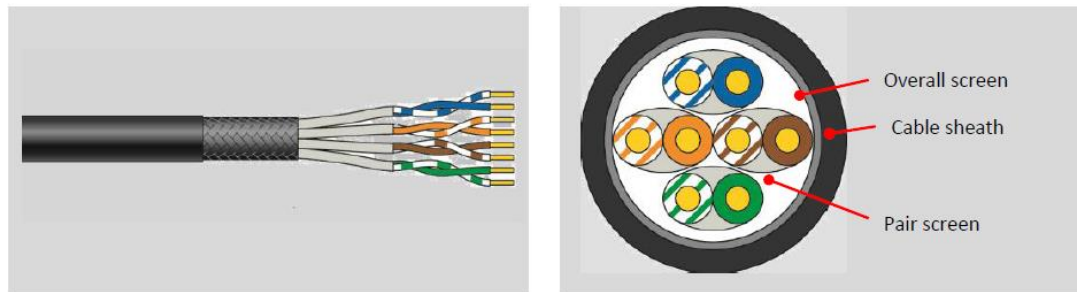


# R&Mindustry S/FTP Cat.7 900 MHz



<b>Cable reference</b>	<b>Part number</b>	R823883
	<b>Source code</b>	B
	<b>R&amp;M positioning</b>	Cat.7

<b>Cable construction</b>	<b>Conductor</b>	Plain solid copper wire AWG23 (0.56 mm)
	<b>Insulation</b>	Polyethylene $\leq \varnothing$ 1.45 mm
	<b>Twisting</b>	2 cores to the pair, WBC filled
	<b>Pair screen</b>	Alu / polyester tape
	<b>Cable lay up</b>	4 paires (PiMF) to the core,swellable yarns and tape
	<b>Overall screen</b>	Tin plated copper braid 30 % coverage)
	<b>Sheath</b>	LSZH, Black RAL 9005, UV stabilized



**Application**

Primary (Campus), Secondary (Riser), Tertiary (Horizontal)  
 IEEE 802.3 10Base-T; 100Base-TX; 1000Base-T; 10GBase-T  
 IEEE 802.5 16 MB; ISDN; TPDDI; ATM  
 IEEE 802.3af-2002: POE; IEEE 802.3at: POE+; IEEE 302.3.bt: 4PPOE  
 Cisco Universal Power Over Ethernet (UPOE and UPOE+)  
 Power over HDBaseT™ (PoH)  
**Indoor and outdoor installations, filled with compound to prevent water penetration**  
 Confirming to European regulation "CPR" EN 50575

**Standards**

ISO/IEC 11801 2<sup>nd</sup> ed.; EN 50288-4-1  
 IEC 61156-5; Power over Ethernet (PoE) Type 1-4

**Water penetration rating** IEC 60794-1-2F5, method B  
**Fire rating** LSZH  
 IEC 60332-1; IEC 60754-2;  
 Smoke classification: No  
 En50575; Eca; DOP E3502

<b>Technical Data</b>	<b>Cable designation</b>	Industry S/FTP Cat.7 900MHz 4PxAWG23
	<b>Packaging</b>	Drum 500 m
	<b>Outer diameter</b>	Nominal 8.5 mm
	<b>Weight</b>	73 kg / km
	<b>Thermal load</b>	1055 MJ / km
	<b>Segregation class</b>	d
	<b>Tensile force</b>	100 N

<b>Mechanical Properties</b>	<b>Bending radius</b>	$\geq 34$ mm during operation (without load)
		$\geq 68$ mm during installation (with load)
	<b>Temperature range</b>	During operation -40°C...+ 60°C
	During installation -10°C...+ 50°C	



Convincing cabling solutions

Datasheets may change without prior notice

20.06.2017 / V1.3 / Ri

R&Mindustry S/FTP Cat. 7 900MHz 4PxAWG23 LSZH Eca NVP=79% ISO/IEC 11801 B <batch no.> <dd/mm/yy> <meter> m

**Electrical Properties**  
(at 20°C ± 5°C)





<b>DC loop residue</b>		≤ 16.5 Ω / 100 m
<b>Resistance unbalance</b>		≤ 2 %
<b>Test voltage</b>	DC, 1 min, core/core	1000 V
<b>Insulation resistance</b>	500 V	≥ 2000 MΩ * km
<b>Capacitance</b>		43 pF / m nom.
<b>Capacitance unbalance</b>		≤ 1500 pF / km
<b>Mean characteristic impedance</b>		100 ± 5 Ω
<b>Nominal velocity of propagation</b>		Approx. 79 %
<b>Propagation delay</b>	At 1 MHz	≤ 550 ns / 100 m
<b>Delay skew</b>		≤ 10 ns / 100 m
<b>Coupling attenuation</b>		≥ 85 dB
<b>Transfer impedance</b>	At 1 MHz	≤ 15mΩ / m
	At 10 MHz	≤ 10 mΩ / m
	At 30 MHz	≤ 30 mΩ / m

**Typical transmission characteristics (at 20°C)**

f (MHz)	Attenuation (dB/100 m)		NEXT (dB)		PS-NEXT (dB)		ACR-F <sup>1)</sup> (dB/100 m)		PS-ACR-F <sup>1)</sup> (dB/100 m)		Return loss (dB)	
	Max	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ	Min	Typ
4	3.6	3.4	80	100	77	97	80	98	77	102	23	27
10	5.7	5.4	80	100	77	97	74	95	71	94	25	30
20	8.1	7.7	80	100	77	97	68	92	65	88	25	30
62.5	14.5	13.7	75.5	100	72.5	97	58.1	86	55.1	78	21.5	30
100	18.5	17.4	72.4	100	69.4	97	54	83	51	74	20.1	30
250	30.2	28.1	66.5	90	63.5	87	46	62	43	66	17.3	24
500	44.1	41.4	61.9	86	58.9	83	40	46	37	60	17.3	23
600	48.9	44.8	60.8	85	57.8	82	38.4	40	35.4	58	17.3	22
900	-	59.4	-	82	-	79	-	23	-	55	-	20

<sup>1)</sup> ACR-F was formerly known as ELFEXT.

**Recommended connection technique**

Module shielded		Perm. Link Class D	Perm. Link Class E	Channel Class E <sub>A</sub>	Perm. Link Class E <sub>A</sub>	Short Link Class E <sub>A</sub>
	Cat.5e	✓	-	-	-	-
	Cat.6 Real10	✓	✓	✓	-	-
	Cat.6 <sub>A</sub> EL	✓	✓	✓	✓	✓
	Cat.6 <sub>A</sub>	✓	✓	✓ Best in Class	✓ Best in Class	✓ Best in Class

(\*): see installation guide