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Habia Cable

Speedflex®

Halogen free coaxial cables

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Habia Cable

Speedflex™

HFI 90 L dielectric, HFS 80 T sheathed coaxials, LSZH
Intended for use primarily as a transmission line in high frequency applications

50 Ω

Order reference		Core			Finished cable			Electrical		
		Silver Plated Copper (SPC)		Foamed HFI 90 L	SPC braid	HFS 80 T	Weight	Cap.	DC current rating	Voltage
		Stranding	Conductor	Dielectric	Shield/s	Sheath/s			In free air at 40°C	
Description	Article Number	# x mm	Nom Ø	Nom Ø	Nom Ø	Nom Ø	Nom g/m	pF/m	Amps	V AC rms
Speedflex 142	3400014200	Solid	0.94	2.95	1st: 3.50 2nd: 4.10	5.10	56	95	14	1,600
Speedflex 295	3400029500	Solid	1.12	2.95	1st: 3.50 2nd: 4.10	5.10	54	82	18	400
Speedflex 316	3400031600	7 x 0.18	0.54	1.52	2.00	2.70	13	95	6	1,000
Speedflex 316d	3400031610	7 x 0.18	0.54	1.52	1st: 2.00 2nd: 2.45	3.10	20	94	6	1,000
Speedflex 375	3400037500	Solid	1.40	3.75	1st: 4.20 2nd: 4.70	5.70	64	82	24	500
Speedflex 393	3400039300	7 x 0.81	2.43	7.24	1st: 8.00 2nd: 8.70	10.10	180	95	42	4,400
Speedflex 400	3400040000	19 x 0.20	0.98	2.95	1st: 3.50 2nd: 4.10	5.10	55	95	13	1,500
Speedflex 585	3400058500	Solid	2.22	5.85	1st: 6.55 2nd: 7.25	9.00	144	82	42	750

75 Ω

Order reference		Core			Finished cable			Electrical		
		Silver Plated Copper Covered Steel (SCCS)		Foamed HFI 90 L	SPC braid	HFS 80 T	Weight	Cap.	DC current rating	Voltage
		Stranding	Conductor	Dielectric	Shield/s	Sheath/s			In free air at 40°C	
Description	Article Number	# x mm	Nom Ø	Nom Ø	Nom Ø	Nom Ø	Nom g/m	pF/m	Amps	V AC rms
Speedflex 179	3400017900	7 x 0.10	0.30	1.60	2.05	2.60	12	64	3	900

Attenuation (dB/100m @ 20°C) and power ratings (Watts @ 40°C)																
Frequency	Speedflex 142		Speedflex 295		Speedflex 316/d		Speedflex 375		Speedflex 393		Speedflex 400		Speedflex 585		Speedflex 179	
MHz	dB	W	dB	W	dB	W	dB	W	dB	W	dB	W	dB	W	dB	W
30	8	593	6	666	16	164	5	895	4	1,990	12	520	4	1,908	15	155
100	15	325	12	365	29	90	10	490	7	1,090	23	285	8	1,045	28	85
400	30	163	23	183	59	45	20	245	14	545	46	143	16	523	56	43
1,000	48	103	37	115	93	28	32	155	23	345	72	90	26	330	88	27
2,500	77	65	59	73	148	18	51	98	37	218	115	57	42	209	140	17

Cable identification	
Dielectric	Natural
Sheath	Black
Marking	Habia Cable - Description - Article No. - Year-Week - Batchcode

Characteristics and key properties										
CE	UK CA	RoHS REACH LVD	**VoP** ~70%	**Current** rating IEC 60287	**Fluid** resistant Water		**Flame** resistant IEC 60332-1-2	**Halogen** free IEC 60754-1 IEC 60754-2	**Smoke** free IEC 61034-2	**MBR** Fixed = 5x Ø Flexing = 10x Ø
								Temp low **-25°C**	**Temp** >20,000 hrs **+70°C**	**Temp** peak **+80°C**

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Speedflex is a completely halogen-free and environmentally-friendly alternative to standard RG coaxial cables.

Speedflex®

Halogen-Free Coaxial Cable

Engineering Data

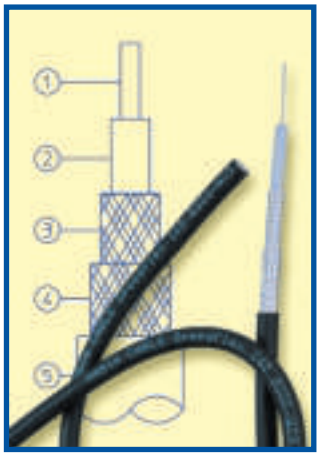
Item	Material	Speedflex 142 Diam *(mm)*	Speedflex 178 Diam *(mm)*	Speedflex 179 Diam *(mm)*	Speedflex 316 Diam *(mm)*	Speedflex 316D Diam *(mm)*	Speedflex 393 Diam *(mm)*	Speedflex 400 Diam *(mm)*	Speedflex 295 Diam *(mm)*	Speedflex 375 Diam *(mm)*	Speedflex 585 Diam *(mm)*
① Conductor	Solid or stranded silver-plated copper, non-magnetic	0.94	n/a	n/a	0.54	0.54	2.43	0.98	1.12	1.40	2.22
or	Solid or stranded, silver-plated copper-covered steel	n/a	0.30	0.30	n/a	n/a	n/a	n/a	n/a	n/a	n/a
② Dielectric	Polyethylene Foam	2.95	0.85	1.60	1.52	1.52	7.24	2.95	2.95	3.75	5.85
③ Outer conductor	Single braid of silver-plated copper wires	n/a	1.30	2.05	2.00	n/a	n/a	n/a	n/a	n/a	n/a
④ or	Double braid of silver-plated copper wires	4.10	n/a	n/a	n/a	2.45	8.70	4.10	4.10	4.70	7.25
⑤ Jacket	Low-smoke, zero-halogen Black	5.10	1.90	2.60	2.70	3.10	10.10	5.10	5.10	5.70	9.00

Note: all figures are nominal unless otherwise specified

Introduction

The Speedflex range of cables has been developed to meet the rapidly changing demands of the telecommunications industry. High electrical performance is required, together with halogen-free, flame-retardant materials. Speedflex cables use both low-foamed and high-foamed polyethylene dielectrics with a low-smoke, zero-halogen jacket in order to meet these demands.

Low-foamed dielectrics achieve the same dielectric constant as PTFE. The resultant types have the same dimensions and electrical performance as their RG equivalent.
High-foamed dielectrics give improved electrical performance over low-foamed types.



Features & Benefits

Up to 3 GHz operating frequency
Use standard RG connectors
Improved flexibility
Good shielding properties
Good attenuation
Non-magnetic construction as standard
UV Sunlight resistant 720h passes UL1581

Custom Design

Variations on our standard versions are available on request

* Cross-linked versions to extend operating temperature
* UL versions to meet the requirements of the US market
* Optional jacket with blue stripe to distinguish from standard RG coaxials

Connectors

Low-foamed versions use standard RG connectors.
For high-foamed versions, details are available on request.

Cable Marking

Jackets of all cables are marked with type and date of manufacture

Typical applications

Drop-in, jumper assemblies
Short antenna feeders

All applications where a standard RG coaxial cable can be used, with additional benefits of halogen-free and flame-retardant materials being used.

Custom Design

Speedflex is a completely halogen-free plug-in replacement for standard RG coaxial types.
Other variations can be provided on request.

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Speedflex® 142

Halogen-Free Coaxial Cable

Engineering Data

Cable Design

		Ø (mm)
Centre conductor	solid silver-plated copper	0.94
Dielectric	low-foamed polyethylene	2.95
Outer conductor	a) silver-plated copper wire braid coverage min 90%	
	b) silver-plated copper wire braid coverage min 90%	4.10
Jacket	Low-smoke, zero-halogen, black	5.10
Marking	Habia Cable Speedflex 142, and date of manufacture (plus optional blue longitudinal stripe)	

Electrical Data

Impedance	50 ± 2 Ω
Capacitance	95 pF/m
Velocity of signal propagation	70 %
Signal delay	4.7 ns/m
Working voltage, maximum	1600V
Shielding effectiveness	>90 dB
Attenuation, typical values	see table
Power, typical values	see table
DC resistance, inner conductor	25 Ω/km
DC resistance, outer conductor	8 Ω/km

Environmental & Mechanical

Minimum bend radius, single bend	25 mm
Minimum bend radius, multiple bends	50 mm
Weight	56 kg/km
Operating temperature	-40 to +80 °C
Flame resistance, passes	IEC 60332-1, UL1581 VW-1
Smoke, passes	IEC 61034-2
Halogens, passes	IEC 60754-2
Radiation resistance	10^5 Gy

Connectors

Compatible with all standard connector types for M17/60-RG142 (RG142 B/U) and M17/158-00001.

Cable Attenuation

Nominal values @ +25°C ambient temperature

Frequency *MHz*	Attenuation *dB/100m*
150	19
220	23
450	34
900	51
1500	69
1800	78
2000	83
2500	95

Average Power

Ambient temperature 40°C at sea level & VSWR1.0

Frequency *MHz*	Power *W*
150	220
220	180
450	125
900	90
1500	65
1800	60
2000	55
2500	50

Additional Information

Speedflex 142 UL 1375

UL version in accordance with AWM style 1375.

Working voltage	30 V
Operating temperature	-40 to +60 °C
Flame rating	UL 1581 VW-1
Our file no	E75929

Speedflex 142 XL

Cross-linked version

Operating temperature	-40 to +100°C

Dimensional Equivalents:

MIL-C-17/60 - RG 142 (RG142B/U)
M17/158-00001
low-smoke, flame-retardant, non-magnetic

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Speedflex® 178

Halogen-Free Coaxial Cable

Engineering Data

Cable Design

		Ø (mm)
Centre cond.	solid, silver-plated copper-covered steel	0.30
Dielectric	low-foamed polyethylene	0.85
Outer conductor	silver-plated copper wire braid, overall coverage min 90%	1.30
Jacket	low-smoke, zero-halogen, black	1.90
Marking	Habia Cable Speedflex 178, and date of manufacture (plus optional blue longitudinal stripe)	

Electrical Data

Impedance	50 ± 2 Ω
Capacitance	95 pF/m
Velocity of signal propagation	70 %
Signal delay	4.7 ns/m
Working voltage, maximum	500V
Shielding effectiveness	>90 dB
Attenuation, typical values	see table
Power, typical values	see table
DC resistance, inner conductor	802 Ω/km
DC resistance, outer conductor	61 Ω/km

Environmental & Mechanical

Minimum bend radius, single bend	6 mm
Minimum bend radius, multiple bends	20 mm
Weight	6.9 kg/km
Operating temperature	-40 to +80 °C
Flame resistance, passes	IEC 60332-1, UL1581 VW-1
Smoke, passes	IEC 61034-2
Halogens, passes	IEC 60754-2
Radiation resistance	10^5 Gy

Connectors

Compatible with all standard connector types for M17/93-RG178 (RG178 B/U) and M17/93-00001, M17/169-00001.

Cable Attenuation

Nominal values @ +25°C ambient temperature

Frequency *MHz*	Attenuation *dB/100m*
150	48.5
220	59
450	85
900	123
1500	160
1800	175
2000	185
2500	206

Average Power

Ambient temperature 40°C at sea level & VSWR1.0

Frequency *MHz*	Power *W*
150	34
220	28
450	20
900	15
1500	11
1800	10
2000	9
2500	8

Additional Information

Speedflex 178 UL 1375

UL version in accordance with AWM style 1375.

Working voltage	30 V
Operating temperature	-40 to +60°C
Flame rating	UL 1581 VW-1
Our file no	E75929

Speedflex 178 XL

Cross-linked version

Operating temperature	-40 to +100°C

Dimensional Equivalents:

MIL-C-17/93 - RG 178 (RG178B/U)
M17/93-00001, M17/169-00001
low-smoke, flame-retardant

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Speedflex® 179

Halogen-Free Coaxial Cable

Engineering Data

Cable Design

	Ø (mm)
Centre conductor ..... stranded silver-plated ..... copper-covered steel (7/33)	0.30
Dielectric ..... low-foamed polyethylene	1.60
Outer conductor ..... silver-plated copper wire braid ..... coverage min 90%	2.05
Jacket ..... low-smoke, zero-halogen, black	2.60
Marking ..... Habia Cable Speedflex 179, ... and date of manufacture ..... (plus optional blue longitudinal stripe)	

Electrical Data

Impedance .....75 ± 3 Ω
Capacitance .....64 pF/m
Velocity of signal propagation .....70 %
Signal delay .....4 ns/m
Working voltage, maximum 900V
Shielding effectiveness .....>90 dB
Attenuation, typical values .....see table
Power, typical values .....see table
DC resistance, inner conductor .....802 Ω/km
DC resistance, outer conductor .....37 Ω/km

Environmental & Mechanical

Minimum bend radius, single bend .....8 mm
Minimum bend radius, multiple bends .....30 mm
Weight .....11.6 kg/km
Operating temperature .....-40 to +80 °C
Flame resistance, passes .....IEC 60332-1, UL1581 VW-1
Smoke, passes .....IEC 61034-2
Halogens, passes .....IEC 60754-2
Radiation resistance .....10^5 Gy

Connectors

Compatible with all standard connector types for M17/94-RG179 (RG 179 B/U) and M17/136-00001.

Cable Attenuation

Nominal values @ +25°C ambient temperature

Frequency *MHz*	Attenuation *dB/100m*
150	30
220	36
450	51
900	72
1500	93
1800	105
2000	112
2500	127

Average Power

Ambient temperature 40°C at sea level & VSWR1.0

Frequency *MHz*	Power *W*
150	60
220	50
450	35
900	25
1500	20
1800	16
2000	15
2500	13

Additional Information

Speedflex 179 UL 1375

UL version in accordance with AWM style 1375.
Working voltage .....30 V
Operating temperature .....-40 to +60°C
Flame rating .....UL 1581 VW-1
Our file no E75929

Speedflex 179 XL

Cross-linked version
Operating temperature .....-40 to +100°C

Dimensional Equivalents:
MIL-C-17/60 - RG 142 (RG142B/U)
M17/158-00001
low-smoke, flame-retardant

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Speedflex® 295

Halogen-Free Coaxial Cable

Engineering Data

Cable Design

		Ø (mm)
Centre cond	solid silver-plated copper	1.12
Dielectric	high-foamed polyethylene	2.95
Outer conductor	a) silver-plated copper wire braid coverage min 90%	
	b) silver-plated copper wire braid coverage min 90%	4.10
Jacket	Low-smoke, zero-halogen, black	5.10
Marking	Habia Cable Speedflex 295, and date of manufacture (plus optional blue longitudinal stripe)	

Electrical Data

Impedance	50 ± 2 Ω
Capacitance	82 pF/m
Velocity of signal propagation	82 %
Signal delay	4 ns/m
Working voltage, maximum	00V
Shielding effectiveness	>90 dB
Attenuation, typical values	see table
Power, typical values	see table
DC resistance, inner conductor	17.6 Ω/km
DC resistance, outer conductor	8 Ω/km

Environmental & Mechanical

Minimum bend radius, single bend	25 mm
Minimum bend radius, multiple bends	75 mm
Weight	54 kg/km
Operating temperature	-40 to +80 °C
Flame resistance, passes	IEC 60332-1, UL1581 VW-1
Smoke, passes	IEC 61034-2
Halogens, passes	IEC 60754-2
Radiation resistance	10^5 Gy

Connectors

Please ask for details

Cable Attenuation

Nominal values @ +25°C ambient temperature

Frequency *MHz*	Attenuation *dB/100m*
150	14
220	17
450	25
900	36
1500	48
1800	53
2000	57
2500	65

Average Power

Ambient temperature 40°C at sea level & VSWR1.0

Frequency *MHz*	Power *W*
150	230
220	185
450	125
900	85
1500	65
1800	60
2000	55
2500	50

Additional Information

Speedflex 295 UL 1375

UL version in accordance with AWM style 1375.

Working voltage	30 V
Operating temperature	-40 to +60°C
Flame rating	UL 1581 VW-1
Our file no	E75929

Speedflex 295 XL

Cross-linked version

Operating temperature	-40 to +100°C

Features & Benefits

low-smoke, flame-retardant, non-magnetic
halogen-free, low-loss version

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Habia Cable

Speedflex® 316

Halogen-Free Coaxial Cable

Engineering Data

Cable Design

		Ø (mm)
Centre cond	silver-plated copper, stranded (7/33)	0.54
Dielectric	low-foamed polyethylene	1.52
Outer conductor	silver-plated copper wire braid coverage min 90%	2.00
Jacket	low-smoke, zero-halogen, black	2.70
Marking	Habia Cable Speedflex 316, and date of manufacture (plus optional blue longitudinal stripe)	

Electrical Data

Impedance	50 ± 2 Ω
Capacitance	95 pF/m
Velocity of signal propagation	70 %
Signal delay	4.7 ns/m
Working voltage, maximum	1000V
Shielding effectiveness	>90 dB
Attenuation, typical values	see table
Power, typical values	see table
DC resistance, inner conductor	234 Ω/km
DC resistance, outer conductor	37 Ω/km

Environmental & Mechanical

Minimum bend radius, single bend	9 mm
Minimum bend radius, multiple bends	30 mm
Weight	13 kg/km
Operating temperature	-40 to +80 °C
Flame resistance, passes	IEC 60332-1, UL1581 VW-1
Smoke, passes	IEC 61034-2
Halogens, passes	IEC 60754-2
Radiation resistance	10^5 Gy

Connectors

Compatible with all standard connector types for M17/113-RG316 (RG 316 U) and M17/172-00001 and M17/138/00001.

Cable Attenuation

Nominal values @ +25°C ambient temperature

Frequency *MHz*	Attenuation *dB/100m*
150	33
220	40
450	57
900	83
1500	113
1800	126
2000	135
2500	152

Average Power

Ambient temperature 40°C at sea level & VSWR1.0

Frequency *MHz*	Power *W*
150	70
220	55
450	40
900	30
1500	21
1800	19
2000	18
2500	15

Additional Information

Speedflex 316 UL 1375

UL version in accordance with AWM style 1375.

Working voltage	30 V
Operating temperature	-40 to +60°C
Flame rating	UL 1581 VW-1
Our file no	E75929

Speedflex 316 XL

Cross-linked version

Operating temperature	-40 to +100°C

Dimensional Equivalents:

MIL-C-17/113 - RG 316 (RG 316 U)
M17/172-00001 & M17/138-00001
low-smoke, flame-retardant, non-magnetic

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Speedflex® 316d

Halogen-Free Coaxial Cable

Engineering Data

Cable Design

		Ø (mm)
Centre cond	silver-plated copper, stranded (7/33)	0.54
Dielectric	low-foamed polyethylene	1.52
Outer conductor	a) silver-plated copper wire braid coverage min 90%	
	b) silver-plated copper wire braid coverage min 90%	2.45
Jacket	Low-smoke, zero-halogen, black	3.10
Marking	Habia Cable Speedflex 316d, and date of manufacture (plus optional blue longitudinal stripe)	

Electrical Data

Impedance ..... 50 ± 2 Ω
Capacitance ..... 95 pF/m
Velocity of signal propagation ..... 70 %
Signal delay ..... 4.7 ns/m
Working voltage, maximum 1000V
Shielding effectiveness ..... >90 dB
Attenuation, typical values ..... see table
Power, typical values ..... see table
DC resistance, inner conductor ..... 234 Ω/km
DC resistance, outer conductor ..... 17 Ω/km

Environmental & Mechanical

Minimum bend radius, single bend ..... 9 mm
Minimum bend radius, multiple bends ..... 30 mm
Weight ..... 20 kg/km
Operating temperature ..... -40 to +80 °C
Flame resistance, passes ..... IEC 60332-1, UL1581 VW-1
Smoke, passes ..... IEC 61034-2
Halogens, passes ..... IEC 60754-2
Radiation resistance ..... 10^5 Gy

Connectors

Compatible with all standard connector types for M17/152/00001.

Cable Attenuation

Nominal values @ +25°C ambient temperature

Frequency *MHz*	Attenuation *dB/100m*
150	33
220	40
450	57
900	83
1500	113
1800	126
2000	135
2500	152

Average Power

Ambient temperature 40°C at sea level & VSWR1.0

Frequency *MHz*	Power *W*
150	70
220	55
450	40
900	30
1500	21
1800	19
2000	18
2500	15

Additional Information

Speedflex 316d UL 1375

UL version in accordance with AWM style 1375.
Working voltage ..... 30 V
Operating temperature ..... -40 to +60 °C
Flame rating ..... UL 1581 VW-1
Our file no E75929

Speedflex 316d XL

Cross-linked version
Operating temperature ..... -40 to +100 °C

Dimensional Equivalents:
M17/152-00001
low-smoke, flame-retardant, non-magnetic

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Speedflex® 375

Halogen-Free Coaxial Cable

Engineering Data

Cable Design

		Ø (mm)
Centre cond	solid silver-plated copper	1.40
Dielectric	high-foamed polyethylene	3.75
Outer conductor	a) silver-plated copper wire braid coverage min 90%	
	b) silver-plated copper wire braid coverage min 90%	4.70
Jacket	low-smoke, zero-halogen, black	5.70
Marking	Habia Cable Speedflex 375, and date of manufacture (plus optional blue longitudinal stripe)	

Electrical Data

Impedance ....50 ± 2 Ω
Capacitance ....82 pF/m
Velocity of signal propagation ....82 %
Signal delay ....4 ns/m
Working voltage, maximum 500V
Shielding effectiveness ....>90 dB
Attenuation, typical values ....see table
Power, typical values ....see table
DC resistance, inner conductor ....11.4 Ω/km
DC resistance, outer conductor ....8 Ω/km

Environmental & Mechanical

Minimum bend radius, single bend ....29 mm
Minimum bend radius, multiple bends ....85 mm
Weight ....64 kg/km
Operating temperature ....-40 to +80 °C
Flame resistance, passes ....IEC 60332-1, UL1581 VW-1
Smoke, passes ....IEC 61034-2
Halogens, passes ....IEC 60754-2
Radiation resistance ....10^5 Gy

Connectors

Please ask for details.

Cable Attenuation

Nominal values @ +25°C ambient temperature

Frequency *MHz*	Attenuation *dB/100m*
150	11.5
220	14
450	20
900	29
1500	38.5
1800	42.5
2000	46
2500	52

Average Power

Ambient temperature 40°C at sea level & VSWR1.0

Frequency *MHz*	Power *W*
150	305
220	250
450	165
900	110
1500	85
1800	75
2000	70
2500	60

Additional Information

Speedflex 375 UL 1375

UL version in accordance with AWM style 1375.
Working voltage ....30 V
Operating temperature ....-40 to +60°C
Flame rating ....UL 1581 VW-1
Our file no E75929

Speedflex 375 XL

Cross-linked version
Operating temperature ....-40 to +100°C

Features & Benefits

low-smoke, flame-retardant, non-magnetic
halogen-free, low-loss version

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Habia Cable

Speedflex® 393

Halogen-Free Coaxial Cable

Engineering Data

Cable Design

		Ø (mm)
Centre cond	silver-plated copper, stranded (7/20)	2.43
Dielectric	low-foamed polyethylene	7.24
Outer cond	a) silver-plated copper wire braid coverage min 90%	
	b) silver-plated copper wire braid coverage min 90%	8.70
Jacket	low-smoke, zero-halogen, black	10.10
Marking	Habia Cable Speedflex 393, and date of manufacture (plus optional blue longitudinal stripe)	

Electrical Data

Impedance	50 ± 2 Ω
Capacitance	95 pF/m
Velocity of signal propagation	70 %
Signal delay	4.7 ns/m
Working voltage, maximum	4400V
Shielding effectiveness	>90 dB
Attenuation, typical values	see table
Power, typical values	see table
DC resistance, inner conductor	5 Ω/km
DC resistance, outer conductor	4 Ω/km

Environmental & Mechanical

Minimum bend radius, single bend	50 mm
Minimum bend radius, multiple bends	100 mm
Weight	180 kg/km
Operating temperature	-40 to +80 °C
Flame resistance, passes	IEC 60332-1, UL1581 VW-1
Smoke, passes	IEC 61034-2
Halogens, passes	IEC 60754-2
Radiation resistance	10^5 Gy

Connectors

Compatible with all standard connector types
M17/127- RG393 (RG 393 U) and M17/174-00001.

Cable Attenuation

Nominal values @ +25°C ambient temperature

Frequency *MHz*	Attenuation *dB/100m*
150	10
220	13
450	17
900	26
1500	34
1800	38
2000	41
2500	50

Average Power

Ambient temperature 40°C at sea level & VSWR1.0

Frequency *MHz*	Power *W*
150	700
220	570
450	390
900	265
1500	200
1800	180
2000	170
2500	150

Additional Information

Speedflex 393 UL 1375

UL version in accordance with AWM style 1375.

Working voltage	30 V
Operating temperature	-40 to +60°C
Flame rating	UL 1581 VW-1
Our file no	E75929

Speedflex 393 XL

Cross-linked version

Operating temperature	-40 to +100°C

Dimensional Equivalents:
MIL-C-17/127 - RG 393 (RG 393 U)
M17/174-00001
low-smoke, flame-retardant, non-magnetic

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Habia Cable

www.tt-telecom.ru

Speedflex® 400

Halogen-Free Coaxial Cable

Engineering Data

Cable Design

		Ø (mm)
Centre cond	silver-plated copper, stranded (19/32)	0.98
Dielectric	low-foamed polyethylene	2.95
Outer conductor	a) silver-plated copper wire braid coverage min 90%	
	b) silver-plated copper wire braid coverage min 90%	4.10
Jacket	Low-smoke, zero-halogen, black	5.10
Marking	Habia Cable Speedflex 400, and date of manufacture (plus optional blue longitudinal stripe)	

Electrical Data

Impedance ..... 50 ± 2 Ω
Capacitance ..... 95 pF/m
Velocity of signal propagation ..... 70 %
Signal delay ..... 4.7 ns/m
Working voltage, maximum 1500V
Shielding effectiveness ..... >90 dB
Attenuation, typical values ..... see table
Power, typical values ..... see table
DC resistance, inner conductor ..... 30 Ω/km
DC resistance, outer conductor ..... 8 Ω/km

Environmental & Mechanical

Minimum bend radius, single bend ..... 25 mm
Minimum bend radius, multiple bends ..... 50 mm
Weight ..... 55 kg/km
Operating temperature ..... -40 to +80 °C
Flame resistance, passes ..... IEC 60332-1, UL1581 VW-1
Smoke, passes ..... IEC 61034-2
Halogens, passes ..... IEC 60754-2
Radiation resistance ..... 10^5 Gy

Connectors

Compatible with all standard connector types
M17/28-RG400 (RG 400 /U) and M17/175-00001.

Cable Attenuation

Nominal values @ +25°C ambient temperature

Frequency *MHz*	Attenuation *dB/100m*
150	20
220	25
450	36
900	53
1500	71
1800	79
2000	84
2500	96

Average Power

Ambient temperature 40°C at sea level & VSWR1.0

Frequency *MHz*	Power *W*
150	200
220	165
450	115
900	80
1500	60
1800	55
2000	50
2500	45

Additional Information

Speedflex 400 UL 1375

UL version in accordance with AWM style 1375.
Working voltage ..... 30 V
Operating temperature ..... -40 to +60 °C
Flame rating ..... UL 1581 VW-1
Our file no E75929

Speedflex 400 XL

Cross-linked version
Operating temperature ..... -40 to +100 °C

Dimensional Equivalents:
M17/28-RG400 (RG 400/U)
M17/175-00001
low-smoke, flame-retardant, non-magnetic

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Habia Cable

Speedflex® 585

Halogen-Free Coaxial Cable

Engineering Data

Cable Design

		Ø (mm)
Centre cond	solid silver-plated copper	2.22
Dielectric	high-foamed polyethylene	5.85
Outer conductor	a) silver-plated copper wire braid coverage min 90%	
	b) silver-plated copper wire braid coverage min 90%	7.25
Jacket	low-smoke, zero-halogen, black	9.00
Marking	Habia Cable Speedflex 585, and date of manufacture (plus optional blue longitudinal stripe)	

Electrical Data

Impedance	50 ± 2 Ω
Capacitance	82 pF/m
Velocity of signal propagation	82 %
Signal delay	4 ns/m
Working voltage, maximum	750V
Shielding effectiveness	>90 dB
Attenuation, typical values	see table
Power, typical values	see table
DC resistance, inner conductor	4.5 Ω/km
DC resistance, outer conductor	4 Ω/km

Environmental & Mechanical

Minimum bend radius, single bend	45 mm
Minimum bend radius, multiple bends	135 mm
Weight	144 kg/km
Operating temperature	-40 to +80 °C
Flame resistance, passes	IEC 60332-1, UL1581 VW-1
Smoke, passes	IEC 61034-2
Halogens, passes	IEC 60754-2
Radiation resistance	10^5 Gy

Connectors

Please ask for details.

Cable Attenuation

Nominal values @ +25°C ambient temperature

Frequency *MHz*	Attenuation *dB/100m*
150	8
220	10
450	15
900	21
1500	29
1800	33
2000	36
2500	42

Average Power

Ambient temperature 40°C at sea level & VSWR1.0

Frequency *MHz*	Power *W*
150	570
220	455
450	300
900	195
1500	140
1800	125
2000	115
2500	100

Additional Information

Speedflex 585 UL 1375

UL version in accordance with AWM style 1375.

Working voltage	30 V
Operating temperature	-40 to +60°C
Flame rating	UL 1581 VW-1
Our file no	E75929

Speedflex 585 XL

Cross-linked version

Operating temperature	-40 to +100°C

Features & Benefits

low-smoke, flame-retardant, non-magnetic
halogen-free, low-loss version

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