

# Directional Antenna

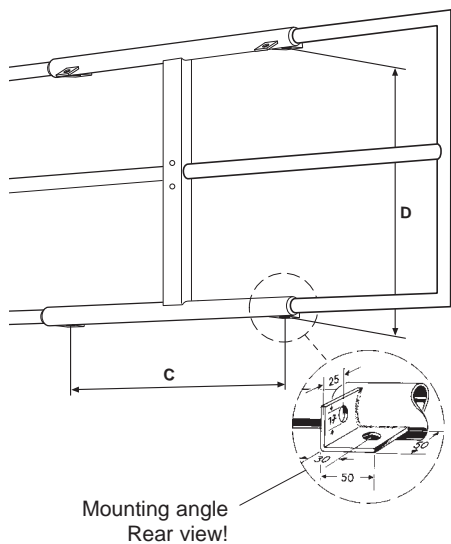
## 47 ... 88 MHz K 52 31 8. .

**KATHREIN**

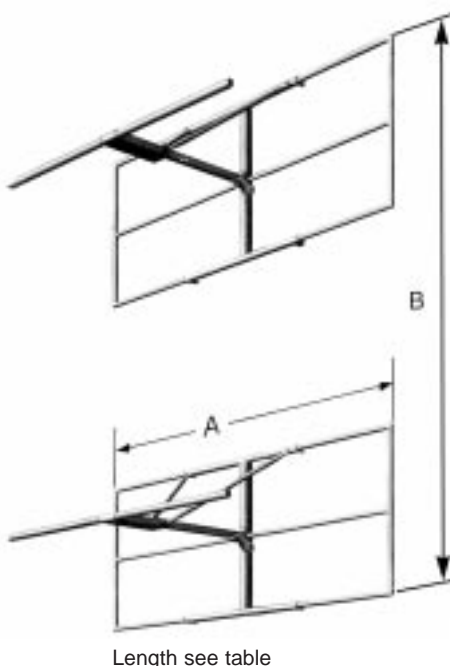
Antennen · Electronic

**SITEL Caponago Tel.02 / 95.74.36.09**

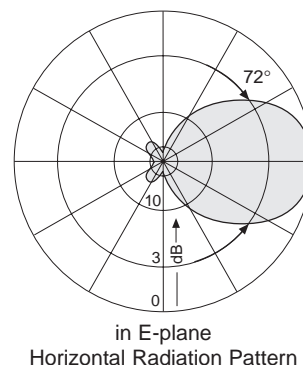
- Directional antenna of hot-dip galvanized steel.
- Especially suitable for square and round masts.



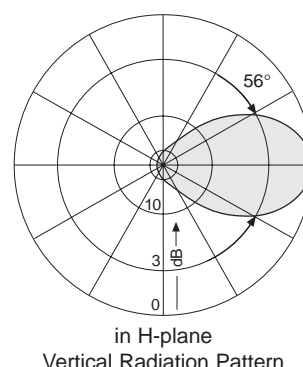
Whole spacing of mounting angles  
size C and D (see table)



**Radiation Patterns**  
(at mid-band)



in E-plane  
Horizontal Radiation Pattern



in H-plane  
Vertical Radiation Pattern

Type No.	K 52 31 81 7	K 52 31 82 7	K 52 31 83 7	K 52 31 84 7	K 52 31 85 7	K 52 31 86 7
Frequency range	47 – 54 MHz	54 – 61 MHz	60 – 68 MHz	66 – 72 MHz	76 – 82 MHz	82 – 88 MHz
Channel	2	3	4	4	5	6
Input	7-16 female					
VSWR	< 1.15					
Gain (ref. $\lambda/2$ -dipole)	7.5 dB					
Polarization	Horizontal (vertical upon request)					
Impedance	50 $\Omega$					
Max. power	6 kW (higher power upon request)					
Dimensions in mm	A	3360	2960	2640	2470	2165
	B	4530	3980	3560	3335	2915
	C	1260	1110	990	925	805
	D	1260	1110	990	925	805
Weight in kg		140	124	110	100	94
Wind load in kN (at v = 160 km/h)						
	frontal	2.60	2.30	2.10	2.05	1.80
	lateral	1.30	1.20	1.10	1.10	1.00
Max. wind velocity	225 km/h					

Material: Hot-dip galvanized steel. Radome: Fiberglass.

Mounting: Mounting hardware and mounting dimensions upon request.

Grounding: Via mounting parts.

Combinations: The antenna is especially suitable as a component in arrays to achieve various radiation patterns. Particularly for square and round masts.

Special features: The antenna is shipped dismounted.

Ice protection: Even under severe icy conditions the antenna is still functional due to its heavy-duty construction and the fiberglass covers for the feeding points.

Scope of supply: Antenna consisting of two half-wave dipoles with reflector screens.

# Directional Antenna

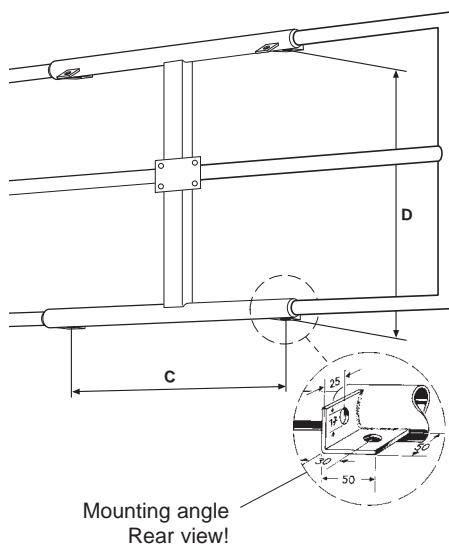
## 47 ... 88 MHz K 52 34 8. .

**KATHREIN**

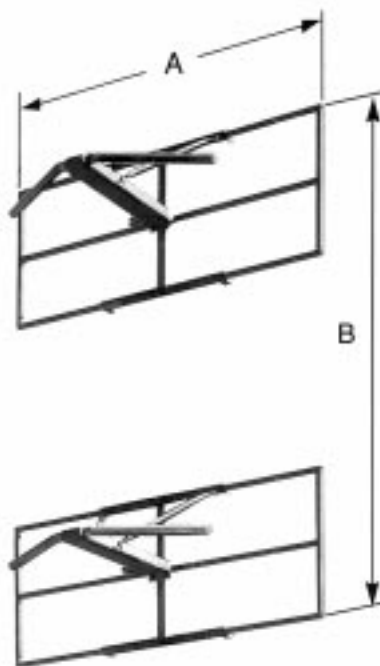
Antennen · Electronic

**SITEL Caponago Tel.02 / 95.74.36.09**

- Directional antenna of hot-dip galvanized steel.
- Especially suitable for triangular and round masts.

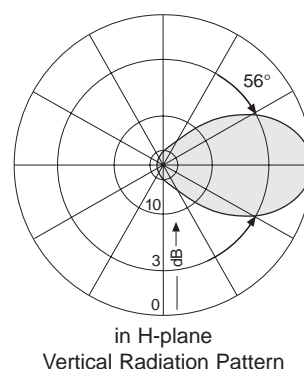
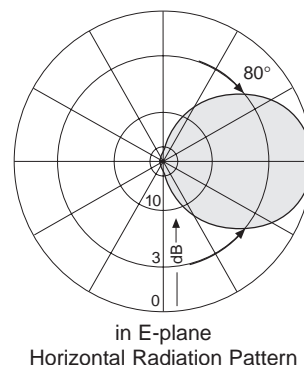


Whole spacing of mounting angles  
size C and D (see table)



Length see table

**Radiation Patterns**  
(at mid-band)



Type No.	K 52 34 81 7	K 52 34 82 7	K 52 34 83 7	K 52 34 84 7	K 52 34 85 7	K 52 34 86 7	
Frequency range	47 – 54 MHz	54 – 61 MHz	60 – 68 MHz	66 – 72 MHz	76 – 82 MHz	82 – 88 MHz	
Channel	2	3	4				
		2	3	4	5	6	
Input	7-16 female						
VSWR	< 1.15						
Gain (ref. $\lambda/2$ -dipole)	7 dB						
Polarization	Horizontal						
Impedance	50 $\Omega$						
Max. power	6 kW (higher power upon request)						
Dimensions in mm	A	3360	2960	2640	2470	2165	2015
	B	4530	3980	3560	3335	2915	2720
	C	1260	1110	990	925	805	750
	D	1260	1110	990	925	805	750
Weight in kg		148	137	125	117	103	97
Wind load in kN (at v = 160 km/h)							
	frontal	2.60	2.20	2.05	1.90	1.70	1.55
	lateral	1.30	1.20	1.15	1.10	1.00	0.95
Max. wind velocity	225 km/h						

Material:	Hot-dip galvanized steel. Radome: Fiberglass.
Mounting:	Mounting hardware and mounting dimensions upon request.
Grounding:	Via mounting parts.
Combinations:	The antenna is especially suitable as a component in arrays to achieve various radiation patterns. Particularly for triangular and round masts.
Special features:	The antenna is shipped dismounted.
Ice protection:	Even under severe icy conditions the antenna is still functional due to its heavy-duty construction and the fiberglass covers for the feeding points.
Scope of supply:	Antenna consisting of two half-wave dipoles with reflector screens.

# Directional Antenna

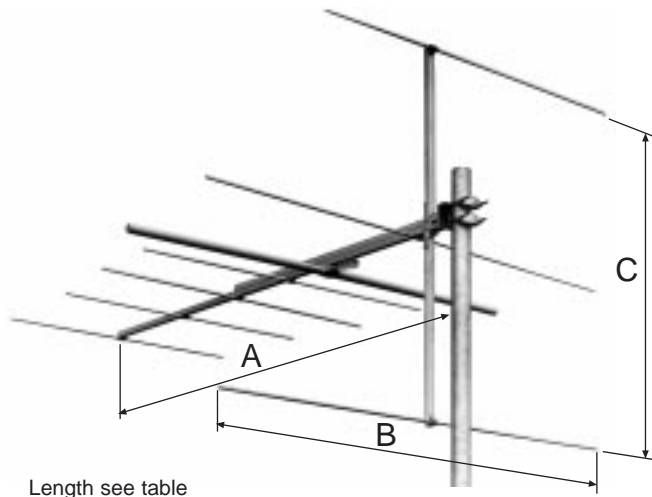
## 47 ... 88 MHz K 52 16 8..

**KATHREIN**

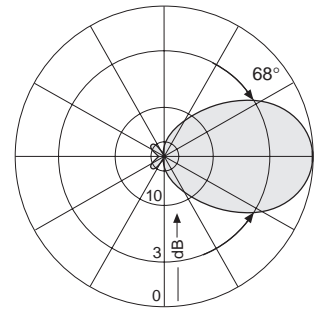
Antennen · Electronic

**SITEL Caponago Tel.02 / 95.74.36.09**

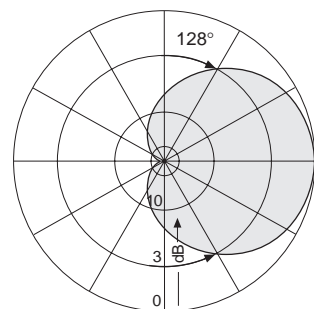
- 8 element Yagi-antenna of weather-proof aluminum, fiberglass-elements with encapsulated copper stranded wire.



**Radiation Patterns**  
(at mid-band)



in E-plane  
Horizontal Radiation Pattern



in H-plane  
Vertical Radiation Pattern

Type No.	Input 7-16 female	K 52 16 81 7	K 52 16 82 7	K 52 16 83 7	K 52 16 84 7	K 52 16 85 7	K 52 16 86 7
	Input N-male	K 52 16 81 1	K 52 16 82 1	K 52 16 83 1			
Frequency range		47 – 54 MHz	54 – 61 MHz	60 – 68 MHz	66 – 72 MHz	76 – 82 MHz	82 – 88 MHz
Channel		2	3	4			
VSWR					< 1.15		
Gain (ref. $\lambda/2$ -dipole)					6 dB		
Polarization					Horizontal or vertical by conversion of the clamps		
Impedance					50 $\Omega$		
Max. power					200 Watt (higher power upon request)		
Dimensions in mm	A	3500	2950	2700	2420	2120	1970
	B	3000	2510	2240	2070	1810	1680
	C	2225	1950	1740	1610	1410	1310
Weight in kg		18	15	12.5	11.5	10	9
Wind load in N (at v = 160 km/h)							
Horizontally polarized	frontal	715	615	540	500	440	400
	lateral	675	575	475	440	375	350
Vertically polarized	frontal	715	615	540	500	440	400
	lateral	790	675	615	565	500	465
Packing in cm		330 x 76 x 13	275 x 76 x 13	250 x 76 x 13	222 x 76 x 13	192 x 76 x 13	177 x 76 x 13
Max. wind velocity					160 km/h		

Material:

Support: Weather-proof aluminum. Elements: Fiberglass with inlaid copper wire.  
Cover: Fiberglass. Clamp: Hot-dip galvanized steel.

Mounting:

To pipes of 60 – 115 mm diameter by means of mounting clamps, supplied.

Special features:

The antenna is shipped dismounted.

Combinations:

Two or more antennas can be combined to achieve higher gain and longer, narrower beam width.

Grounding:

Via mounting parts.