

# DPA D:FACTO 4018 VOCAL MICROPHONE

by Ivan Ordenes

**Through my work at Channel 7 and with Jessica Mauboy, I get the opportunity to test a lot of microphones rigorously. I have a couple of well-known models and brands of mic capsules I use regularly with handheld transmitters, as does Jess.**

## Performance

The DPA d:facto 4018 first came to my attention when I was invited to a viewing party in Sydney of Chile's Festival de Viña del Mar, the biggest and oldest music festival in Latin America. It lasts six days, hosts globally famous acts, has a live audience of 15,000, and is broadcast to most of the world. That year, a famous Spanish artist, Isabel Pantoja, made her triumphant return to the stage, after a lengthy hiatus. She was backed by a full symphony orchestra, choir, flamenco band, and contemporary rock band instrumentation; she had everything at her disposal. It was an incredible show. She had 15,000 people in the palm of her hand, crying, weeping, and falling to their knees.



As I watched, I noticed she had 'unusual' mic technique; it was like she forgot she had a microphone! She was singing to the masses, arms waving in different directions, with one hand holding the mic. She was waving it like a torch! All I could think was "those poor sound engineers!" particularly the monitor engineer! Somehow, the engineers managed. It made me really pay attention to the mic she was using, as it was picking up her voice really well, despite the mic 'technique'. It was a Shure transmitter, but fitted with a DPA capsule. I emailed DPA to congratulate them on the mic, as the capsule was producing incredible results, considering the circumstances. I let them know that I thought they'd built something really cool, and a month later, DPA contacted me and allowed me into their Masters Club so I could road test their products. They also let me know the capsule in question was a d:facto 4018.

Another great example of the quality and power of the d:facto 4018 was at the Fire Fight Australia benefit concert in February 2020. It was a demanding show technically, overlaid on Queen's stage at ANZ Stadium in Sydney, with quick changeovers. I was mixing FOH for

Jessica Mauboy, who was keen to put on a spotless performance. We did rigorous pre-show prep, and went in ready.

Something I completely forgot about was the 50 metre catwalk in front of the PA. I saw it, I even walked on it before the show, but when it came to mixing Jessica's performance, I just didn't recall it existed. I was at FOH mixing, pushing up her vocal as I needed it, adding delay and reverb, just doing my thing, totally forgetting she was standing in front of the PA. I didn't even realise that it could have been an issue for me until I was up in the balcony with Jess after the performance. She was doing a TV interview while there was another artist on stage, who started having significant feedback issues as they walked onto the catwalk. I had record label execs asking me how I got Jess in front of the PA without feedback, and all I could say was that I had the right tool for the right job.

## Frequency Response and Character

The d:facto 4018 is a very transparent mic. The frequency plot shows it as almost totally flat with a slight boost at 10kHz, which is what you hear. What impresses me most

## ROAD TEST

is that the mic has an almost mystical ability to suppress unwanted noise or reflections in favour of the direct sound coming from a good singer. The capsule seems to have the ability to ignore quieter or reflected sound from other sources, which I believe is a characteristic of DPA's miniature membrane technology. I think that's the key, as the 4018 is a great quality condenser microphone that performs live as well as, if not better than, a dynamic mic in terms of feedback rejection. The DPA 4099 is the same – put it on a kick drum or a grand piano and they both sound great; I think it's all in the miniature membrane. DPA's mics have a unique ability to pinpoint what you need, reduce distortion, isolate the signal you want, and get rid of the noise you don't. As I understand it, DPA's membrane technology is descended from the famous analysis mic company, Brüel & Kjær. It's no coincidence that NASA is using DPA mics on the next Mars Rover.

### Handling Noise

The lack of handling noise in the 4018 is amazing, especially when you consider that the 4018 capsule is designed to be fitted on a range of handheld transmitters. That's like making racing tyres for different sports cars – if the vehicle doesn't handle right, what's the point of expensive tyres? DPA has manufactured a capsule that does not transmit handling noise from the transmitter. I can't perceive it, and I've mixed plenty of performers wearing rings and other jewellery, including Jess. In front of the massive Fire Fight PA, I didn't hear a thing.

### Wired Vs Wireless

I've used the 4018 wired version on mic stands for both lead and backing vocals. In fact, we did the Fire Fight rehearsal with a



wired 4018 before switching to wireless for the show. I can't hear any difference between the wired and wireless models.

### Build Quality

Out on the road, all of my DPA products have proven quite rugged, even the 4099s with their delicate gooseneck and fine cables. The DPA MicroDot connectors are very rugged. All of the d:facto capsules are very well built, and you can feel the difference in weight from other manufacturers capsules. DPA's manufacturing standards are high, and their products last.

### Conclusion

In cooking, when you use the same spice on your dishes for years and you suddenly change to a different type of salt, people notice immediately. The d:facto 4018 is a solid capsule and an incredible product. I find DPA have a humane and artistic approach to all of their work, in R&D, design, and business in general. Their refined approach translates exactly to the results you get from using their microphones on stage.

**Product Info:** [www.dpamicrophones.com/handheld/vocal-microphone](http://www.dpamicrophones.com/handheld/vocal-microphone)

**Distributor Australia:**  
[www.ambertech.com.au](http://www.ambertech.com.au)

**Distributor New Zealand:**  
[directimports.co.nz](http://directimports.co.nz)

## DPA d:facto 4018 – The Specs

Directional pattern: Supercardioid

Principle of operation: Pressure gradient

Cartridge type: Pre-polarised condenser

Frequency response: 20 Hz - 20 kHz

Effective frequency range  $\pm 2$  dB, at 12 cm: 40 Hz - 16 kHz with 3 dB soft boost at 12 kHz

Sensitivity, nominal,  $\pm 2$  dB at 1 kHz: 5 mV/Pa; -46 dB re. 1 V/Pa, 2 mV/Pa; -54 dB re. 1 V/Pa with Adapter for wireless

Equivalent noise level, A-weighted Typ.: 19 dB(A) re. 20  $\mu$ Pa (max. 21 dB(A))

Distortion, THD < 1%: 136 dB SPL RMS, 139 dB SPL peak

Dynamic range Typ.: 120 dB

Max. SPL, THD 10%: 160 dB SPL peak

Colour: Matte black

Weight: 309 gm

Ivan Ordenes has been a Music Audio Director at Channel 7's Sunrise and The Morning Show for over a decade. He also works regularly at FOH for Jessica Mauboy and owns and operates Sydney's Dubology Studios. For 25 years his career has been devoted to the business of audio, primarily in music production. Career highlights have included mixing monitors and broadcast at the Festival de Viña del Mar, Chile, broadcast mixing for Coldplay in Australia, and recording Simply Red's DVD Farewell - Live at the Opera House.

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