



MOG 500hm coaxial cable RG58CU SHF1 unarmoured and armoured



Store at: -40 to +70 °C

Install at -10 to +50 °C **Bend minimum:** 15 times O.D.

Operate at -30 to +70 °C, **Bend minimum** 10 times O.D.

Crush maximum : 2000N/100mm

Impact maximum: 25J

Design

Conductor : stranded tinned copper 19x0.18mm

Dielectric : low density polyethylene Ø2.95 ± 0.10 mm

Screen 1 : aluminium/polyester/aluminium tape (width 15mm)

Screen 2 : tinned copper braid (coverage 93%)

Outer jacket (inner jacket for armoured version): black Fire Retardant and UV Resistant SHF1 material, LSZH

Marking : APS Finland - ww/yy - RG58 MARINE SHF1 - 50 OHM - IEC60332-3-24 Cat C - lot + meter

Armoured version is supplied with additional:

Armour : galvanized steel wire braid (tinned copper wire and bronze wire braid available upon request)

Outer jacket : black Fire Retardant and UV Resistant SHF1 thermoplastic material, LSZH

Marking : APS Finland - ww/yy - RG58 MARINE SHF1 "ARMOUR TYPE" - 50 OHM - IEC60332-3-24 Cat C - lot + meter

Environmental properties and Fire Performances

Degree of acidity of gases : IEC 60754-1, IEC 60754-2 (pH value $\geq 4,3$ and Conductivity $\leq 10\mu\text{S/mm}$)

Halogen acid gas : IEC 60754-1, IEC 60754-2 (Halogen acid gas emission $\leq 0.5\%$)

Smoke Emission : IEC 61034-2, EN 50268-2 (Transmittance) $\geq 60\%$

Toxicity of evolved gas : NES 713, CEI 20-37/7

Flame retardant : YES – IEC 60332-1-2

Fire retardant : YES – IEC 60332-3-22 Cat.A

Fire resistant : NO

Ozone resistant : NO – DIN VDE 0472 part 805 B

Weather resistant : YES – ASTM G 154, EN 11507

LSZH SHF2 : NO – IEC 60092-359:1987-03

Oil resistant : NO (oil, fuels and hydrocarbons) – IEC60811

MUD resistant : NO – NEK 606:2009

Water resistant : YES – IEC60502

Water penetration : YES – IEC 60794-1-2-F5-B (inner core only)

UV resistant : YES – ASTM-D-2565-92A

Electrical characteristics (IEC60092-350, EN 50290-2-23, IEC61196-1-108)

Impedance : $50 \pm 3 \Omega$

Capacitance : $100 \pm 9 \text{ pF/m}$

Velocity ratio : 66%

Inner conductor resistance @ 500V : $6 \pm 1.5 \Omega/\text{km}$ Braid resistance @ 500V : $4.4 \pm 1.5 \Omega/\text{km}$

Spark tension of the sheath : 5.5 kV

Attenuation

MHz	5	10	50	100	200	300	500	600	800	1000	1350	1500	1750	2150	2250	2500	2750	3000
dB	3.3	4.3	9.9	13.5	19.2	24.0	31.9	35.5	41.6	47.5	57.1	60.8	67.1	77.0	78.8	85.7	88.9	90.7

Return Loss (IEC61196-1-113)

MHz	30 ÷ 300	300 ÷ 600	600 ÷ 1000	1000 ÷ 2000	2000 ÷ 3000
dB	>28	>23	>20	>15	>15

Ordering and delivery information

Type	P/N	O.D [mm]	Weight [kg/km]	Packaging
RG58 Non-armoured	OC50R58U1	5.0	41.0	500m or 1000m (+/-5%)
RG58 GSWB armoured	OC50R58A1	10.0	115.0	500m (+/-5%)
RG58 TCWB armoured	OC50R58T1	10.0	110.0	500m (+/-5%)
RG58 BWB armoured	OC50R58B1	10.0	120.5	500m (+/-5%)

Other standards of reference

IEC 60092-370	Electrical installations in ships: Guidance on the selection of cables for telecommunication and data.
DNV TAP 827.10/20	Type Approval Program - coaxial cables
ABS SVR	Rules for building and classing. Steel Vessels.
ABS SMR	Rules for building and classing. Steel vessels under 90 meters.
MIL-C-17	General specification for radio frequency coaxial cables
IEC61196-1	Coaxial communication cables
EN 50290-2-23	Insulation materials for telecommunication cables

Every effort has been put so that this document is most reliable and free from errors. However, APS Cables & Connectors Oy (APSCC) cannot be considered responsible for any mistake in this document and users should consult APSCC for any information needed. APSCC reserves the right to make changes to the documents at any time, without prior notice.