



RAILWAY ETHERNET AND DATA CABLE

EN 45545-2 / IEC 61156 reference

4 orderable sizes

STANDARD EN 45545-2 / IEC 61156 reference	VOLTAGE CLASS Data circuit	TEMPERATURE CLASS -40 °C to +90 °C guide
CONDUCTOR Solid or stranded tinned copper data conductor	INSULATION / JACKET Halogen-free rail data outer sheath	

Construction

- 1 ■ **Conductor (per core)** – Solid or stranded tinned copper data conductor · 1 × Ø0.53 mm · IEC 60228 cl.1
- 2 ■ **Pair insulation** – Foam or solid data pair insulation
- 3 ■ **Filler** – Bedding / filler
- 4 ■ **Overall screen (OS)** – Al/polyester foil + drain
- 5 ■ **Sheath** – Halogen-free rail data outer sheath

Size selection — all available cross-sections

Cable reference	Onboard duty	Wall system	Core / pair design	Conductor size	Voltage class	Fire class	Max DC resistance at 20 °C	OD guide
EN 45545 rail Ethernet cable Data circuit Passenger information and CCTV data Cat5e 4 x 2 pair AWG24 0.34 mm ²	Passenger information and CCTV data	Halogen-free screened data sheath	Cat5e 4 x 2 pair AWG24	AWG24 / 0.22 mm ²	Data circuit	EN 45545-2 HL1 to HL3 data cable system	95 Ω/km	6.8 mm
EN 45545 rail Ethernet cable Data circuit Gigabit Ethernet onboard network Cat6A 4 x 2 pair AWG23 0.34 mm ²	Gigabit Ethernet onboard network	Halogen-free screened data sheath	Cat6A 4 x 2 pair AWG23	AWG23 / 0.26 mm ²	Data circuit	EN 45545-2 HL1 to HL3 data cable system	78 Ω/km	7.6 mm
EN 45545 rail Ethernet cable Data circuit High-speed train data backbone	High-speed train data backbone	Halogen-free screened	Cat7 S/FTP 4 x 2	AWG23 / 0.26 mm ²	Data circuit	EN 45545-2 HL1 to HL3	78 Ω/km	8.4 mm

Cable reference	Onboard duty	Wall system	Core / pair design	Conductor size	Voltage class	Fire class	Max DC resistance at 20 °C	OD guide
Cat7 S/FTP 4 x 2 pair AWG23 0.34 mm ²		data sheath	pair AWG23			data cable system		
EN 45545 rail Ethernet cable Data circuit Rail sensor and control data Rail sensor data 2 pair AWG22 0.34 mm ²	Rail sensor and control data	Halogen-free screened data sheath	Rail sensor data 2 pair AWG22	AWG22 / 0.34 mm ²	Data circuit	EN 45545-2 HL1 to HL3 data cable system	57 Ω/km	11.1 mm

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