



VEGAPULS 6X
FCC: O6QPS6XW
IC: 3892A-PS6XW

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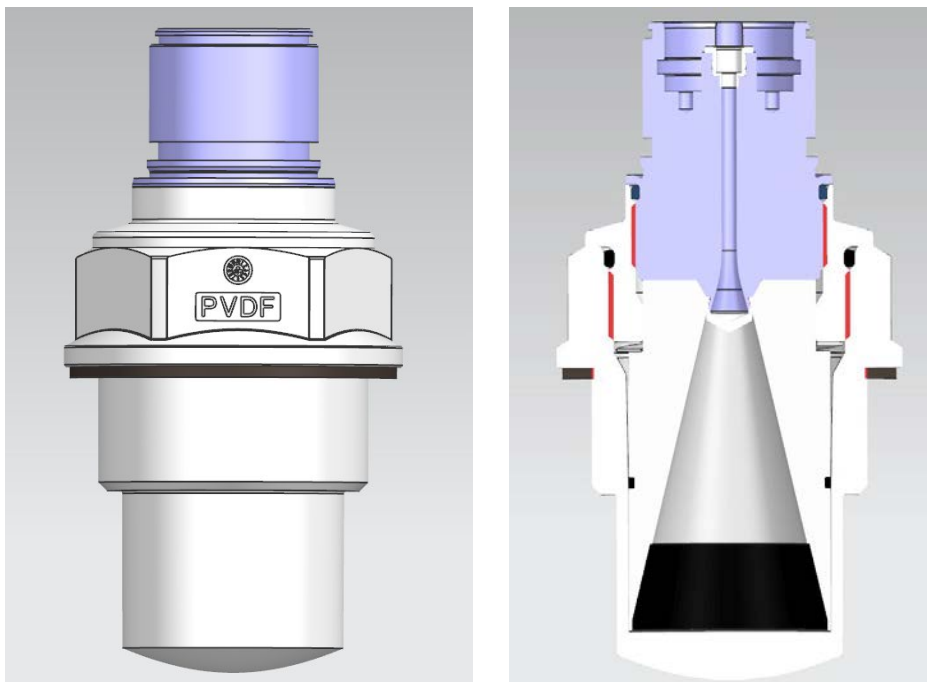
with PVDF threaded antenna

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1 PVDF threaded antenna

Version: 80 °C, without glass window, G 1 1/2" thread



Different Modes:

Country	Approved frequency	Used Frequency	Measuring range	material	bandwidth
Europe, USA, Canada, Belarus, Kazakhstan, Macedonia, Saudi Arabia, New Zealand, Australia, Ukraine, Serbia	75-85 GHz	76-84 GHz	≤ 30 m	liquid	8 GHz
		78,2-82,2 GHz	> 30 m – ≤ 60 m	liquid	4 GHz
		79-81 GHz	> 60 m – ≤ 120 m	liquid	2 GHz
		79-81 GHz	any	bulk	2 GHz
Brazil, Thailand, Taiwan, South Korea, Japan	77-81 GHz	77-81 GHz	> 0 m – ≤ 60 m	liquid	4 GHz
		79-81 GHz	> 60 m – ≤ 120 m	liquid	2 GHz
		79-81 GHz	any	bulk	2 GHz
China, India, Indonesia, Malaysia, South Africa	76-77 GHz	76-77 GHz	any	any	1 GHz
Russia	78-84 GHz	78,2-82,2 GHz	> 0 m – ≤ 60 m	liquid	4 GHz
		79-81 GHz	> 60 m – ≤ 120 m	liquid	2 GHz
		79-81 GHz	any	bulk	2 GHz

1.1 Electrical Data (at center frequency) for Europe and USA

Center frequency	80 GHz
Antenna gain	24,9 dBi
Bandwidth	± 4 GHz
HPBW (E-plane)	6,1°
HPBW (H-plane)	8,0°
Side lobe suppression (E-plane)	12,8 dB (1. Sideline at $\pm 10,5^\circ$)
Side lobe suppression (H-plane)	29,7 dB (1. Sideline at $\pm 17,0^\circ$)

1.1.1 Electrical Data for the complete bandwidth

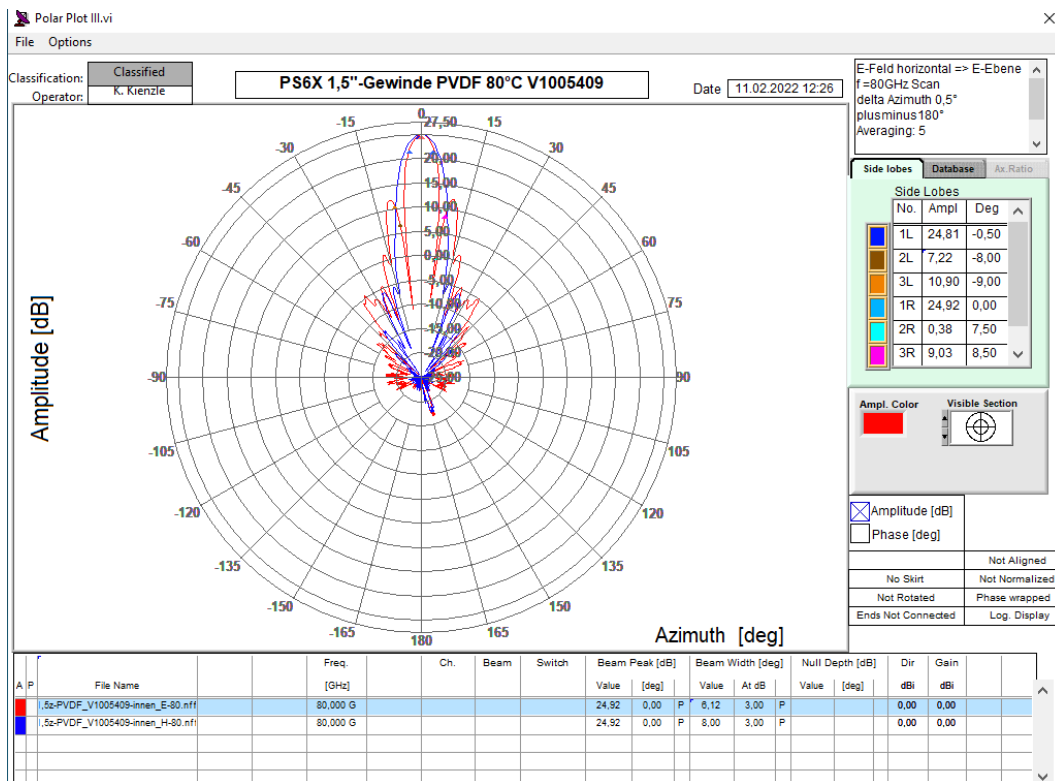
Return loss S11 (frequency band)	18,4 – 27,5dB
10 dB bandwidth	>15,9 GHz
15 dB bandwidth	>13,7 GHz
20 dB bandwidth	-
Impedance	50 Ω
Polarisation	linear

1.2 Mechanical Data

Antenna diameter	39 mm
Temperature range	-40...+80°C
Process pressure	-1...+ 3 bar
Wetted parts	PVDF
Electrical connection	Hollow Waveguide $\varnothing$ 2,6mm

1.4.1 Antenna Patterns at 80 GHz

a) Polar Diagram



b) Cartesian Diagram

