HIRSCHMANN

Satellite Components

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ECO FESAT series

Type	ECO FESAT 65 S	ECO FESAT 80 S	ECO FESAT 90 S
Order No.	940 192-001	940 193-001	940 194-001

Various reflector colours			
Light grey	940 192-001	940 193-001	940 194-001
Slate grey	940 192-011	940 193-011	940 194-011
Brick red	940 192-023	940 193-023	940 194-023
Product Data			
Reflector Ø	65 cm	80 cm	90 cm
Frequency range	10.7-12.75 GHz	10.7-12.75 GHz	10.7-12.75 GHz
Gain at 11,3 GHz	35.7 dBi	37.0 dBi	38.7 dBi
Cross polarisation	>27 dB	>27 dB	>27 dB
Offset angle	26°	26°	26°
F/D ratio	0,6	0,6	0,6
Half-value aperture	3,1°	2,6°	2,0°
Mount for Mast			
Size (Width x height)	66x60 cm	78x70 cm	95x85 cm
Wind load	411 N[1)]	566 N[1)]	837 N[1)]
Mast diameter	32 -60 mm	32 -60 mm	32 -60 mm
Operating conditions			
Weight	4.5 kg	5.2 kg	7.5 kg

In addition to the familiar reception quality, the offset parabolic antennas in the "ECO FESAT" series offer excellent value for money. The new design with an improved elevation mounting makes adjustment easier: simply fold out the pre-assembled feed arm and click in the LNC mounting and LNC.

- *Available in 65, 80 and 90 cm diameter*
- *Quick, easy assembly*
- *Galvanized steel reflector*
- *Chromatized surface with polyester coating*
- *Including pre-assembled feed arm and LNC mounting (25 to 40 mm Ø)*
- *Feed arm and El/Az mounting made of aluminum*
- *Pre-assembled elevation mounting with adjustment scale*
- *Stable mast mounting with one or two U brackets*
- *Available in 3 standard colors*
- *Double and multifeed mountings available as accessories*
- *5 year function guarantee*

1) Wind load calculated in accordance with EN 50083 Part 1 with q= 800 N/m^2 (Mounting height up to 20 m)

Multi-packages (Bulks) available on request

Hit SAT series

Type	Hit FESAT 65	Hit FESAT 75	Hit FESAT 85
Order No.	965 038-001	965 039-001	965 040-001
			
Various reflector colours			
Light grey	965 038-001	965 039-001	965 040-001
Slate grey	965 038-011	965 039-011	965 040-011
Brick red	965 038-023	965 039-023	965 040-023
Dark brown*			965 040-014
Product Data			
Reflector Ø	65 cm	75 cm	85 cm
Frequency range	10.7-12.75 GHz	10.7-12.75 GHz	10.7-12.75 GHz
Gain at 10,95 GHz	Min. 36.0 dBi	Min. 37.3 dBi	Min. 38.3 dBi
Half-value aperture 3 dB	2,85°	2,4°	2,1°
Offset angle	21,3°	21°	21,1°
Noise temp. at 30° elevation	46 K	42 K	40 K
G/T	19.4 dB/K	21.1 dB/K	22.3 dB/K
Mount for Mast			
Diameter	40 -89 mm	40 -89 mm	40 -89 mm
Adjustment range, elevation	15°-45°	15°-45°	15°-45°
Wind load	375 N[1)]	480 N[1)]	600 N[1)]
Width/height	67x71.5 cm	75x80 cm	85.5x90.5 cm
Operating conditions			
Weight	6 kg	6.5 kg	9 kg
Can be combined with	- Hit CS 300/ 320/ 400/ 404/ 408/ 504 receiving systems - For wall mounts and support see “Mechanical accessories”	- Hit CS 300/ 320/ 400/ 404/ 408/ 504 receiving systems - For wall mounts and support see “Mechanical accessories”	- Hit CS 300/ 320/ 400/ 404/ 408/ 504 receiving systems - For wall mounts and support see “Mechanical accessories”
Packing			
Individual packing dimensions	80x95x22 cm	80x95x22 cm	
Scope of delivery	- Reflector with supporting arm, feed mounting, El/Az mast mounting	- Reflector with supporting arm, feed mounting, El/Az mast mounting	- Reflector with arm, feed mounting, El/Az mast mounting

Hit SAT-PROGRAMM

The solution for single or multiple user systems with future-proof technology, maximum quality and excellent value for money. A sophisticated concept which not only includes individual products, but also package systems with receivers and multi-switches.

Offset parabolic reflectors Hit SAT range

- *For fixed alignment to a satellite in the 10.7-12.75 GHz band*
- *Standard feed mounting for all Hit class receiving systems*
- *Feed mounting 23-40 mm*
- *Aluminum reflector*
- *Elevation adjustment scale*
- *Sturdy bracket*
- *Corrosion-proof parts*
- *Cable duct in feed arm and rear section*
- *Pre-assembled, fold-out feed arm*
- *Rear section and mast bracket pre-assembled and folded up for easy assembly. No loose parts*

* *Only available in Austria*

1) *Wind load calculated in accordance with EN 50083 Part 1 with q= 800 N/m^2 (Mounting height up to 20 m)*

FESAT series

Type	FESAT 85 K	FESAT 95 K	FESAT 120 K
Order No.	913 054-001	913 978-001	913 968-001
			
Various reflector colours			
Slate grey		913 978-011	
Light grey	913 054-001	913 978-001	913 968-001
Brick red		913 978-023	
Product Data			
Reflector Ø	85 cm	95 cm	120 cm
Frequency range	10.7-12.75 GHz	10.7-12.75 GHz	10.7-12.75 GHz
Gain at 10,95 GHz	38.3 dBi	39.7 dBi	41.5 dBi
Half-value aperture 3 dB	2,1°	1,78°	1,37°
Offset angle	21,1°	21°	21,3°
Noise temp. at 30° elevation	40 K	38 K	36 K
G/T	22.3 dB/K	23.9 dB/K	25.9 dB/K
Mount for Mast			
Diameter	40 -89 mm	40 -89 mm	60 -89 mm
Adjustment range, elevation	15°-40°	15°-40°	5°-45°
Wind load	600 N[1)]	800 N[1)]	1270 N[1)]
Width/height	82.5 / 87.5 mm	94.5 / 101.5 mm	124.5 / 133.5 mm
Operating conditions			
Weight	11 kg	13 kg	21 kg
Can be combined with	- All Hit CS receiving systems... (With CAS 4000 N “click-in” system mounting) - For wall mounts and support see “Mechanical accessories”	- All Hit CS receiving systems... (With CAS 4000 N “click-in” system mounting) - For wall mounts and support see “Mechanical accessories”	- All Hit CS receiving systems... (With CAS 4000 N “click-in” system mounting) - For wall mounts and support see “Mechanical accessories”
Packing			
Reflector	111x97x19 cm	113x107x15 cm	141x132x9 cm
Scope of delivery	- Reflector - Supporting arm with adapter plate for 1 or 2 LNBs - El/Az mast mounting with CAS 4000 N system mounting	- Reflector - Supporting arm with adapter plate for 1 or 2 LNBs - El/Az mast mounting with CAS 4000 N system mounting	- Reflector - Supporting arm with adapter plate for 1 or 2 LNBs - El/Az mast mounting with CAS 4000 N system mounting

- *For fixed alignment to a satellite in the 10.7-12.75 GHz band*
- *Aluminum reflector*
- *Elevation adjustment scale*
- *Sturdy mounting*
- *Corrosion-proof parts*
- *Cable duct in feed arm and rear section*
- *Pre-assembled, fold-out feed arm*
- *Mast mounting, rear section and arm pre-assembled and folded up for easy assembly. No loose parts*

1) *Wind load calculated in accordance with EN 50083 Part 1 with q= 800 N/m^2 (Mounting height up to 20 m)*

FESAT 85 K/ FESAT 95 K

- *“Click-in” system rail for fastening one or two Hit CS series receiving systems + system mounting at 6° spacing*

FESAT 120 K

- *“Click-in” system rail for fastening 3 Hit CS series receiving systems + CAS 4000 N at 3° and 6° spacing*
- *Supplied in two boxes*

FESAT 150 serie

Type	FESAT 150
Order No.	940 054-001

Various reflector colours	
Light grey	940 054-001
Product Data	
Reflector Ø	150 cm
Frequency range	10.7-12.75 GHz
Gain at 10,95 GHz	43.3 dBi
Half-value aperture 3 dB	1,1°
Offset angle	21,3°
Noise temp. at 30° elevation	33 K
G/T	20.6 dB/K
Mount for Mast	
Diameter	50 -89 mm
Adjustment range, elevation	20°-90°
Adjustment range, azimut	0°-360°
Wind load	2305 N[1)]
Operating conditions	
Weight	26 kg with mounting
Can be combined with	- All Hit CS receiving systems... - DFH 1502 double feed mounting - TFH 1503 triple feed mounting - CSG 2401 A mount
Packing	
Individual packing dimensions	- 173x166x18 cm antenna - El/Az mast mounting 50x50x25 cm
Scope of delivery	- Reflector - Supporting arm with El/Az mast mounting

- *For fixed alignment to a satellite in the 10-13 GHz band*
- *Aluminum reflector*
- *Elevation adjustment scale*
- *Sturdy mounting*
- *Corrosion-proof parts*
- *Cable duct in feed arm and rear section*
- *Hot-dip galvanized feed arm coated in same color as reflector with additional aluminum side struts*
- *El/Az holder made of hot-dip galvanized steel, coated in same color as reflector*
- *Feed mounting for receiving systems of 23 or 40 mm diameter, e.g. Hit CS ...*

1) Wind load calculated in accordance with EN 50083 Part 1 with q= 800 N/m² (Mounting height up to 20 m)

Options:

- *Double feed mounting DFH 1502, Ord.-No. 940 056-001*
- *Triple feed mounting TFH 1503, Ord.-No. 940 057-001*
- *Mast CSG 2401 A, Order No. 813 627-101*

Universal receiving systems

Type	HIT CS 300	HIT CS 320	HIT CS 400
Order No.	965 044-001	965 045-001	965 046-001
			
Applications			
Device type	Single	Dual/Twin	Quatro
Frequency range			
Input low band	10.7-11.7 GHz	10.7-11.7 GHz	10.7-11.7 GHz
Input high band	11.7 -12.75 GHz	11.7-12.75 GHz	11.7-12.75 GHz
Output low band	950 -1950 MHz	950 -1950 MHz	950 -1950 MHz
Output high band	1100 -2150 MHz	1100 -2150 MHz	1100 -2150 MHz
Oscillator			
Frequency low band	9.75 GHz	9.75 GHz	9.75 GHz
Frequency high band	10.6 GHz	10.6 GHz	10.6 GHz
Reception capacity			
Noise figure typ.	0.9 dB	0.9 dB	0.9 dB
Gain	50 dB	50 dB	50 dB
Polarization	Linear, vertical or horizontal switching	Linear, independent outputs, vertical or horizontal	Linear, 4 outputs; 2 horiz. + low/high, 2 vert. + low/high
Polarization decoupling	25 dB	25 dB	25 dB
Switching voltage			
vertical polarization	+13 V (11.5-14.2)	+13 V (11.5-14.2)	
horizontal polarization	+18 V (15.8-19)	+18 V (15.8-19)	
Switching signal			
low band	0 kHz	0 kHz	-
high band	22 kHz	22 kHz	-
RF connections			
F connectors	75 Ω	2x 75 Ω	4x 75 Ω
Operating conditions			
Remote feed voltage			12-18 at any output
Current consumption	Max. 150 mA	Max. 300 mA	Max. 300 mA
Feed fitting	40 mm	40 mm	40 mm
Operating temperature	-30 to +60 °C	-30 to +60 °C	-30 to +60 °C
Weight	380 g	450 g	470 g
Packing			
Individual packing dimensions wxhxd	11x6.5x9.7 cm	14.7x11.5x7.8 cm	14.7x11.5x7.8 cm

- *For offset parabolic antennas Hit FESAT, FESAT 150 and FESAT...K with "click-in" CAS 4000 N*
- *Suitable for all 40 mm diameter standard feed mountings*
- *For receiving all common satellites such as ASTRA, Eutelsat and Türksat, digital and analog*
- *In fully encapsulated die-cast aluminum housing*
- *Plastic outer housing for extra protection*
- *Low current consumption*
- *Conforms to EN 50083-1 and 2*

CE

HIT CS 300

- *For single antenna systems*

HIT CS 320

- *For antenna systems with up to 2 subscribers*

HIT CS 400

- *For star distribution or floor distribution in conjunction with a multi-switch (single or cascade)*
- *For channel processing*
- *Multi-switch with standard feed can be used with no problems*

Universal receiving systems

Type	HIT CS 404	Hit CS 408	Hit CS 504
Order No.	965 076-001	965 090-001	965 082-001
			
Applications			
Device type	Quatro switch	Octo switch	Quatro switch with terrestrial input
Frequency range			
Input low band	10.7 -11.7 GHz	10.7-11.7 GHz	10.7-11.7 GHz
Input high band	11.7 -12.75 GHz	11.7-12.75 GHz	11.7-12.75 GHz
Output low band	950 -1950 MHz	950 -1950 MHz	950 -1950 MHz
Output high band	1100 -2150 MHz	1100 -2150 MHz	1100 -2150 MHz
Oscillator			
Frequency low band	9.75 GHz	9.75 GHz	9.75 GHz
Frequency high band	10.6 GHz	10.6 GHz	10.6 GHz
Reception capacity			
Noise figure typ.	0.7 dB	0.7 dB	0.7 dB
Gain	Min. 50 dB	Min. 55 dB	Min. 50 dB
Polarization	Linear, 4 outputs; Independent vert./horiz.+low/high Switchable	Linear, 8 outputs; Independent vert./horiz.+low/high Switchable	Linear, 4 outputs; Independent vert./horiz.+low/high Switchable
Polarization decoupling	25 dB	25 dB	20 dB
Switching voltage			
vertical polarization	+13 V (11.5-14.2)	+13 V (11.5-14.2)	+13 V (11.5-14.2)
horizontal polarization	+18 V (15.8-19)	+18 V (15.8-19)	+18 V (15.8-19)
Switching signal			
low band	0 kHz	0 kHz	0 kHz
high band	22 kHz	22 kHz	22 kHz
RF connections			
F connectors	4x 75 Ω	8x 75 Ω	4x 75 Ω
Operating conditions			
Current consumption	Max. 350 mA	200 mA	300 mA
Feed fitting	40 mm	40 mm	40 mm
Operating temperature	-30 to +60 °C	-30 to +60 °C	-30 to +60 °C
Weight	470 g	400 g	470 g
Packing			
Individual packing dimensions wxhxd	16.5x11.7x7.7 cm	16.5x11.7x7.7 cm	16.5x11.7x7.7 cm

Hit SAT-PROGRAMM

- *For offset parabolic antennas Hit FESAT, FESAT 150 and FESAT...K with "click-in" CAS 4000 N*
- *Suitable for all 40 mm diameter standard feed mountings*
- *For receiving all common satellites such as ASTRA, Eutelsat and Türksat, digital and analog*
- *In fully encapsulated die-cast aluminum housing*
- *Plastic outer housing for extra protection*
- *Low current consumption*
- *Conforms to EN 50083-1 and 2*
- CE

HIT CS 404

- *For antenna systems with up to 4 subscribers*
- *Switching via integrated multi-switch*
- *Can be expanded to multi-user systems using multi-switch with 22 kHz switching signal*

Hit CS 408

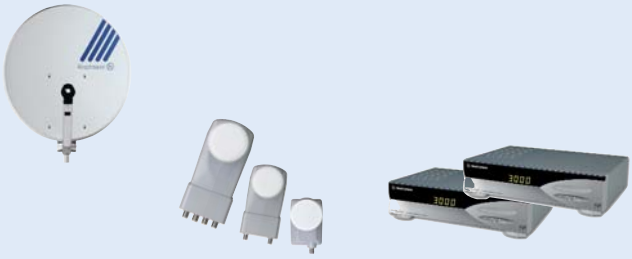
- *For antenna systems with up to 8 subsrcibers*
- *Switching via integrated multi-switch*

Hit CS 504

- *For antenna systems with up to 4 subscribers*
- *Switching via integrated multi-switch*
- *Attenuation at the terrestrial output: -16 dB at 47 ... 862 MHz*

Hit SAT packages

Hit Packages



Typ		Hit Package 7521 FTA/5 II	Hit Package 7521 FTA/4 II	Hit Package 7541 FTA/5 II	Hit Package 7541 FTA/4 II	Hit Package 8541 FTA/5 II	Hit Package 8541 FTA/4 II
Order No.	light grey	940 208-001	940 209-001	940 210-001	940 211-001	940 212-001	940 213-001
	slate grey	940 208-011	940 209-011	940 210-011	940 211-011	940 212-011	940 213-011
	brick red	940 208-023	940 209-023	940 210-023	940 211-023	940 212-023	940 213-023
Complete package for up to							
	2 subscribers	●	●				
	4 subscribers			●	●	●	●
	8 subscribers						
Individual components:							
Parabolic antennas	**Hit FESAT 75**	●	●	●	●		
	Hit FESAT 85					●	●
Universal LNBs							
Twin	**Hit CS 320**	●	●				
Quatro Switch	**Hit CS 404**			●	●	●	●
Octo Switch	**Hit CS 408**						
Digital receivers							
1 x	**CSR 50 II**	●		●		●	
1 x	**CSR 40 II**		●		●		●
Can be expanded with further receivers, e.g.							
	CSR 40 II	●	●	●	●	●	●
	CSR 50 II	●	●	●	●	●	●
	CSR 92 II HD Twin	●	●	●	●	●	●

Hit Sets

	Hit Set 8541 QS	Hit Set 8581 QS	
	965 080-001 965 080-011 965 080-023	965 091-001 965 091-011 965 091-023	
	●		
		●	
	●	●	
	●		
		●	
	●	●	
	●	●	
	●	●	

Hit SAT-PROGRAMM

This is a summary of the standard packages and sets. Other combinations are also possible. You will find further information in the Hit SAT brochure or in the price list.

Hit packages

- *Complete satellite receiving system in one box*
- *Comprising:*
  - *Offset parabolic antenna in a choice of 3 sizes and 3 colours*
  - *universal receiving systems Twin or Quatro (switch)*
  - *Receiver*
  - *Sat receiver, digital*
- *For a wide variety of digital programs*

Hit Sets

- *Complete satellite outdoor unit in one box*
- *Comprising*
  - *Offset parabolic antenna in a choice of 3 colours*
  - *Universal receiving systems Quatro or Octo (switch)*
- *For analogue and digital*

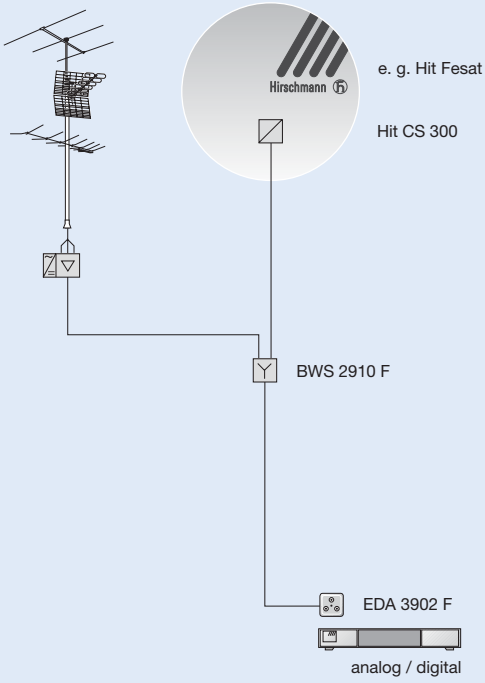
We reserve the right to make changes as a result of the introduction of new products.

Example applications

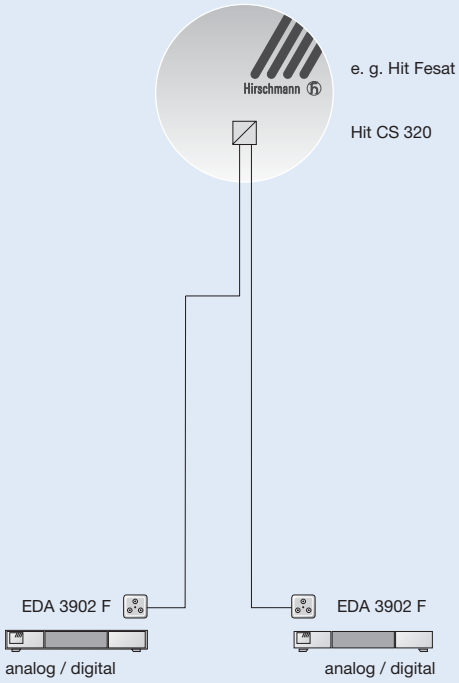
Typical example systems for Single, Twin, Quatro and Quatro Switch LNBs

You will find other example systems in brochures or in the Internet at www.hirschmann-multimedia.com

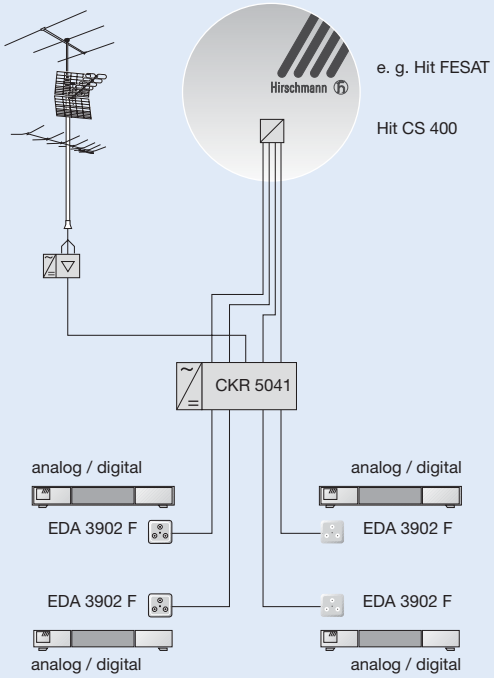
Single LNB



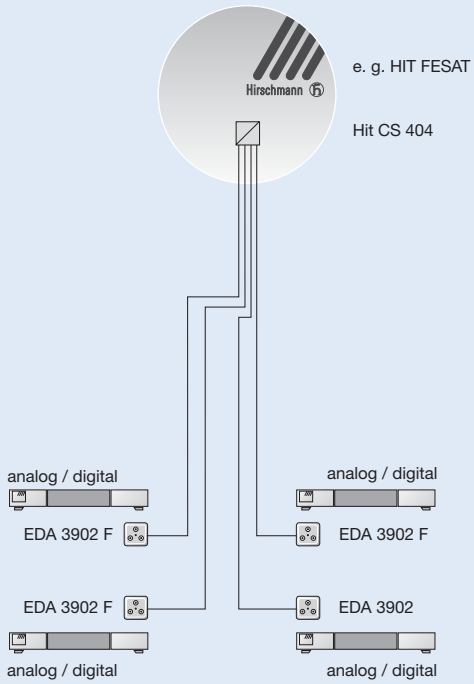
Twin LNB



Quatro LNB + Multiswitch



Quatro Switch LNB



Feed Mounts

ECO-DFH-2

- *Double feed mounting (6°)*
- *For adding a second receiving system (e.g. Hit CS...) to existing systems*
- *For simultaneous reception of satellites at a distance of around 6° to each other, e.g. ASTRA 19.2° east and Eutelsat 13° east*

Type	ECO-DFH-2	
Order No.	940 203-001	940 203-002
	black	grey

ECO-DFH-2 Flex

- *Flexi double feed mounting (3°-10°) with corresponding LNB (e.g. ALPS)*
- *For adding a second receiving system (e.g. Hit CS...) to existing systems*
- *For simultaneous reception of satellites at a distance of around 6° to each other, e.g. ASTRA 19.2° east and Eutelsat 13° east*

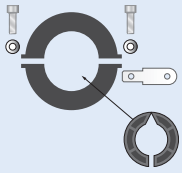
ECO VHF-4

- *A Multi-Block (3° to 20°) for four LNBs (diamteter 40mm) with min. 4 degrees between the satellite positions*

Type	ECO-DFH-2 Flex	ECO VHF-4
Order No.	940 204-001	940 206-001

Operating conditions	
Weight	15 g
Packaging	Cardboard box

Feed Mounts

Type	Hit DFH 852	DFH 850
Order No.	965 069-001	913 988-001
		
Operating conditions		
Material	Plastic	Aluminum
Weight	40 g	40 g
Packaging	Polythene bag	Polythene bag

Hit DFH 852

- *Double feed mounting*
- *Plastic feed mounting with aluminum connector for attaching a second Hit CS series receiving system*
- *For simultaneous reception with the Hit FESAT 85 parabolic antenna of satellites at a distance of around 6° to each other, e.g. ASTRA 19.2° east and Eutelsat 13° east*
- *For Hit Fesat 65/ 75/ 85*
- *For the multifeed solution, Hirschmann recommends the Hit Fesat 85*

DFH 850

- *Double feed mounting*
- *For adding a second receiving system (e.g. Hit CS...) to existing systems, e.g. Fesat 850*
- *For simultaneous reception of satellites at a distance of around 6° to each other, e.g. ASTRA 19.2° east and Eutelsat 13° east*

Type	CAS 4000 N	CAS 5585 E
Order No.	961 101-001	913 838-002
		
Operating conditions		
Material		Aluminum
Weight		40 g
Packaging		Polythene bag

CAS 4000 N

- *System mounting*
- *For upgrading existing systems, e.g. FESAT...K, to LNB with 40 mm feed mounting*

CAS 5585 E

System feed mounting

- *For upgrading existing systems to LNB with 40 mm feed mounting (e.g. Hit CS...)*