

## Eton PRS 165.3 – three ways but still affordable

► Many cars have factory mounting holes for 3-way systems but it is rare that one can find a suitable retrofit set for an affordable price. That is why Eton presents its PRS 165.3.

Three way systems awake the desire of many HiFi enthusiasts and they have good reason for that. Thanks to a dedicated mid-range driver, the musically most important frequencies come out the same speaker and the crossover frequencies of the midrange are not located in the most sensitive hearing range. When speaking about the sound, this can be an advantage even if three ways require more tuning work than two. But 3-way systems are also nowadays very popular for very pragmatic reasons. More and more cars come with a factory 3-way front system, so that retrofitting a 2-way-systems will always hurt a bit. No one likes to throw away sound quality. Furthermore, the woofers are often not optimally placed so that, when speaking about the sound, it is quite useful to rise up as much of the music as possible with the midrange driver. The great disadvantage of three ways system is mostly the price. It is only logical that six speakers are more expensive than four if you don't want to compromise regarding quality. Crossovers are also more complicated with three ways when all has to go passive. Therefore a healthy whiff of suspicion is necessary regarding very cheap three way systems in the market. You go often better a good 2-way than with an only modest 3-way system. Regarding our Eton PRS 165.3, no one has to be concerned about the quality because the company's speakers have an impeccable reputation and Eton is well known for it's high quality speakers which they manufacture in their own house

# Fair Offer

Midrange driver and woofer are neatly finished and look incredibly pretty. The very good ventilation is a great advantage of the metal frames





The small box crosses the midrange driver and the tweeter, the amplifier's crossovers will do the rest

in Neu-Ulm. This is also the case of the less expensive series like the POW sets, regularly obtaining very good marks in our previous tests. So no wonder also our current PRS speakers make a very good impression. The make is flawless and the materials are without doubt high-class. Cones, surrounds and spiders are normally supplied by DKM, a specialist from Krefeld, who are also known for the quality of their products. The 6.5" woofer has a solid powdered metal frame with a set of small venting holes underneath the spider. More holes can be found in the aluminum former and, finally, there is a vented pole piece. The cone consists of a mesh of glass fibre sealed with resin. Also the midrange driver has a metal frame, ferrite magnet and a 1" voice coil. But this time, the cone as well as the dust cap, are made of coated paper. With an 80 mm frame, the midrange driver belongs to the three inch class; so to day, there is no problem matching it with a 19 mm tweeter. That is exactly what Eton does and adds an easy to install fabric dome tweeter to the PRS ensemble. The crossover is exclusively responsible for the crossing between of midrange and tweeter, which saves costs for expensive components. On the other hand, four amplifier channels along with active crossovers are required to power the PRS165.3. Since nowadays the market offers a vast range of small amplifiers for little money, this should not be a problem and the partially active setup is anyway very recommendable regarding best possible performance.

### Measurements and sound

Let's go to the lab where the midrange driver PRW 80 turns out to be an old friend which already got a very good result in no. 1/2016 in our lab test. It shows a sweet-tempered frequency response without disturbing resonance peaks and, including the crossover, provides 83 dB at 2 volt. The bass-midrange speaker is even 5 dB louder which can be perfectly enjoyed thanks to the partially active operation. The 6.5" works smoothly until over 5 kHz and has its rightful place in the PRS 165.2 2-way system. There is only very few and non-aggressive distortion so that our

affordable PRS manages to get a good rank inside our top class. Sound-wise, it belongs to the very pleasant and audiophile systems. The sound is perfectly balanced and no frequency range displeases even sensitive listeners. Accordingly good is the long-distance suitability of the PRS. And still, it never sounds drowsy or dull hence the PRS reproduces the voices of both men and women with vim and even dynamic peaks are reproduced. There is a small minus point for the maximum level; other than that, the bass range convinces the listener with a pleasant mightyness and a proper depth. All in all, there are only very few shades and a lot of light. The PRS satisfies us with it's sound instead of desperatley going for cheap effects.

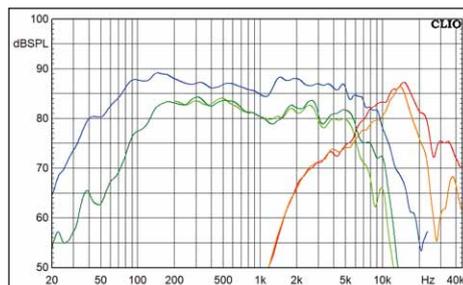
### Conclusion

With the price of 280 Euro, the PRS 165.3 belongs to the cheapest three ways systems. For a speaker set made in Germany and considering the fact that the pair of midrange drivers themselves are sold for over 100 Euro, the total price seems to be a fair offer.

*Elmar Michels*



Ideally suited for a 3-way setup, the tiny 19 mm dome tweeter is a true high range specialist in PRS



Relatively high crossover frequency between the midrange and the tweeter which makes the midrange driver the crux of the system. The woofer is comfortably loud and can be also used for 2 way systems.

### Eton PRS 165.3

Distributor	Eton, Neu-Ulm
Hotline	0731 70785-20
Internet	www.etongmbh.de

▶ Sound	55 %	1,2	■■■■■
Bass foundation	11 %	1,5	■■■■■
Neutrality	11 %	1,0	■■■■■
Transparency	11 %	1,5	■■■■■
Soundstage	11 %	1,0	■■■■■
Dynamics	11 %	1,0	■■■■■
▶ Lab	30 %	1,3	■■■■■
Frequency response	10 %	1,0	■■■■■
Max. SPL	10 %	1,5	■■■■■
Distortion	10 %	1,5	■■■■■
▶ Practice	15 %	1,8	■■■■■
Crossover	10 %	2,0	■■■■■
Workmanship	5 %	1,5	■■■■■

### Specifications

Basket diameter	166 mm
Mounting diameter	142 mm
Mounting depth	65 mm
Magnet diameter	72 mm
Basket diameter midrange	96 mm
Mounting depth midrange	39 mm
Dome diameter tweeterT	19 mm
Housing diameter tweeter	38 mm
Crossover slope wf/tw	-/12 dB
Crossover slope mid HP/L	-/6, 12 dB
Tweeter protection	-
Tweeter attenuation	-/0, +3 dB
Grilles	•
Misc.	-

Nominal impedance	4 Ohm
DC resistance Rdc	3,15 Ohm
Voice coil inductance Le	0,31 mH
Voice coil diameter	25 mm
Cone area Sd	135 cm <sup>2</sup>
Free air resonance fs	60 Hz
Mechanical Q Qms	4,00
Electrical Q Qes	0,82
Total Q Qts	0,68
Volume of suspension Vas	15,9 l
Moving mass Mms	11,3 g
Mechanical resistance Rms	1,06 kg/s
Compliance Cms	0,63 mm/N
B*l	4,03 Tm
SPL 2 V, 1 m	90 dB
Amplifier power recommendation	30 - 120 W

### Rating

Price			280 Euro
Sound	55 %	1,2	■■■■■
Lab	30 %	1,3	■■■■■
Practice	15 %	1,8	■■■■■

### Eton PRS 165.3

**Absolute Top Class**  
**Top Class**  
 Upper Class  
 Middle Class  
 Lower Class

**1,3**

Price-Performance:  
 excellent

**CAR & HiFi**

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„Great system at an attractive price.“