

## General

Properties expressed in numerical values with statement of tolerances are guaranteed.

Numerical values without tolerances are intended for information purpose only and indicate the properties of an average instrument. The numerical values hold good for the nominal line voltage.

## Electrical

### Timing parameters

Repetition rate:	20 ns ... 1 s (1 Hz ... 50 MHz).
Pulse delay:	10 ns ... 100 ms
Pulse duration:	10 ns ... 100 ms.
Jitter:	< 0.1% of setting $\pm$ 50 ps.
Transition times corresponding to 10-90% of pulse amplitude, at 5 V and lower positions of the attenuator with 50 $\Omega$ external termination:	
PM 5712:	4 ns fixed.
PM 5715:	6 ns ... 500 ms.

### Internal operating modes

T/2	50% duty cycle, 50 $\pm$ 20% in 20 ns and 100 ns repetition ranges.
Single or double:	Delay and pulse duration are set by front panel controls.
Single shot:	By means of push-button.

### External operating modes

Trigg:	Externally triggered; internally generated pulse(s).
Gate:	Externally gated; internally generated waveform initiated by the active-off external input signal.
Pulse shaping, T/2:	Gives pulses with the same period and duration as the external input signal, all other parameters as set on the generator.

### External input

Trigger level:	> +1 V.
Trigger slope:	Positive.
Max. input voltage without damage:	+12 V.
Frequency range	DC ... 50 MHz.
Impedance:	Approx. 220 $\Omega$ at < 1.5 V, approx. 800 $\Omega$ at > 1.5 V.

### Main pulse output

Amplitude:	0.2 V ... 10 V into 50 $\Omega$ .
Polarity PM 5715:	+ or - switchable.
Polarity PM 5712:	+ only. Pulses within -5 V ... +10 V possible using DC-offset and normal / inverted.
Source impedance:	10 V: current source (max 200 mA) 5 V, 1.5 V and 0.5 V: internally terminated with 50 $\Omega$ .
Waveform aberration	< $\pm$ 5% of set amplitude.
Protection:	Short and open circuit proof.
DC-offset PM 5712:	+2 V ... -5 V into 50 $\Omega$ , pulse amplitude plus DC-offset max +10 V.
PM 5715:	+2.5 V ... -2.5 V into 50 $\Omega$ . Pulse amplitude plus DC-offset max $\pm$ 10 V.
Logic mode:	Normal or inverted.

### Synchronization output

Internal modes: square wave, amplitude +1.5 V into 50  $\Omega$  (+3 V open circuit). Source impedance 50  $\Omega$ . The pulse occurs approximately 40 ns ahead of the main pulse with pulse delay set to 10 ns.

External mode: pulse duration determined by external pulses or the single shot push button. The pulse occurs about 10 ns after the external pulse.

### Auxiliary output

Amplitude +2.5 V into 50  $\Omega$  (+4.5 V open circuit). Source impedance 50  $\Omega$ . The pulse occurs approx. 12 ns ahead of main pulse. Pulse delay and duration are set with the front panel controls in all operation modes. Provides single pulse or double pulse but not T/2 or inverted pulse.

### Line supply

Line voltage:	100 V ... 130 V and 200 ... 260 V, switchable. 85 V ... 115 V and 170 V ... 230 V, solderable.
Line frequency:	50 Hz ... 400 Hz.
Power consumption:	70 VA.

### Temperature range

Operating:	0 ... +40°C.
Storage:	0 ... +70°C.

## Dimensions

Depth:	275 mm.
Width:	210 mm.
Height:	130 mm.
Weight	4 kg.

## Accessories

### Standard accessories

(Supplied with the instrument)

- 1 Operators' manual.
- 1 Line cord.
- 1 Fuse 400 mA, delayed action.
- 1 Fuse 800 mA, delayed action.

### Optional accessories

(To be ordered separately)

Service manual	9499 465 01111	
Termination, 50 $\Omega$ , 3 W		PM 9581
Termination, 50 $\Omega$ , 1 W		PM 9585
Mixing piece, 50 $\Omega$ ,		PM 9584
Coaxial cable set, 50 $\Omega$		PM 9588*)

\*) contains following cables, type RG58A/U with BNC connectors:

	Delay	Length mm
5 pc	1 ns	200
4 pc	2 ns	400
3 pc	3 ns	600
3 pc	10 ns	1980