional probes and can be installed with similar mounting arrangements.

The electronic head houses the circuits that ensures the digital conversion of the signal as well as the communication management with the M-bus network. A «T» connector allows the probes juxtaposition.

Available in 4 measurement ranges, the digital probes are equipped with a M-bus network interface compatible with our display units.



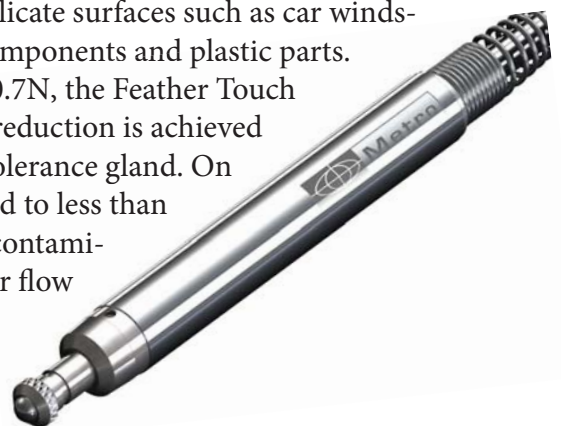
### *Spring Push or Pneumatic actuation*

In a conventional 'pencil' probe the tip pushes outwards under the influence of an internal spring. When installed in a fixture it is frequently required to design a mechanism to bring the probe into contact with the piece part being gauged.

In contrast, pneumatic operation allows the number of moving parts in a fixture to be reduced, resulting in improved reliability and reduced fixture costs. It also enables fast and safe automatic loading of components into a gauge when required.

### *Feather Touch Probes*

Feather Touch probes have been designed especially to gauge delicate surfaces such as car windcreens, TV tubes, pharmaceutical bottles, electro-mechanical components and plastic parts. Whereas a traditional probe exerts a tip force of approximately 0.7N, the Feather Touch exerts a mere 0.18N when used in the horizontal position. This reduction is achieved by replacing the naturally elastic traditional gaiter with a close tolerance gland. On pneumatic versions the air leakage through the gland is restricted to less than 2.5 millilitres per second at 1 bar to minimise the possibility of contamination to the surface being gauged. Despite the low volume of air flow the bearing within the probe is constantly purged, avoiding the build up of dust (use of filtered air is recommended).



### *Environmental protection*

Our probes are all fitted with Viton® gaiters to exclude moisture and dust.

Viton® is chemically inert and does not degrade when subjected to cutting fluids.

Probes with the Feather Touch option have glands instead of gaiters, and therefore should only be used in a dry environment.

All gauging transducer cables feature a 2m polyurethane (PUR) sheath with a foil screen layer for better electrical screening. Improved mechanical properties include reduced 'memory' effect and superior resistance to scuffs and cuts.

## Spring Push



Product type	DP1S	DP2S DT2S	DP5S DT5S	DP10S DT10S	DP20S DT20S
Measurement range (mm)	1	2	5	10	20
Pre-travel (mm)	0.15	0.15	0.15	0.15	0.15
Post- travel (mm)	0.35	0.35	0.85	0.85	0.85
Resolution (µm)	0.01	0.01	0.02	0.04	0.08
Accuracy (% of reading)	0.1	0.1	0.1	0.1	0.1
Tip force (N) : Standard	0.7	0.7	0.7	0.7	0.7
Tip force (N) : Feather touch (T suffix)	-	0.3	0.3	0.3	0.3
Operating Temp. °C	+5 +80	+5 +80	+5 +80	+5 +80	+5 +80
Gaiter	Viton ®	Viton ®	Viton ®	Viton ®	Viton ®
Cable	2m PUR	2m PUR	2m PUR	2m PUR	2m PUR
Body diameter	8h6	8h6	8h6	8h6	8h6
IP rating	IP65	IP65	IP65	IP65	IP65
Standard product ref	81001	81002	81003	81010	81020
Feather touch product ref (T suffix)	-	81022	81023	81024	81025

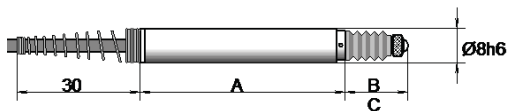
## Pneumatic



Product type	DP2P DT2P	DP5P DT5P	DP10P DT10T	DP20P DT20T
Measurement range (mm)	2	5	10	20
Pre-travel (mm)	0.15	0.15	0.15	0.15
Post- travel (mm)	0.35	0.85	0.85	0.85
Resolution (µm)	0.01	0.02	0.04	0.08
Accuracy (% of reading)	0.3%	0.3%	0.3%	0.3%
Tip force (N@0,4 / 1bar)	0.1	0.1	0.1	0.1
Operating Temp. °C	+5 +80	+5 +80	+5 +80	+5 +80
Gaiter	Viton ®	Viton ®	Viton ®	Viton ®
Cable	2m PUR	2m PUR	2m PUR	2m PUR
Body diameter	8h6	8h6	8h6	8h6
IP rating	IP65	IP65	IP65	IP65
Standard product ref	81102	81105	81110	81120

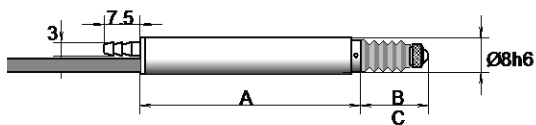
## Mechanical dimensions

### Standard Spring push



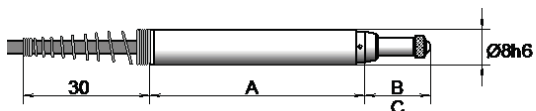
	DP2S	DP4S	DP10S	DP20S
A	46	57	91	133
B	11.4	11.4	14.4	21.4
C	13.4	17.4	25.4	42.4

### Standard Pneumatic



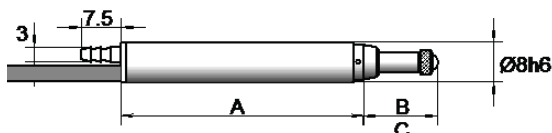
	DP2P	DP5P	DP10P	DP2PE	DP20P
A	55.5	77.5	102.5	102.5	136.5
B	10.9	11.4	14.4	14.4	21.5
C	13.9	17.4	25.4	25.4	42.5

### Feather touch / spring push

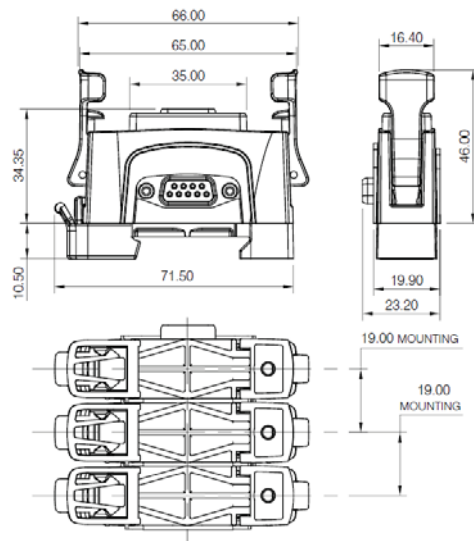
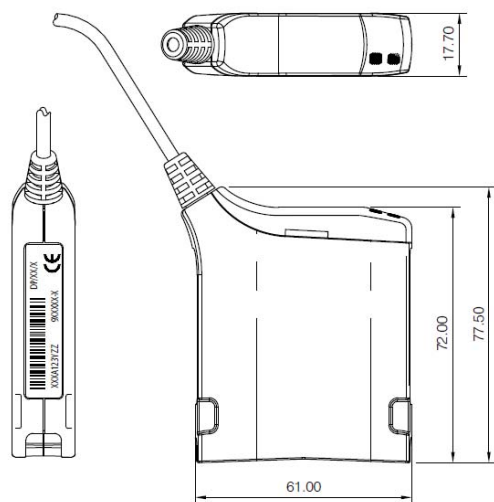


	DT2S	DT5S	DT10S	DT20S
A	46	68	91	134
B	11.4	11.4	14.4	12.9
C	13.9	17.4	25.4	33.9

### Feather touch / pneumatic



	DT2P	DT5P	DT10P	DT20P
A	55.5	77.5	102.5	136.5
B	10.9	11.4	14.4	21.5
C	13.9	17.4	25.4	42.5



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