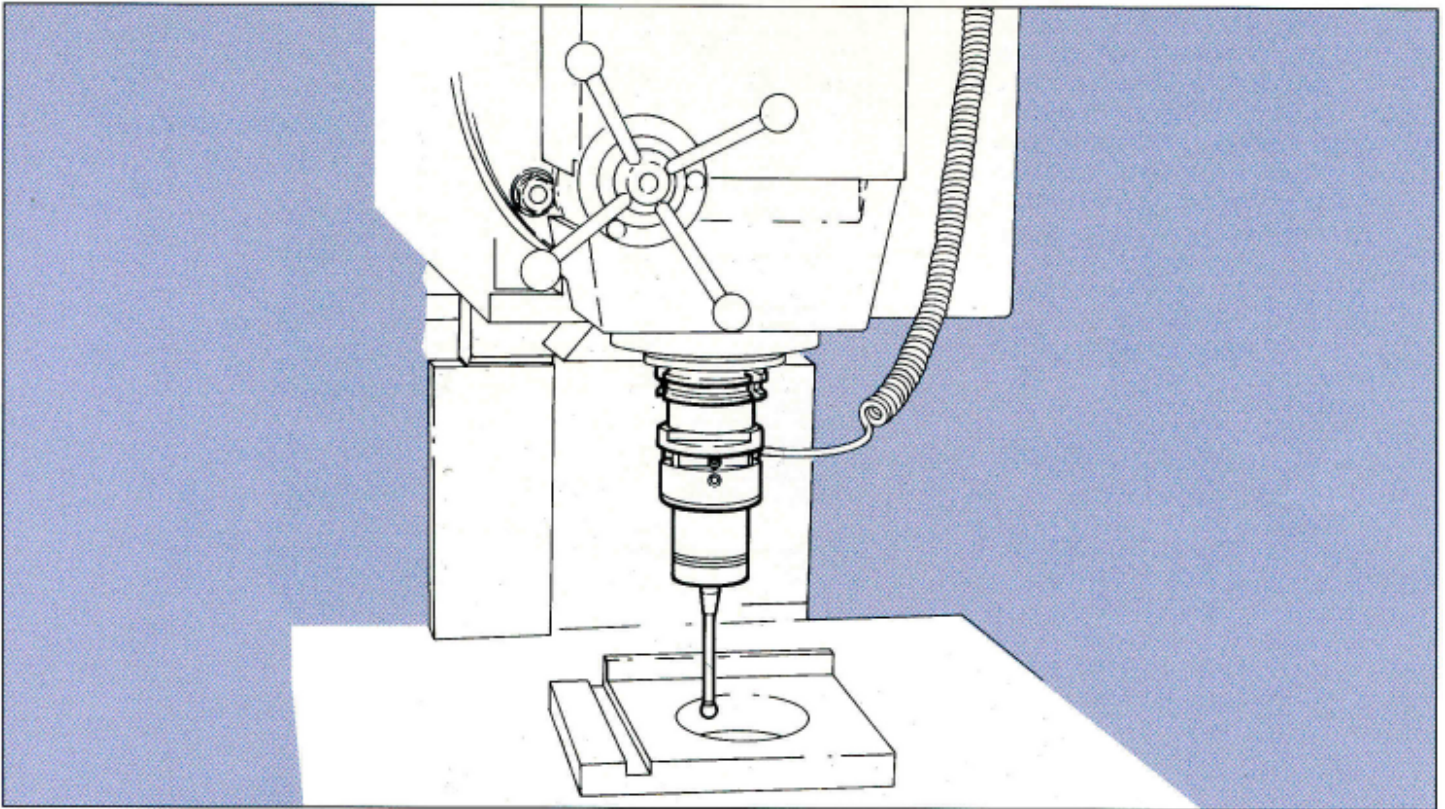


## E88

### TOUCH SYSTEM



E88 Touch System is the MARPOSS solution for part inspection on NC machines with manual tool change. It can be used for:

- workpiece zero point determination
- workpiece coordinates alignment
- workpiece dimensional measurements

The system can be directly connected to any machine CNC thanks to the interface integrated in the probe holder.

The system can be supplied mounted on the most used taper shanks and can be aligned with the spindle axis by an optional adjusting plate.

A led showing the probe status facilitates the use of the probe by the operator.

The connecting curly cable allows a wide range of movements to the system in the machining area.

The modularity of E88 system permits the use of different Mida probes and guarantees a proper versatility of application.



## SYSTEM CONFIGURATIONS

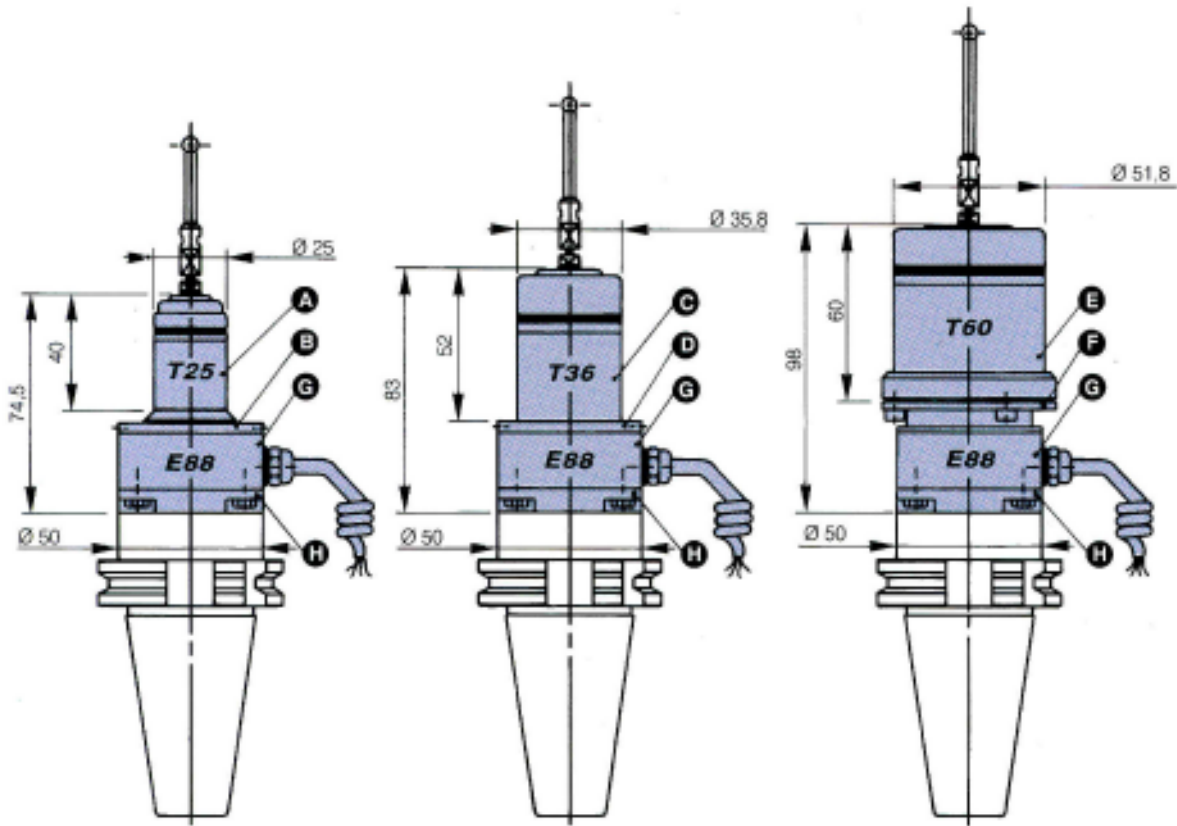


Fig.1

The different configurations (fig. 1) consist of:

**A.** T25G probe code 3415335031 / TL25G probe code 424306010 **B.** Adapter for T25/TL25 code 2019923021 **C.** T36G probe code 3415340050 **D.** Adapter for T36 code 2019923022 **E.** T60G probe code 3415345030 **F.** Adapter for T60 code 2019923023 **G.** E88 probe holder code 6871880000 **H.** Fixing plate code 2019923025 (\*).

(\*) As alternative the system can be supplied with the adjusting plate code 2919923002. In such case the system will be 7mm longer.

The system ordering codes are the following:

	with T25 probe	with TL25 probe	with T36 probe	with T60 probe
with fixing plate	<b>3M2000050</b>	<b>3M2800050</b>	<b>3M22000380</b>	<b>3M24000600</b>
with adjusting plate	<b>3M2000051</b>	<b>3M2800051</b>	<b>3M22000381</b>	<b>3M24000601</b>

The range of available fingers is described in the specific catalogue.  
Taper shanks and connectors can be supplied as option.

OPTIONS

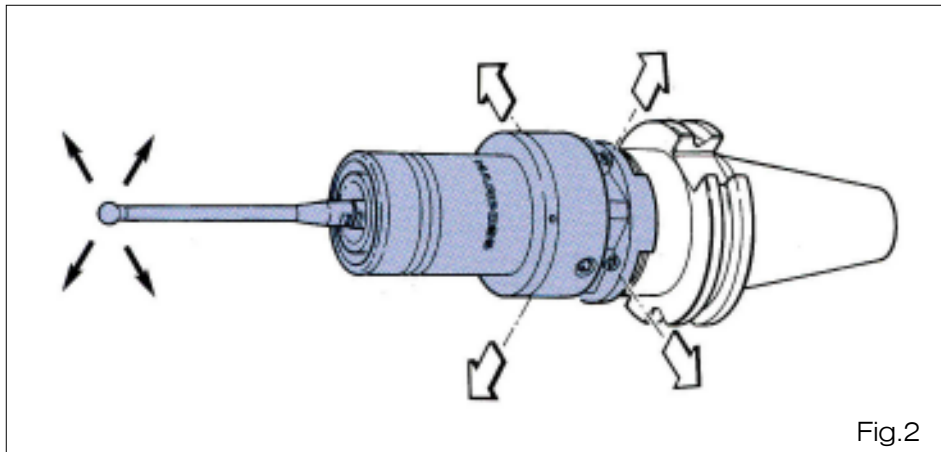


Fig.2

**Adjusting plate**

The plate code **2919923002** center with the spindle axis (fig. 2). Alignment is achieved by means of four adjusting screws located on the plate faces.

Then the system is locked to the shank. Any slight inaccuracy in the alignment can be compensated for by performing the calibration procedure in the machine.

**Taper shanks**

E88 Touch System can be fastened to shanks by two M4 fixing screws as shown beside (fig. 3):

- with adjusting plate (A)
- with fixing plate (B)

As alternative E88 Touch System can be supplied mounted on a taper shank, available in different types (BT, CAT, DIN 69871/A) and sizes (30, 35, 40, 45, 50).

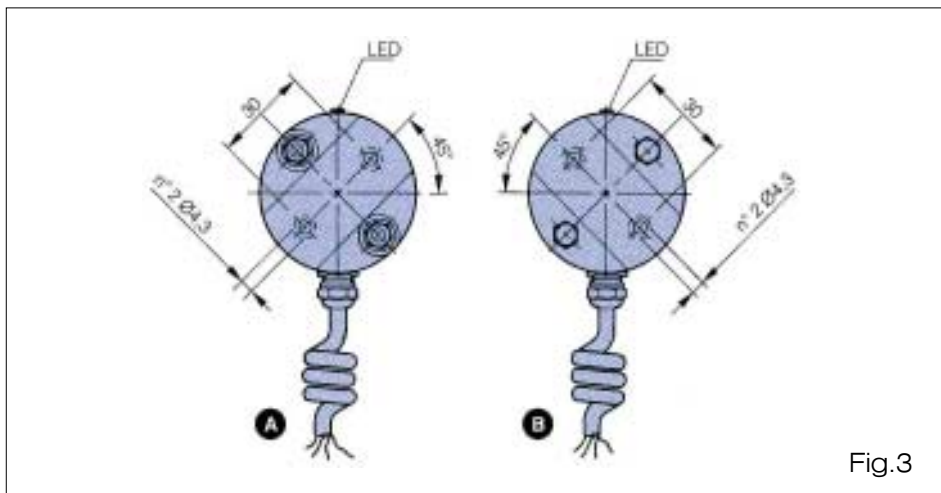


Fig.3

**Connectors**

P67 connectors allow the quick connection of the system to the CNC and assure the needed watertightness (fig. 4).

The male connector code **4140Q06100** has to be wired to the curly cable following the suggested table.

The female one code **4140Q06200** should be mounted in a clean area. A protective cover code **4140Q00003** can protect the female connector from coolant and chips when the male one is removed.

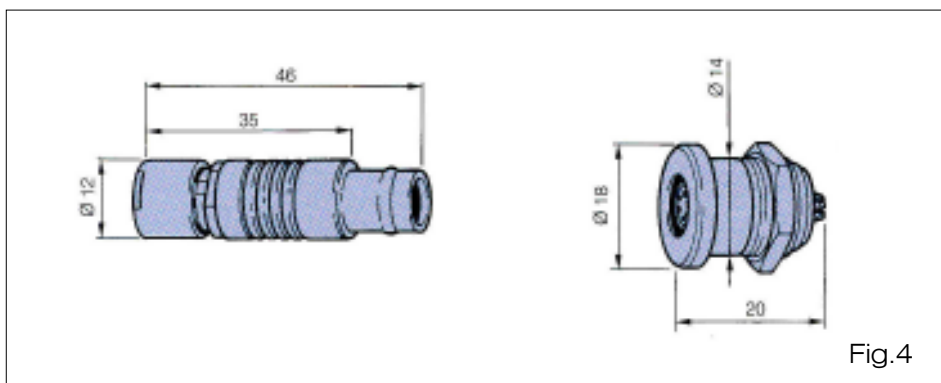


Fig.4

## MECHANICAL FEATURES

E88 system probe	T25	TL25	T36	T60
Probe axes	$\pm X, \pm Y, +Z$	$\pm X, \pm Y, +Z$	$\pm X, \pm Y, +Z$	$\pm X, \pm Y, +Z$
Probe unidirectional repeatability (2 sigma) <i>at speed up to 600 mm/min</i>	1 $\mu\text{m}$	1 $\mu\text{m}$	1 $\mu\text{m}$	1 $\mu\text{m}$
Measuring force on X,Y plane	200 gf	90 gf	260 gf	280 gf
Measuring force in Z direction	1200 gf	550 gf	1200 gf	1200 gf
Overtravel on X,Y plane	11,2 mm	11,2 mm	14,4 mm	22 mm
Overtravel in Z direction	4 mm	4 mm	4,2 mm	6,4 mm
Above characteristics refer to a stylus length of	35 mm	35 mm	40 mm	50 mm
Watertightness (IEC Standards)	IP67	IP67	IP67	IP67
System weight	560 g	560 g	670 g	940 g

## ELECTRICAL FEATURES

Power supply voltage: 24 VDC not stabilized (18 to 30 V max)

Power input: 30 mA max

Fuses: 62,5 mA (2 pcs.)

Probe status output:

Solid-state relays (SSR)

Max voltage  $\pm 50$  V peak, max current  $\pm 40$  mA peak

Probe status and power supply led:

Off: not powered system

Green: powered system and seated stylus

Orange: powered system and deflected stylus

Response time: 30  $\mu\text{s}$  max

Electrical connection: Curly cable (750mm long at rest condition, 2300mm max)

Connector wiring:

Probe output status is set (Normally Closed/Normally Open) by the power supply polarity.

For operator safety it is possible to wire a PROBE PLUGGED signal to ensure that the spindle rotation cannot take place when the E88 system is connected to CNC control.

WIRE	SIGNAL	
	N.C. Configuration	N.C. Configuration
YELLOW	PROBE PLUGGED (source)	PROBE PLUGGED (sink)
	24V	0V
RED	SSR	SSR
BLUE	SSR	SSR
GREEN	0V	24V
	PROBE PLUGGED (sink)	PROBE PLUGGED (source)

Shield is on connector housing



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