GSM applications

The 7/16 (DIN) is a scaled-up weatherproof connector with a sealing O-ring. In some applications this connector can be used up to 7,5 GHz. Connector styles are available for flexible, conformable and corrugated cable types. Solder, clamp and cable termination processes are used for this series. These connectors are typically used in mobile applications and as test equipment where vibration resistance and environmental protection is required. Special design techniques for this series of connectors have resulted in previously unattainable levels of return loss (VSWR) and intermodulation distortion (IMP). 7/16 connectors are a high-power high-frequency solution for coaxial connections.

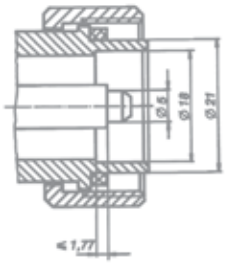
	Clamp type	
	DIN 7/16 female	DIN 7/16 male
foam superflexible 1/2”	CEL 716-50-9-4 CEL 50-16-611	CEL 716-50-9-5 CEL 50-16-791 CEL 50-16-661 CEL 50-16-676
foam 1/2”	CEL 50-16-771	CEL 50-16-772
foam 7/8”	CEL 50-16-773	CEL 50-16-774
foam 7/8” VXL5-50	CEL 50-16-793	CEL 50-16-794
foam 1 1/4”	CEL 50-16-775	CEL 50-16-776
foam 1 5/8”	CEL 50-16-777	CEL 50-16-778

Foam cables are suitable for following manufacturers:
- Andrew
- RFS
- Dielectric
- SUHNER
- EUPEN
- Nokian

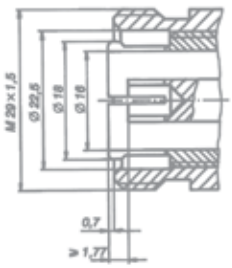
technical data

Impedance	50 Ohm
Max. operating frequency	7,5 GHz
Max. power at 100 MHz	5 kW
Max. power at 1 GHz	1,5 kW
VSWR	< 1,06; f < 2,5 GHz
Dielectric	PTFE
Body	CuZn
Contacts	CuBe, CuSn
Surface finish	Contacts - silver Body - nickel or silver plated
Temperature range	from - 65°C to +165°C (Climate category according IEC 6855/155/5C)
Pressure sealing	3 bars

MALE



FEMALE



JUMPER CABLES

Jumper cables are finished to the required cable length with two appropriate connectors and a heat shrink tube to guarantee water resistance. Flexible and super-flexible cable types are available in dimensions from 1/4” up to 2 1/4”.

Connectors are available in both male and female type, as well as in straight or angled version. 7/16 connectors are the most rugged RF connectors that can support the severest environmental conditions. 360° soldered joining enables low intermodulation (IMD).

All jumper cables are tested up to 2,2GHz.

electrical specification

IMPEDANCE	50 ± 1 Ohm		
PROP. OF VELOCITY	0,82 %		
RETURN LOSS		**Straight**	**Right angle**
	900 MHz	- 32 dB	- 30 dB
	1800 MHz	- 32 dB	- 28 dB
	2200 MHz	- 30 dB	- 28 dB
CABLE LOSS	900 MHz	0,106 dB/m	
	1800 MHz	0,157 dB/m	
	2200 MHz	0,177 dB/m	
POWER HANDLING	900 MHz	750 W	
	1800 MHz	510 W	
	2200 MHz	460 W	

mechanical specifications

TEMPERATURE INSTALLATION	from -20 to +60°C
TEMPERATURE OPERATION	from -40 to +70°C
MINIMUM BENDING RADIUS	30 mm
STANDARD JACKET	Black LD polyethylene
	Fire retardant jacket (IEC332-3C) on request
	Other jacket colours on request
CONNECTOR ATTACHMENT	Straight connectors: full soldered
	Right angle connectors: clamp

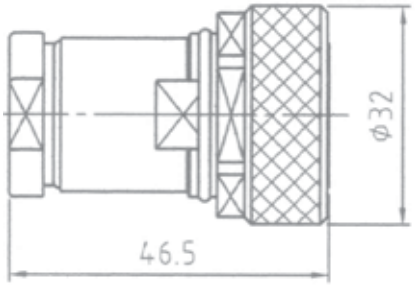
environmental specification

WATER TIGHTNESS	IP 67 (IEC592)
GENERAL	Halogen free / non corrosive (IEC754-1/2), UV resistant
PACKING	With protective caps

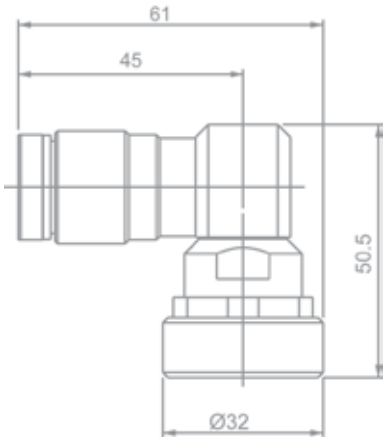
GSM APPLICATIONS

MALE CONNECTORS

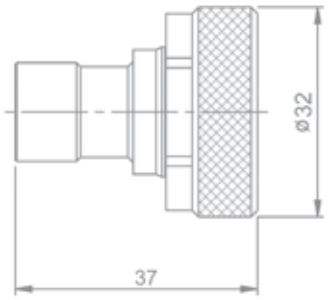
TYPE	**CEL 716-50-9-5**
CODE	90736
WEIGHT	95 g
CABLE TYPE	CELLFLEX SCF 12-50, HELIAX FSJ4-50B, RFF 1/2”-50, SUCOFEED 1/2” HF, EUPEN - 5092
REMARK	Clamp type



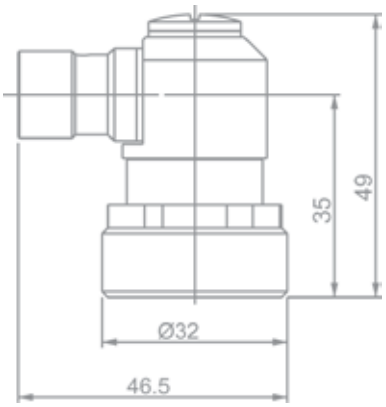
TYPE	**CEL 50-16-791**
CODE	95575
WEIGHT	197 g
CABLE TYPE	CELLFLEX SCF 12-50, HELIAX FSJ4-50B, RFF 1/2”-50, SUCOFEED 1/2” HF, EUPEN - 5092
REMARK	Right angle connector, clamp type



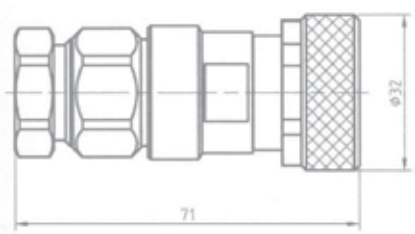
TYPE	**CEL 50-16-661**
CODE	91686
WEIGHT	53 g
CABLE TYPE	CELLFLEX SCF 12-50, HELIAX FSJ4-50B, RFF 1/2”-50, SUCOFEED 1/2” HF, EUPEN-5092
REMARK	Soldering type



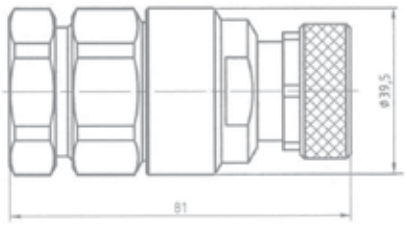
TYPE	**CEL 50-16-676**
CODE	94153
WEIGHT	138 g
CABLE TYPE	CELLFLEX SCF 12-50, HELIAX FSJ4-50B, RFF 1/2”-50, SUCOFEED 1/2” HF, EUPEN-5092
REMARK	Right angle connector, soldering type



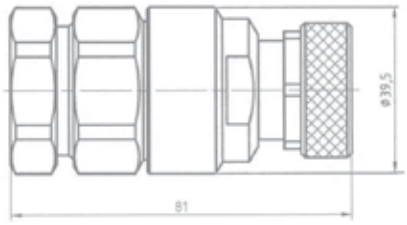
TYPE	**CEL 50-16-772**
CODE	94747
WEIGHT	162 g
CABLE TYPE	CELLFLEX LCF 12-50, HELIAX LDF4-50A, RF 1/2”-50, SUCOFEED 1/2”, EUPEN - 5128
REMARK	Clamp type



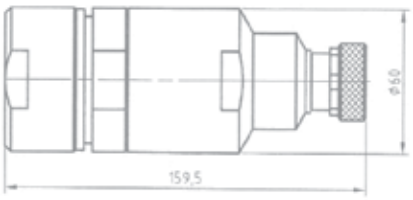
TYPE	**CEL 50-16-774**
CODE	94749
WEIGHT	302 g
CABLE TYPE	CELLFLEX LCF 78-50, HELIAX LDF5-50A, RF 7/8”-50, SUCOFEED 7/8”, EUPEN - 5228
REMARK	Clamp type



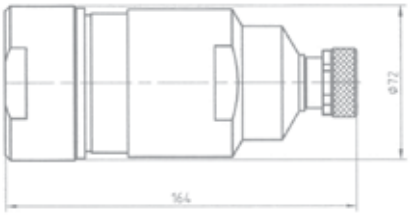
TYPE	**CEL 50-16-794**
CODE	96692
WEIGHT	302 g
CABLE TYPE	HELIAX VXL5-50, RFE 7/8”-50
REMARK	Clamp type



TYPE	**CEL 50-16-776**
CODE	94751
WEIGHT	1505 g
CABLE TYPE	CELLFLEX LCFS 114-50, HELIAX LDF6-50, RF 1 1/4”-50, SUCOFEED 1 1/4”, EUPEN - 5328GL
REMARK	Clamp type

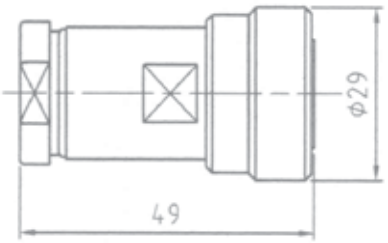


TYPE	**CEL 50-16-778**
CODE	94753
WEIGHT	1890 g
CABLE TYPE	CELLFLEX LCF 158-50, HELIAX LDF7-50A, RF 1 5/8”-50, SUCOFEED 1 5/8”, EUPEN - 5438
REMARK	Clamp type

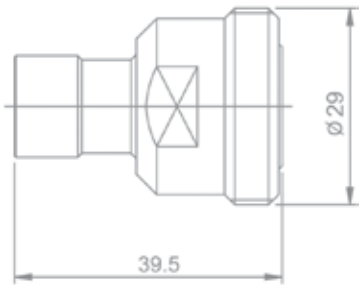


FEMALE CONNECTORS

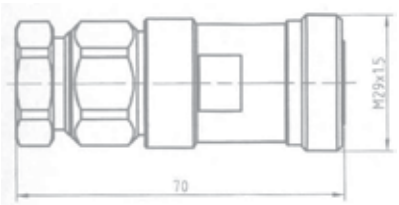
TYPE	**CEL 716-50-9-4**
CODE	91467
WEIGHT	103 g
CABLE TYPE	CELLFLEX SCF 12-50, HELIAX FSJ4-50B, RFF 1/2”-50, SUCOFEED 1/2” HF, EUPEN - 5092
REMARK	Clamp type



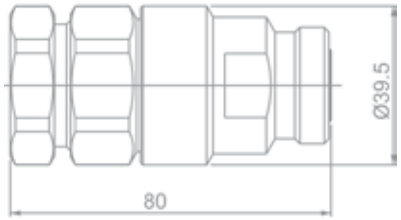
TYPE	**CEL 50-16-611**
CODE	91685
WEIGHT	62 g
CABLE TYPE	CELLFLEX SCF 12-50, HELIAX FSJ4-50B, RFF 1/2”-50, SUCOFEED 1/2” HF, EUPEN-5092
REMARK	Soldering type

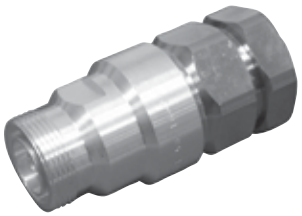


TYPE	**CEL 50-16-771**
CODE	94746
WEIGHT	157 g
CABLE TYPE	CELLFLEX LCF 12-50, HELIAX LDF4-50A, RF 1/2”-50, SUCOFEED 1/2”, EUPEN - 5128
REMARK	Clamp type

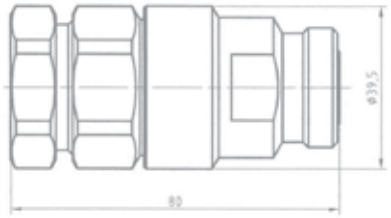


TYPE	**CEL 50-16-773**
CODE	94748
WEIGHT	314 g
CABLE TYPE	CELLFLEX LCF 78-50, HELIAX LDF5-50A, RF 7/8”-50, SUCOFEED 7/8”, EUPEN - 5228
REMARK	Clamp type

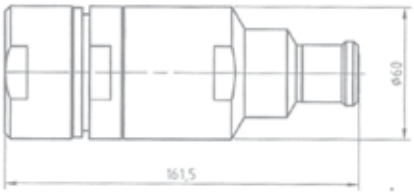
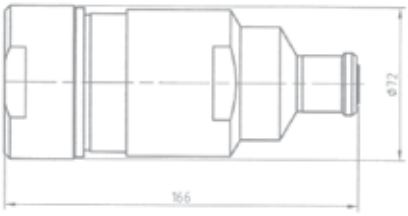




TYPE	**CEL 50-16-793**
CODE	96691
WEIGHT	314 g
CABLE TYPE	HELIAX VXL5-50, RFE 7/8”-50
REMARK	Clamp type



TYPE	**CEL 50-16-775**
CODE	94750
WEIGHT	1500 g
CABLE TYPE	CELLFLEX LCFS 114-50, HELIAX LDF6-50, RF 1 1/4”-50, SUCOFEED 1 1/4”, EUPEN - 5328GL
REMARK	Clamp type



TYPE	**CEL 50-16-777**
CODE	94752
WEIGHT	1880 g
CABLE TYPE	CELLFLEX LCF 158-50, HELIAX LDF5-50A, RF 1 5/8”-50, SUCOFEED 1 5/8”, EUPEN - 5438
REMARK	Clamp type