Omnidirectional Antennas
68 - 87.5 MHz

ORDER NUMBER	ANTENNA TYPE
WS 200 42 1.	omnidirectional
WS 200 44 1.	omnidirectional, heavy duty, with radome
WS 200 84 1.	omnidirectional groundplane
WS 200 86 1	omnidirectional groundplane, adjustable
WS 200 92 1	discone 66 - 1100 MHz
WS 201 12 10.	3 dB offset pattern antenna
WS 201 13 10.	3 dB offset pattern antenna, heavy duty, with radome
WS 201 12 19.	dipole for wall mounting
WS 201 13 19.	dipole for wall mounting, heavy duty, with radome
WS 201 12 11.	6 dB offset pattern antenna
WS 201 13 11.	6 dB offset pattern antenna, heavy duty, with radome
WS 201 12 12.	8 dB offset pattern antenna
WS 201 13 12.	8 dB offset pattern antenna, heavy duty, with radome
WS 201 13 21 .	omnidirectional, horizontal polarized

KW 3-08

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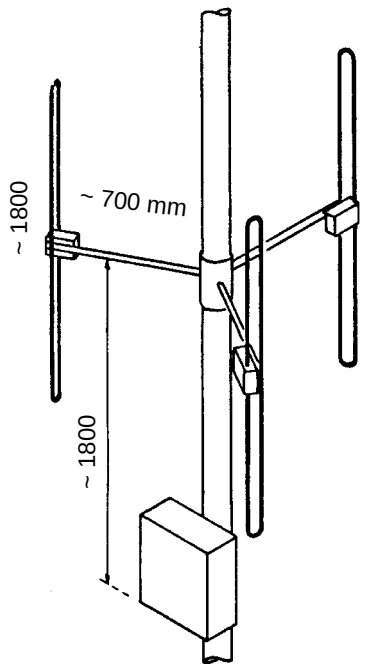
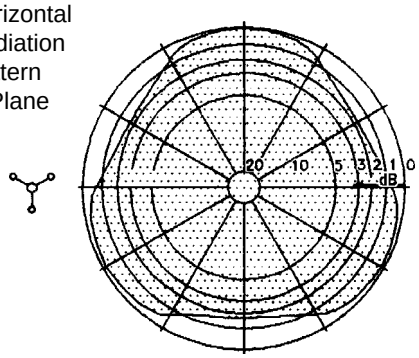
OMNIDIRECTIONAL ANTENNA
WS 200 42 1.
68 ... 88 MHz

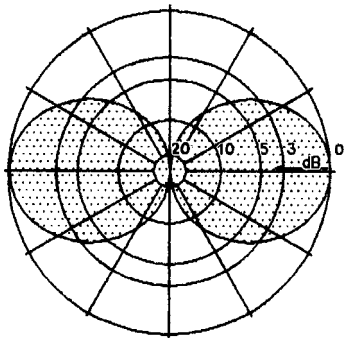


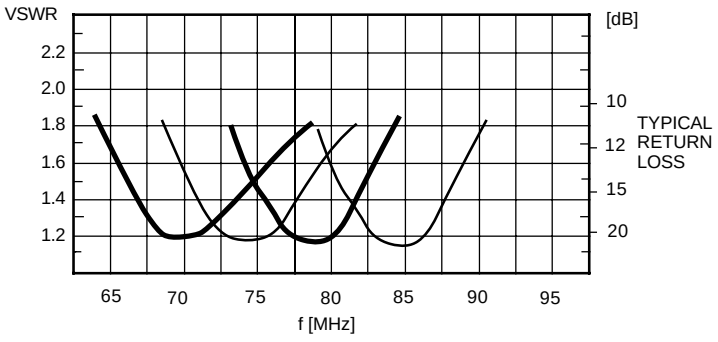
TYPE NO.	**WS 200 42 16: 68 - 72 MHz** **WS 200 42 17: 71 - 77 MHz** **WS 200 42 18: 76 - 82 MHz** **WS 200 42 19: 81 - 87.5 MHz** further frequencies on request
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 1.3, at the limits of the band <1.5
POWER	max. 300 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° (deviation from circularity ± 1.5 dB) vertical, E plane: 78°
TERMINATION	in the junction box WAK 1 ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	on mast with ø 60 ≤ 104 mm clamp for other mast-ø on request
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	7 kg
WIND AREA	0.27 m²
WIND LOAD	344 N (150 km/h) 260 N (130 km/h)

Horizontal Radiation Pattern H Plane



Vertical Radiation Pattern E Plane





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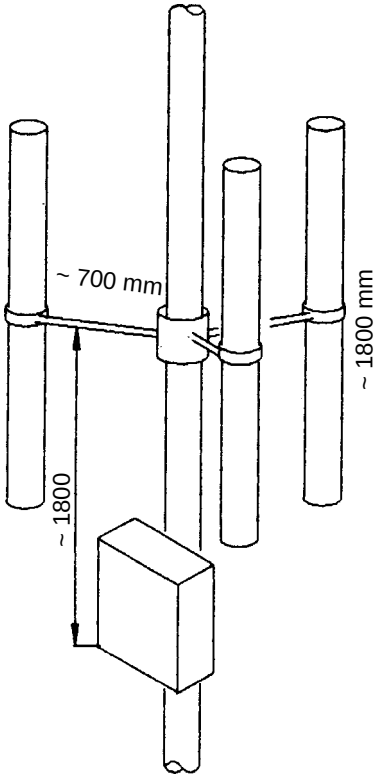
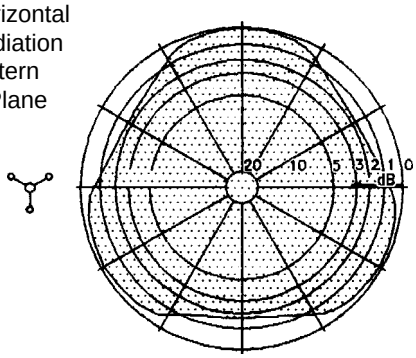
OMNIDIRECTIONAL ANTENNA
WS 200 44 1.
68 ... 88 MHz

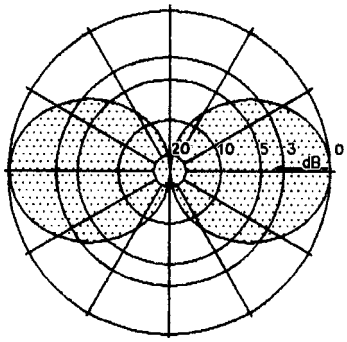


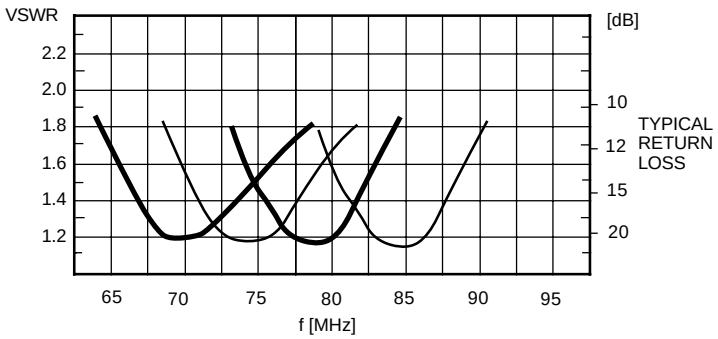
TYPE NO.	**WS 200 44 16: 68 - 72 MHz** **WS 200 44 17: 71 - 77 MHz** **WS 200 44 18: 76 - 82 MHz** **WS 200 44 19: 81 - 87.5 MHz** further frequencies on request
DESCRIPTION	heavy duty, with radome The radome protects the antenna dipole from environmental influences, icing, and increases the lightning protection.
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 1.3, at the limits of the band <1.5
POWER	max. 300 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° (deviation from circularity ± 1.5 dB) vertical, E plane: 78°
TERMINATION	in the junction box WAK 1 ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	on mast with ø 60 ≤ 104 mm clamp for other mast-ø on request
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized polyethylene
WEIGHT	17 kg
WIND AREA	0.54 m²
WIND LOAD	670 N (150 km/h) 520 N (130 km/h)

Horizontal Radiation Pattern H Plane



Vertical Radiation Pattern E Plane





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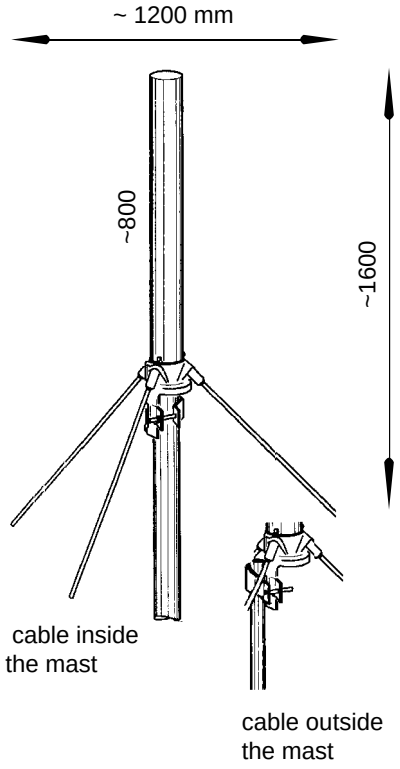
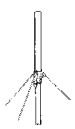
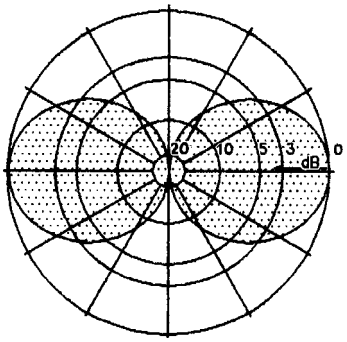
OMNIDIRECTIONAL ANTENNA
WS 200 84 1.
68 ... 87.5 MHz

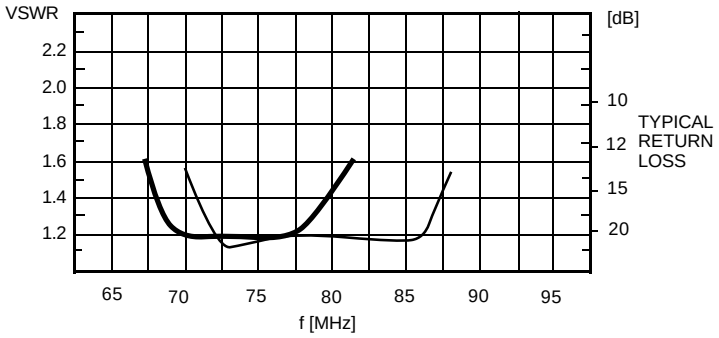


TYPE NO.	**WS 200 84 14: 68 - 80 MHz** **WS 200 84 15: 72 - 87.5 MHz** further frequencies on request
DESCRIPTION	antenna with radome The radome protects the antenna from environmental influences, icing, and increases the lightning protection.
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 1.3, at the limits of the band <1.5
POWER	max. 150 watts
3 dB BEAMWIDTH	horizontal, H plane: 360° vertical, E plane: 78°
TERMINATION	~ 1 m cable ending with N male the cable must NOT be shortened (transformer) other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	to 40 - 66 mm ø mast cable running inside or outside the mast
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized polyethylene
WEIGHT	2.2 kg
WIND AREA	0. 06 m^2
WIND LOAD	76 N (150 km/h) 57 N (130 km/h)

Vertical
Radiation
Pattern
E Plane







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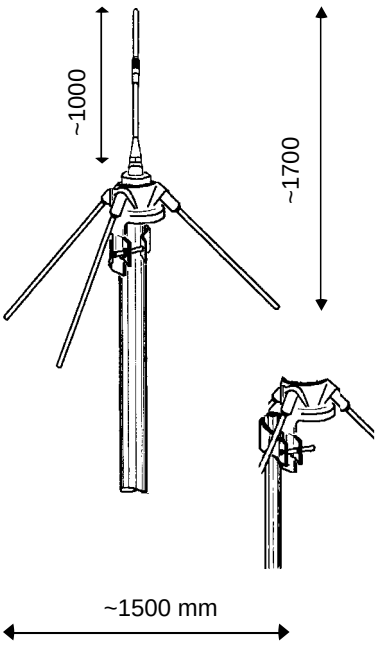
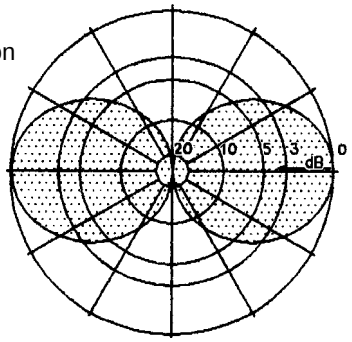
GROUND PLANE ANTENNA, ADJUSTABLE
WS 200 86 1
68 ... 87.5 MHz



TYPE NO.	**WS 200 86 1: 68 ... 87.5 MHz** other frequencies on request
DESCRIPTION	light ground plane antenna with adjustable radiator
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. to λ/2 dipole)
VSWR	< 1.2 on tuned frequency
POWER	200 watts
3 dB BEAMWIDTH	horizontal (H-plane) 360° vertical (E-plane) 78°
TERMINATION	1 m cable RG 213/U with N male
GROUNDING	radiator not grounded
MOUNTING	to 40 - 66 mm ø mast cable runs inside or outside the mast
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastic
WEIGHT	2 kg
WIND AREA	0.13 m^2
WIND LOAD	166 N (150 km/h) 125 N (130 km/h)

Vertical
Radiation
Pattern
E Plane



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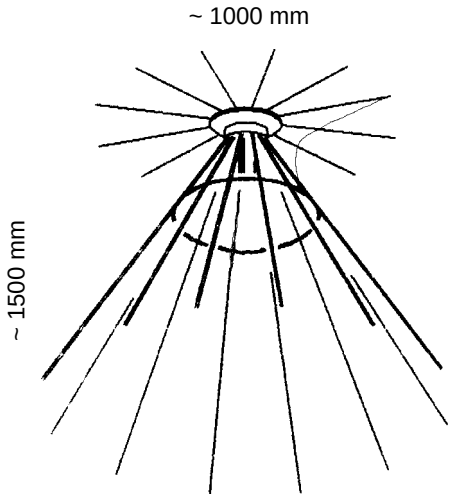
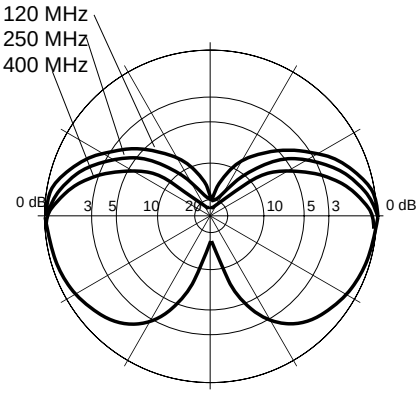
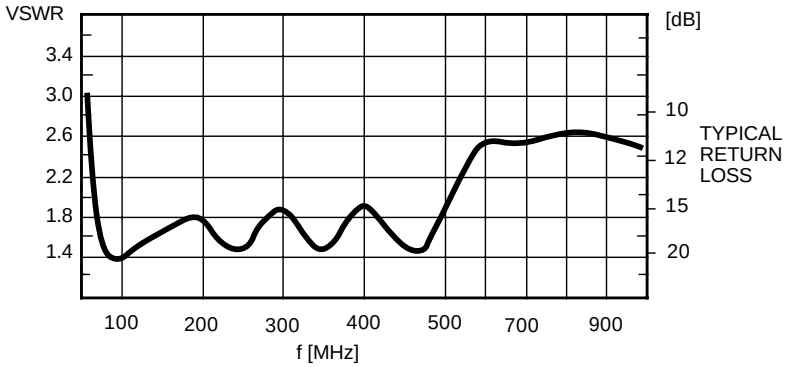
DISCONE ANTENNA
WS 200 92 1
60 - 1100 MHz



TYPE NO.	**WS 200 92 1: 60 - 1100 MHz**
DESCRIPTION	wideband omnidirectional antenna
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 2 from 66 - 550 MHz < 5 from 66 - 1100 MHz
POWER	max. 600 watts (depeding on frequency)
3 dB BEAMWIDTH	horizontal, H plane: 360° (deviation from circularity ± 2 dB)
TERMINATION	1 m cable RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	on mast with outer ø 42 mm, adaptation for other ø on request (option)
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	3.1 kg
WIND AREA	0.37 m^2
WIND LOAD	470 N (150 km/h) 360 N (130 km/h)

Vertical Radiation Pattern, E plane





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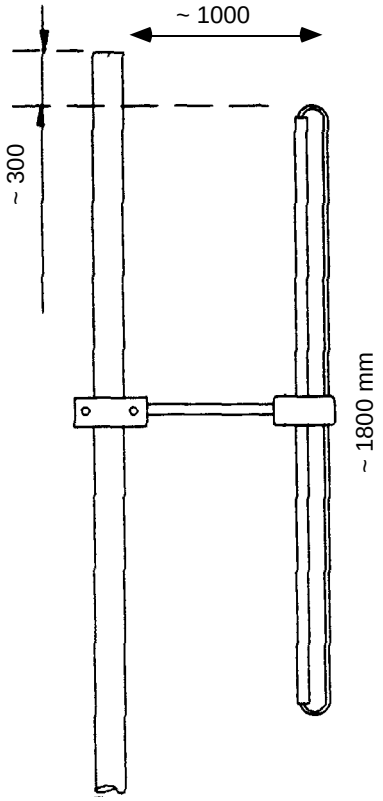
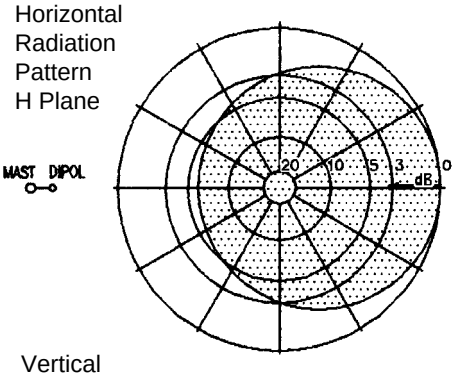
OMNIDIRECTIONAL OFFSET-PATTERN ANTENNA
WS 201 12 10 .
68 ... 88 MHz

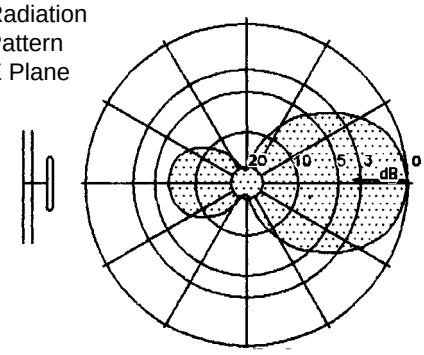


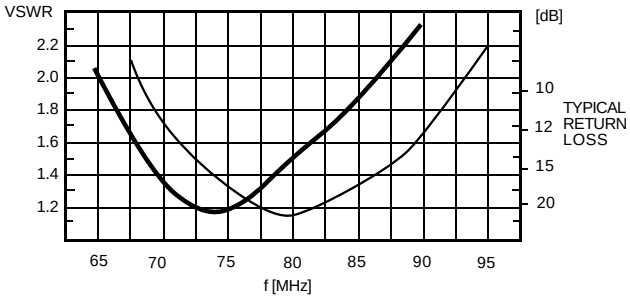
TYPE NO.	**WS 201 12 10 4: 68 - 80 MHz** **WS 201 12 10 5: 74 - 88 MHz** further frequencies on request
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	1.7 dB (ref. to λ/2 dipole)
VSWR	< 1.3, at the limit of the band <1.5
POWER	250 watts
3 dB BEAMWIDTH	horizontal (H-plane) 210° vertical (E-plane) 76°
TERMINATION	2 m cable RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	*mast-ø* *clamps* 30 - 80 mm WG 13 (standard) 50 - 104 mm WG 14 (option) clamps for other mast-ø on request
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	1.5 kg
WIND AREA	0.061 m²
WIND LOAD	77 N 150 km/h 58 N 130 km/h

Horizontal Radiation Pattern H Plane



Vertical Radiation Pattern E Plane





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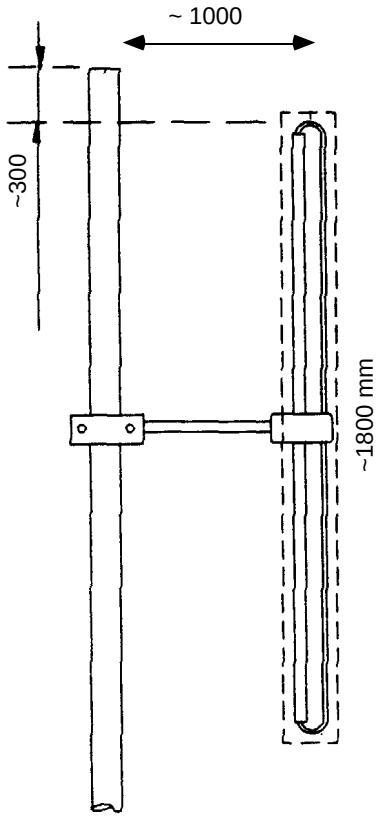
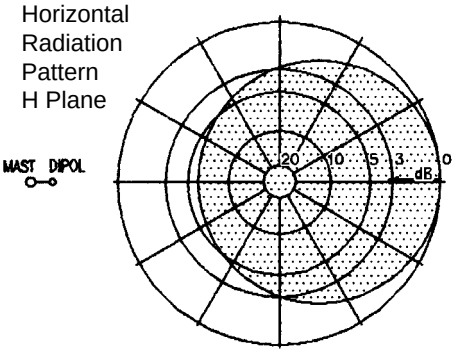
OMNIDIRECTIONAL OFFSET-PATTERN ANTENNA
WS 201 13 10 .
68 ... 88 MHz

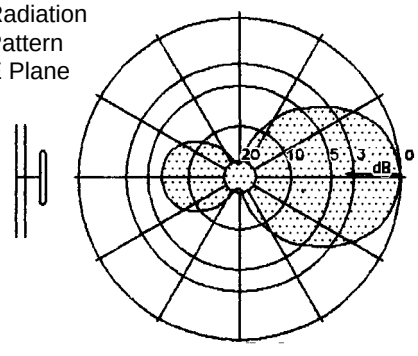


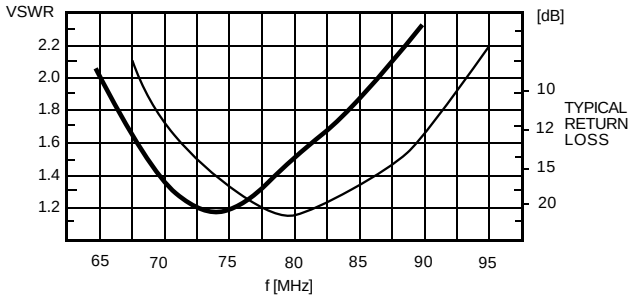
TYPE NO.	**WS 201 13 10 4: 68 - 80 MHz** **WS 201 13 10 5: 74 - 88 MHz** further frequencies on request
DESCRIPTION	Heavy duty, dipole with radome The radom protects the antenna against environmental influences, iceing, and increases the lightning protection.
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	1.7 dB (ref. to λ/2 dipole)
VSWR	< 1.3, at limits of the band < 1.5
POWER	600 watts higher power on request
3 dB BEAMWIDTH	horizontal (H-plane) 210° vertical (E-plane) 76°
TERMINATION	2 m cable RG 213/U ending with N male
GROUNDING	all metal parts are DC grounded
MOUNTING	*mast-ø* *clamps* 30 - 80 mm WG 17 (standard) 50 - 104 mm WG 18 (option) clamps for other mast-ø on request
MATERIAL	aluminium, bolts of stainless steel, radom of UV-stabilized polyethylene
WEIGHT	5 kg
WIND AREA	0.172 m²
WIND LOAD	220 N 150 km/h 165 N 130 km/h

Horizontal Radiation Pattern H Plane



Vertical Radiation Pattern E Plane





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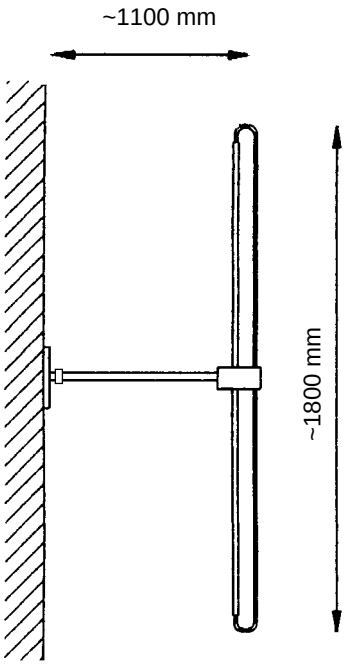
DIPOLE FOR WALL MOUNTING
WS 201 12 19 .
68 ... 88 MHz



TYPE NO.	**WS 201 12 19 4: 68 - 80 MHz** **WS 201 12 19 5: 74 - 88 MHz** further frequencies on request
DESCRIPTION	ligth dipole for wall mountingt the electrical datas are influenced by the surroundings
POLARIZATION	vertical, horizontal on request
IMPEDANCE	50 Ω
GAIN	0-4 dB (ref. λ/2 dipole)
VSWR	≤ 1.5, at the limits of the band < 1.8
POWER	max. 250 watts
3 dB BEAMWIDTH	omnidirectional (depends on wall material)
TERMINATION	2 m cable RG 213/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	with flange no. 22 (see chapt. 10) on walls
MATERIAL	aluminium,bolts of stainless steel, weather-resistant plastics, UV-stabilized plastics
WEIGHT	1.5 kg
WIND AREA	0. 1 m^2
WIND LOAD	127 N (150 km/h) 95 N (130 km/h)

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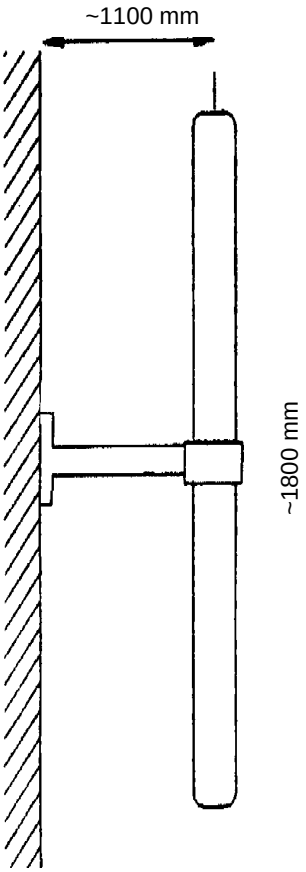
Management-System
Zertifiziert ISO 9001: 2000
Reg. - Nr. 11996-03

DIPOLE FOR WALL MOUNTING
WS 201 13 19 .
68 ... 88 MHz



TYPE NO.	**WS 201 13 19 4: 68 - 80 MHz** **WS 201 13 19 5: 74 - 87.5 MHz** further frequencies on request
DESCRIPTION	dipole with radom The radome protects the antenna dipole from environmental influences, icing, and increases the lightning protection. The electrical datas are influenced by the surroundings
POLARIZATION	vertical, horizontal on request
IMPEDANCE	50 Ω
GAIN	0-4 dB (ref. λ/2 dipole)
VSWR	≤1.5
POWER	max. 250 watts
3 dB BEAMWIDTH	omnidirectional (depends on wall material)
TERMINATION	2 m cable RG 231/U ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	with flange no. 24 (see chapt. 10) on walls
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized polyethylene
WEIGHT	4.7 kg
WIND AREA	0. 14 m^2
WIND LOAD	178 N (150 km/h) 134 N (130 km/h)

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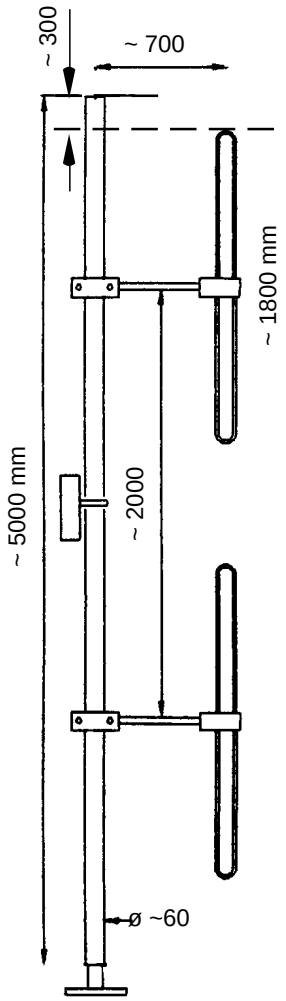
6 dB OMNIDIRECTIONAL OFFSET-PATTERN GAIN ANTENNA
WS 201 12 11 .
68 ... 87.5 MHz

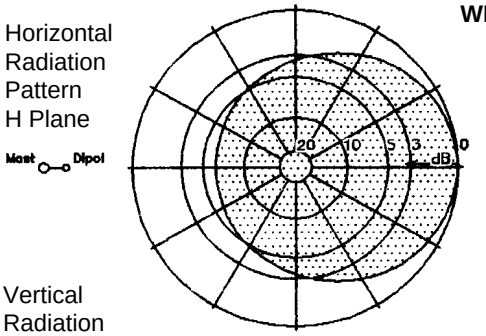


TYPE NO.	**WS 201 12 11 7. : 68 - 74 MHz** **WS 201 12 11 8. : 74 - 82 MHz** **WS 201 12 11 9. : 82 - 88 MHz** further frequencies and tilt on request
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	6 dB (ref. to λ/2 dipole) 0 dB in reverse direction
VSWR	< 1.3, at the limits of the band < 1.5
POWER	250 watts
3 dB BEAMWIDTH	horizontal (H-plane) 180° vertical (E-plane) 40°
TERMINATION	in the junction box WAK 1 with N male
GROUNDING	all metal parts are DC grounded
DELIVERY	2 dipoles with junction and box WAK 1

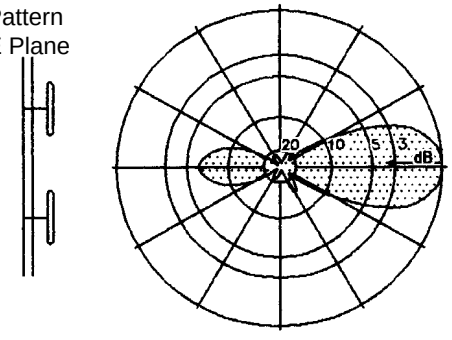
MOUNTING	*mast ø*	*clamp (see chapt. 10)*
	30 - 80 mm	WG 17 (standard)
	50 - 104 mm	WG 18 (option)

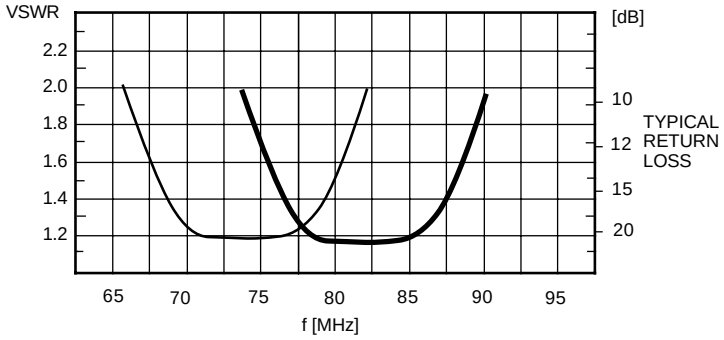
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	12 kg
WIND AREA	0.41 m²
WIND LOAD	520 N (150 km/h) 390 N (130 km/h)

Horizontal Radiation Pattern H Plane



Vertical Radiation Pattern E Plane





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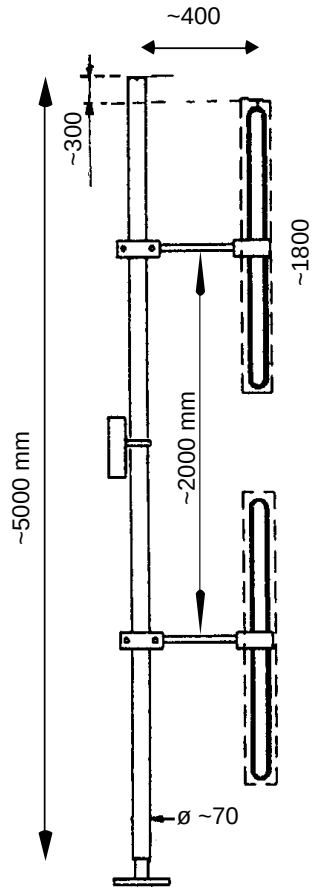
6 dB OMNIDIRECTIONAL OFFSET-PATTERN GAIN ANTENNA
WS 201 13 11 .
68 ... 87.5 MHz

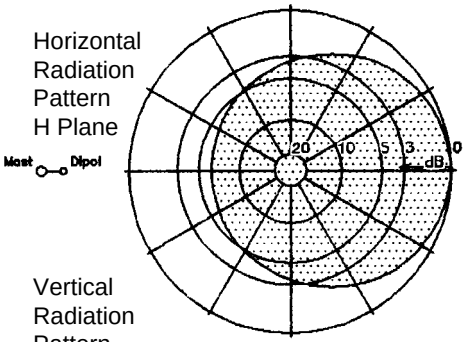


TYPE NO.	**WS 201 13 11 7. : 68 - 74 MHz** **WS 201 13 11 8. : 74 - 82 MHz** **WS 201 13 11 9. : 82 - 88 MHz** further frequencies and tilt on request
DESCRIPTION	heavy duty, with radoms The radoms protects the antenna dipols against environmental influences, iceing, and increases the lightning protection.
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	6 dB (ref. to λ/2 dipole) -0 dB in reverse direction
VSWR	< 1.3
POWER	500 watts
3 dB BEAMWIDTH	horizontal (H-plane) 180° vertical (E-plane) 40°
TERMINATION	in the junction box WAK 1 with N male
GROUNDING	all metal parts are DC grounded
DELIVERY	2 dipoles with junction and box WAK 1

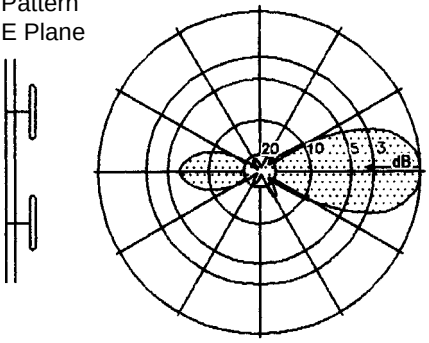
MOUNTING	*mast ø*	*clamp (see chapt. 10)*
	30 - 80 mm	WG 17 (standard)
	50 - 104 mm	WG 18 (option)

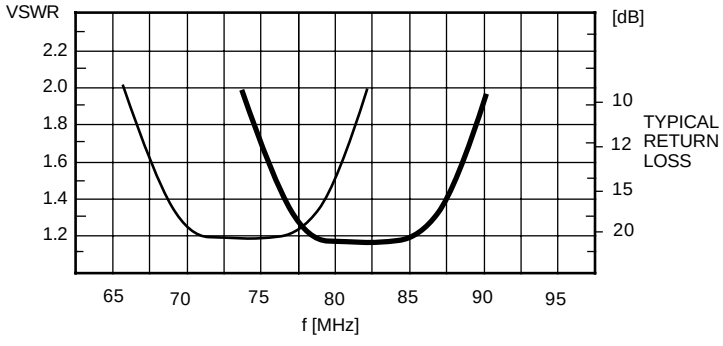
MATERIAL	aluminium, bolts of stainless steel, radom of UV-stabilized polyethylene
WEIGHT	12 kg
WIND AREA	0.41 m²
WIND LOAD	520 N (150 km/h) 390 N (130 km/h)

Horizontal Radiation Pattern H Plane



Vertical Radiation Pattern E Plane





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WIPIC reserves the right to amend specifications in the light of continuing development.

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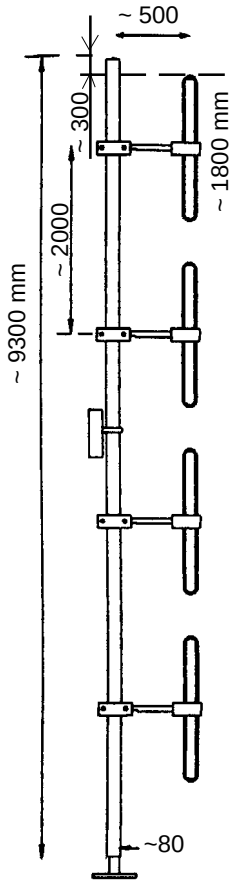
8 dB OMNIDIRECTIONAL OFFSET-PATTERN GAIN ANTENNA
WS 201 12 12 .
68 ... 88 MHz

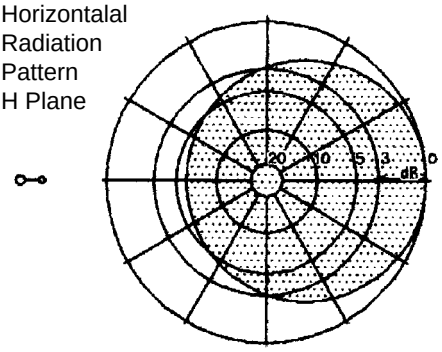


TYPE NO.	**WS 201 12 12 6 : 68 - 73 MHz** **WS 201 12 12 7 : 73 - 78 MHz** **WS 201 12 12 8 : 78 - 84 MHz** **WS 201 12 12 9 : 84 - 88 MHz** further frequencies and tilt on request
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	8 dB (ref. to λ/2 dipole) 2 dB in reverse direction
VSWR	< 1.3
POWER	250 watts
3 dB BEAMWIDTH	horizontal (H-plane) 180° vertical (E-plane) 20°
TERMINATION	in the junction box WAK 1 with N male
GROUNDING	all metal parts are DC grounded
DELIVERY	2dipoles with junction and box WAK 1

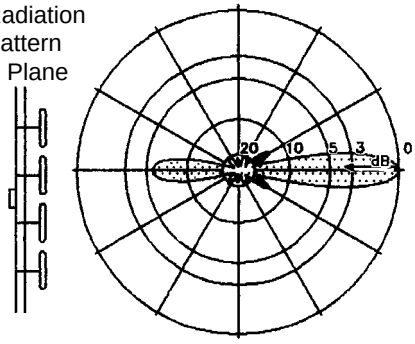
MOUNTING	*mast ø*	*clamp (see chapt. 10)*
	30 - 80 mm	WG 11 (standard)
	50 - 104 mm	WG 12 (option)

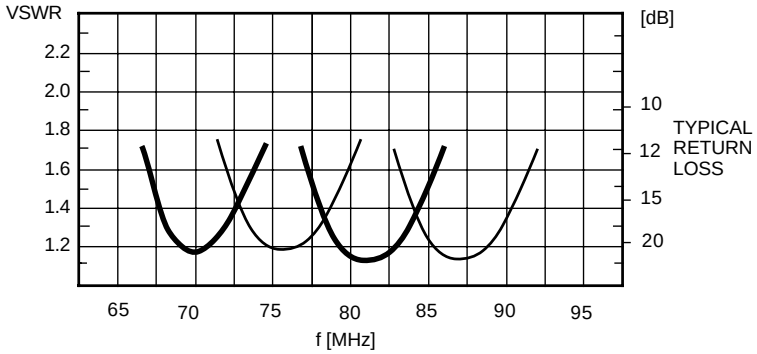
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics
WEIGHT	10 kg
WIND AREA	0.41 m^2
WIND LOAD	450 N (150 km/h) 340 N (130 km/h)

Horizontalal Radiation Pattern H Plane



Vertical Radiation Pattern E Plane





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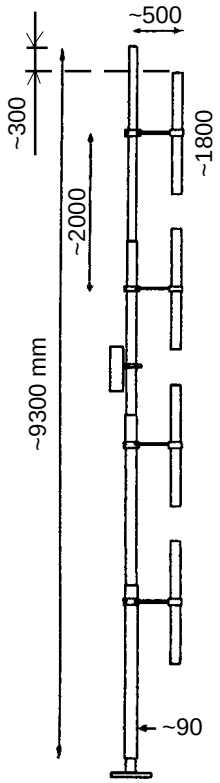
8 dB OMNIDIRECTIONAL OFFSET-PATTERN GAIN ANTENNA
WS 201 13 12 .
68 ... 88 MHz

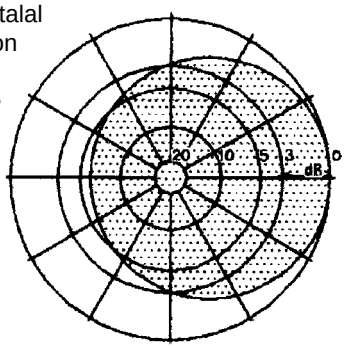


TYPE NO.	**WS 201 13 12 6 : 68 - 73 MHz** **WS 201 13 12 7 : 73 - 78 MHz** **WS 201 13 12 8 : 78 - 84 MHz** **WS 201 13 12 9 : 84 - 88 MHz** further frequencies and tilt on request
DESCRIPTION	heavy duty, with radoms The radoms protects the antenna dipols against environmental influences, icing, and increases the lightning protection.
POLARIZATION	vertical
IMPEDANCE	50 Ω
GAIN	8 dB (ref. to λ/2 dipole) 2 dB in reverse direction
VSWR	< 1.36
POWER	00 watts
3 dB BEAMWIDTH	horizontal (H-plane) 180° vertical (E-plane) 20°
TERMINATION	in the junction box WAK 1 with N male
GROUNDING	all metal parts are DC grounded
DELIVERY	2 dipoles with junction and box WAK 1

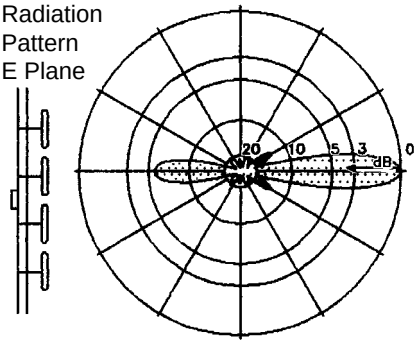
MOUNTING	*mast ø*	*clamp (see chapt. 10)*
	30 - 80 mm	WG 17 (standard)
	50 - 104 mm	WG 18 (option) *(see chapt. 10)*

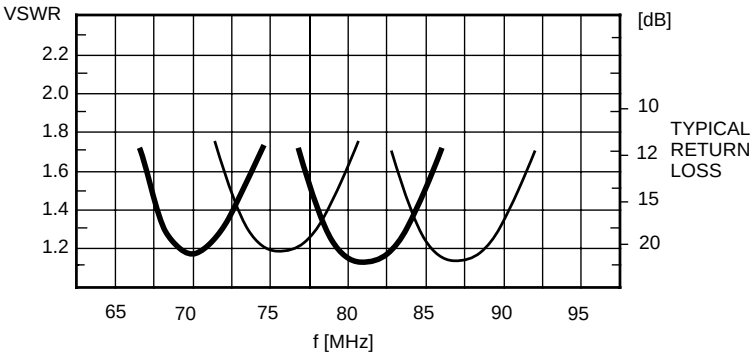
MATERIAL	aluminium, bolts of stainless steel, radom of UV-stabilized polyethylene
WEIGHT	24 kg
WIND AREA	0.8 m²
WIND LOAD	1020 N (150 km/h) 770 N (130 km/h)

Horizontalal Radiation Pattern H Plane



Vertical Radiation Pattern E Plane





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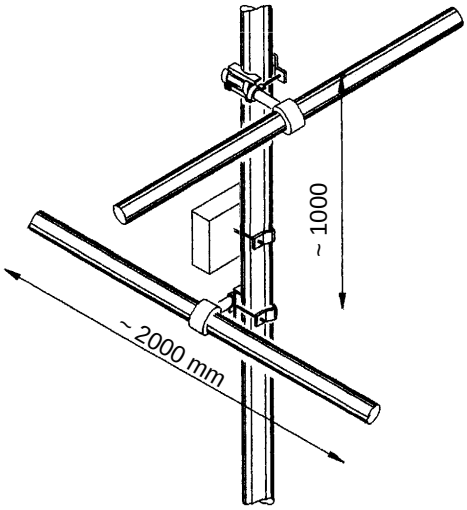
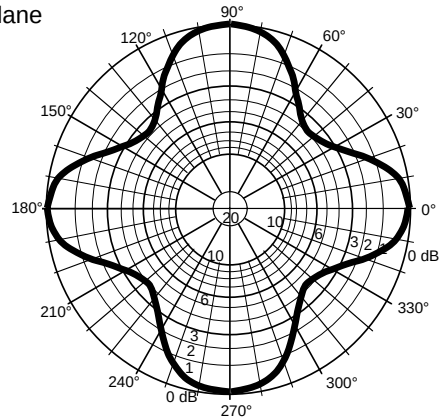
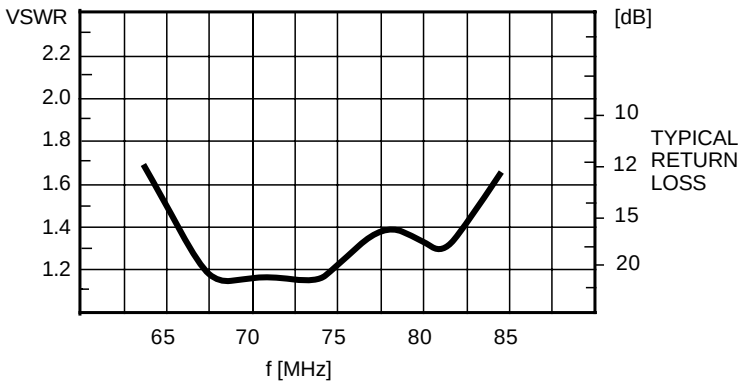
OMNIDIRECTIONAL ANTENNA
WS 201 13 21.
68 ... 87.5 MHz



TYPE NO.	**WS 201 13 21 6: 68 - 76 MHz** **WS 201 13 21 7: 74 - 82 MHz** **WS 201 13 21 8: 80 - 88 MHz** further frequencies on request
DESCRIPTION	dipole with radome The radome protects the antenna dipole from environmental influences, icing, and increases the lightning protection.
POLARIZATION	horizontal
IMPEDANCE	50 Ω
GAIN	0 dB (ref. λ/2 dipole)
VSWR	< 1.3, at the limits of the band <1.4
POWER	max. 500 watts
3 dB BEAMWIDTH	horizontal, E plane: 360° deviation from circularity ± 2 dB vertical, H plane: 78°
TERMINATION	in the junction box WAK 1 ending with N male other termination on request
GROUNDING	all metal parts are DC grounded
MOUNTING	to 50 ≤ 104 mm ø mast cable runes outside the mast clamp for other mast ø on request
MATERIAL	aluminium, bolts of stainless steel, weather-resistant plastics, radome of UV-stabilized polyethylene
WEIGHT	25 kg
WIND AREA	0. 6 m^2
WIND LOAD	766 N (150 km/h) 576 N (130 km/h)

Horizontal Radiation Pattern E Plane





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