

2170904	DATA SHEET	
valid from: 01.01.2019	ETHERLINE® FIRE Cat.5e PH60 4x2x23/1 AWG	

Application

ETHERLINE® FIRE Cat.5e PH60 is a CATEGORY 5e high speed data transmission cable suitable for application in the industrial environments. This data cable meets the requirements of standards EIA/TIA-568, TSB-36 and ISO/IEC IS 11801 „Generic Cabling for Customer Premises“ for CLASS D Links. The high quality screen ensures high transmission reliability of data transfer in electromagnetically polluted areas. Ensures that the cable can still transmit data during and after a fire according to EN50200.

Design

Conductor	Solid bare copper wire ca. 0.25 mm ² (AWG23/1)
Insulation	Foam-Skin Polyolefin
Core identification code	Blue/white-blue, orange/white-orange, green/white-green, brown/white-brown
Stranding	Each core is wrapped with a special anti-fire barrier tape 2 cores twisted to pairs plastic-foil on each pair 4 pairs stranded to bundle with central cross on top: Helical glass fibre tape
Screen	plastic laminated aluminum foil with solid tinned copper drain wire (26/1 AWG)
Outer sheath	FRNC compound red similar to RAL 3000 outer Ø: ca. 8.3 mm

Electrical properties at 20°C

Loop resistance	max. 190 Ω/km
Insulation resistance	min. 2 GΩ x km
Mutual capacitance	nom. 65 nF/km
Characteristic impedance	100 Ω ±15 Ω (1MHz up to 100 MHz)
Velocity of propagation	0.67 c
Peak operating voltage	125 V
Test voltage	conductor/conductor 700 V conductor/screen 700 V

Electrical transmission properties at 20°C

f [MHz]	Attenuation [dB/100m]	NEXT [dB]	EL FEXT [dB]	Return Loss [dB]
	standard	standard	standard	standard
4	4,1	56,3	52	23
10	6,7	50	43,3	25
16	8,3	47,2	40	25
31,25	11,7	42,8	34	23,6
62,5	17	38,4	28,1	21,6
100	22	35,3	24	20,1

Creator: TOST / PDC	Document: DB2170904EN	Page 1 of 2
Released: ALTE / PDC	Version: 03	

2170904	DATA SHEET	
valid from: 01.01.2019	ETHERLINE® FIRE Cat.5e PH60 4x2x23/1 AWG	

Mechanical and thermal properties

Minimum bending radius	15 x cable Ø
Temperature range	-20°C up to +70°C
Flammability	flame retardant acc. to 60332-1-2, insulation integrity PH60 acc. to EN50200
General requirements	This cable is conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances).

Creator: TOST / PDC	Document: DB2170904EN	Page 2 of 2
Released: ALTE / PDC	Version: 03	