



# WRP45<sup>P</sup> WRP60<sup>P</sup>

*HIGH PRECISION TOUCH PROBE SYSTEM  
WITH RADIO TRANSMISSION*



# MARRPOSS

## Description of the system

WRP45P and WRP60P are Marposs touch probes for high accuracy 5 axes machining centers and milling machines which addresses industries where precision requirements are daily pushed to the limits like die and mold, aerospace, aeronautics and biomedical.

Through automatic detection of machine axes position, WRP45P and WRP60P achieves part positioning, work piece orientation and origins identification as well as accurate part measurement.

Based on piezo-electric technology, they reach excellent measurement performances on 3D surfaces.

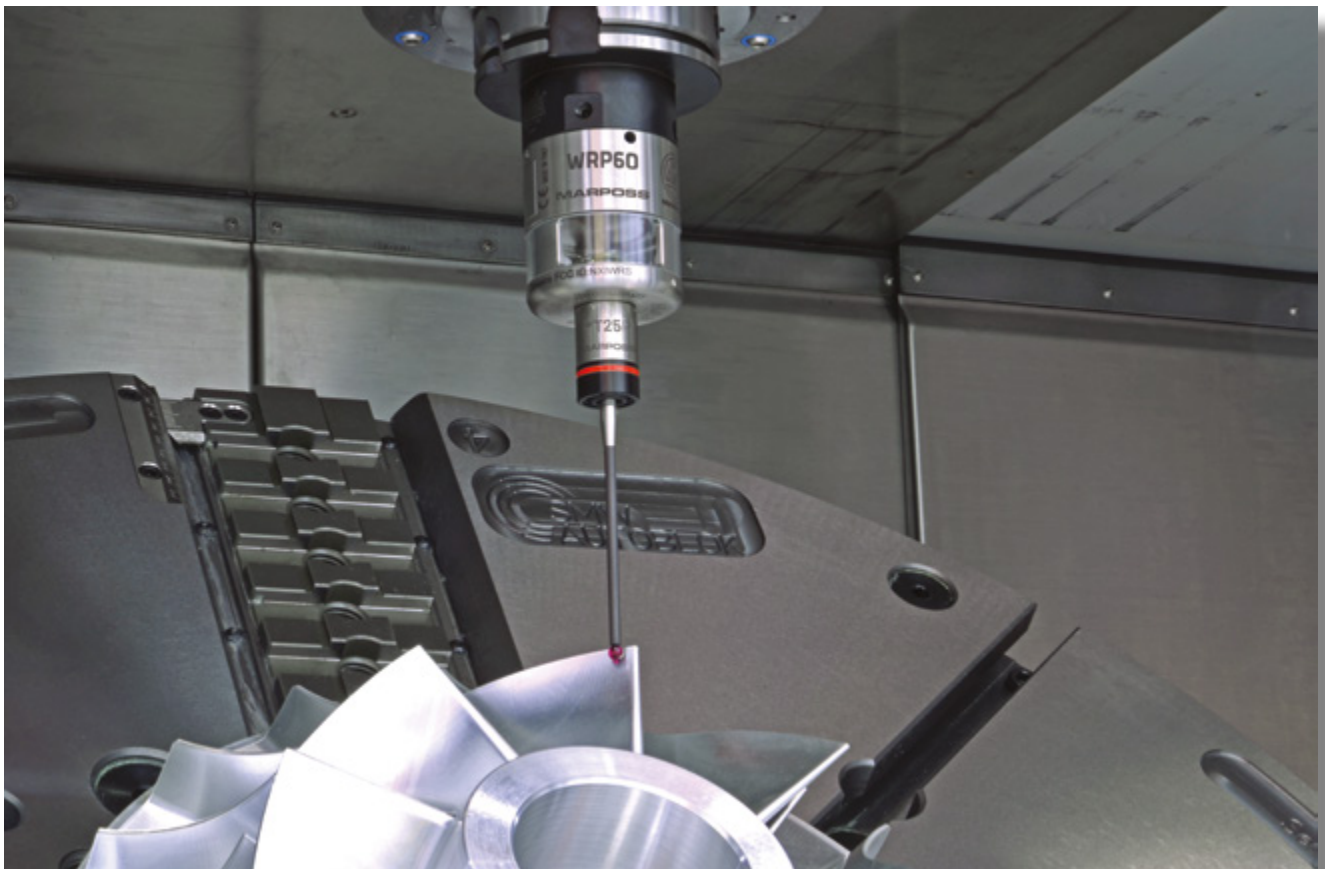
The two solution differ in dimensions and modular design of WRP60P able to be customized with extension up to 1 meter. The radio transmission system guarantees an incredible immunity to interference and a wide operating field useful for large machines where line of sight between probe and receiver is not ensured.

Several application are feasible:

- Multi-channel system: each application can support up to 4 probes.
- Multi-spindle application: it allows you to install two applications on the same machine by enabling 2 probes that can be used simultaneously.
- Twin applications: it allows you to check the part and the tool using the same receiver.
- Up to 316 applications in the same plant.

## Advantages

- Improved production quality;
- Increased Productivity;
- High accuracy that means sensitive scrap reduction;
- Incredible measurement performances on complex and sculptured surface too;
- High speed probing for a further cycle time reduction;
- Modular design customizable with extension up to 1 meter length;
- High immunity to interferences;
- Great battery life.

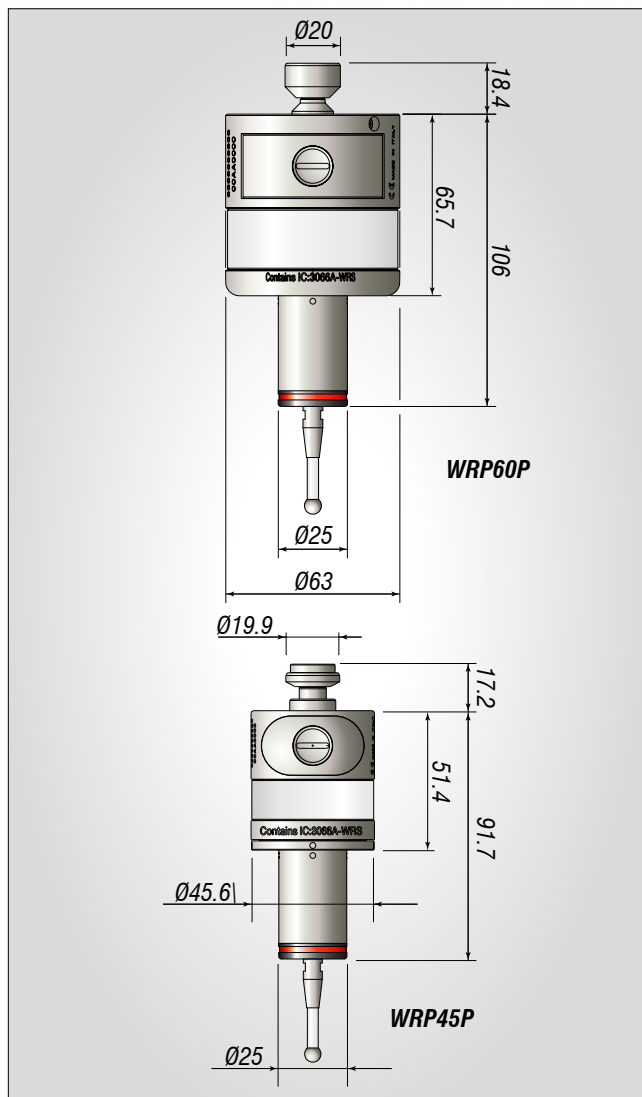


## WRP45P - WRP60P high accuracy touch probe

WRP45P is designed for use on small and medium size 5 axes machining centers and milling machines.

WRP60P is designed for use on large size 5 axes machining centers and milling machines. Furthermore, thanks to its modular design, it allows deep parts inspections.

The probes operate with the WRI receiver.



	WRP45P	WRP60P	
UNIDIRECTIONAL REPEATABILITY (2 $\sigma$ ) With standard 35 mm finger at a speed of 600 mm/min	0,25 $\mu$ m		
LOBING 2D in XY*	$\pm 0,25$ $\mu$ m		
LOBING 3D in XY*	$\pm 1$ $\mu$ m		
MEASUREMENT FORCE*	0,07 N (XY plane / Z direct.)		
OVERTRAVEL *	12° (XY plane) 6 mm (Z direct.)		
TRANSMISSION TYPE	Multichannel radio		
TRANSMISSION ACTIVATION/ DEACTIVATION DISTANCE	15 m		
NUMBER OF AVAILABLE CHANNELS	79		
NUMBER OF SUB-CHANNELS	4		
TRANSMISSION ACTIVATION	Machine M code		
TRANSMISSION DEACTIVATION	Programmable timer Machine M code		
BATTERY TYPE	2 x CR2 lithium	2 x CR123 lithium	
BATTERY LIFE**	Stand-by	1 y	1,5 y
	5% usage	150 d	250 d
	Continuous usage	300 h	500 h
PROTECTION DEGREE (Standard IEC 60529)	IP67		
WORKING TEMPERATURE	0 $\div$ 60 °C		

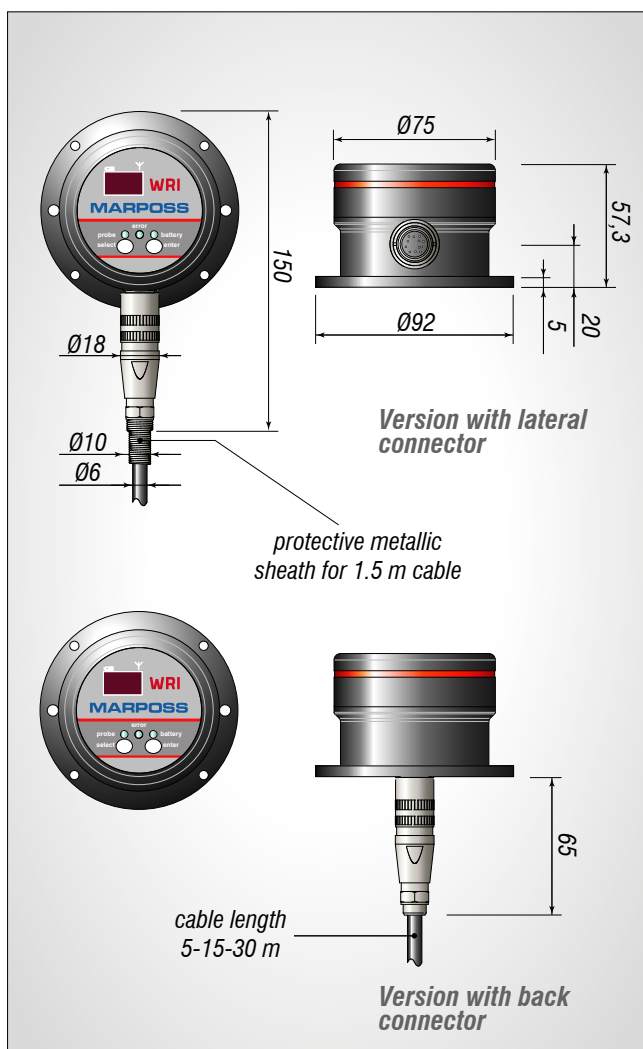
(\*) = Using standard 35 mm stylus

(\*\*) = Typical performances which may vary on programming modes basis

## Receiver with integrated interface (WRI)

The receiver with integrated interface WRI is supplied with an practical, 4-digit display that, together with the remote control unit, make it easy to program and to adjust in the event of a malfunction.

The receiver is secured using 4 x M4 screws; however it is also equipped with a magnetic mounting base, which makes it easier to install and position. The WRI receiver may also be positioned outside the machine.



POWER SUPPLY	13.5 - 30 Vdc max current 100 mA Power consumption 1 W	
INPUT SIGNALS (SINK or SOURCE)	Opto-isolated 13.5 - 30 V 1 mA at 15 V	START/STOP SEL 0 and SEL 1
OUTPUT SIGNALS (may be set to N.C. or N.O. with the exception of the error, which is always set to N.C.)	Solid state relay (SSR) 4 - 30 V 40 mA	PROBE 1 STATE/PULSE PROBE 2 STATE/PULSE BATTERY DISCHARGED ERROR
MIN. DISTANCE BETWEEN ADJACENT SYSTEMS	between two transmitters	0,5 m
	between a receiver from one system and a transmitter from another system	0,5 m
PROTECTION DEGREE (Standard IEC 60529)	IP68	

### System part numbers

Probe kit

P1SRWP0001	WRP45P kit
P1SRWP0031	WRP60P kit

All VOP kits are supplied complete with batteries and the necessary tools  
For fingers, shear pins and other accessories consult catalogue D6C006010

Receiver with integrated interface (WRI) kit

P1SRW60000	WRI kit with lateral connector
P1SRW60001	WRI kit with rear connector

Kits are supplied complete with batteries and operator and instruction manual  
Only VOI kits with lateral connector include the 1.5 m cable protective sheath.

6180890104	5 m CN connector cable
6180890112	10 m CN connector cable
6180890103	15 m CN connector cable
6180890105	30 m CN connector cable
6134232000	Receiver support

For further accessories codes consult WRS catalogue D6C0560010



[www.marpoSS.com](http://www.marpoSS.com)

For a full list of address locations, please consult the MarpoSS official website

D6C09300G0 - Edition 03/2021 - Specifications are subject to modifications  
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