

Industrial Ethernet

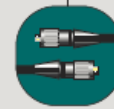
RJ45 Threaded



Overmolded Cordsets

Available as single-ended or double-ended cordsets with a 10Base-T (4 wire) or 568A/B (8 wire) wiring sequence. Offered with two industrial-sealed connectors for when both ends of the connection are to be used in harsh environments, or with the industrial connection on one end and a commercial RJ-45 connector on the other for applications where the far end may be a patch panel in a clean environment.

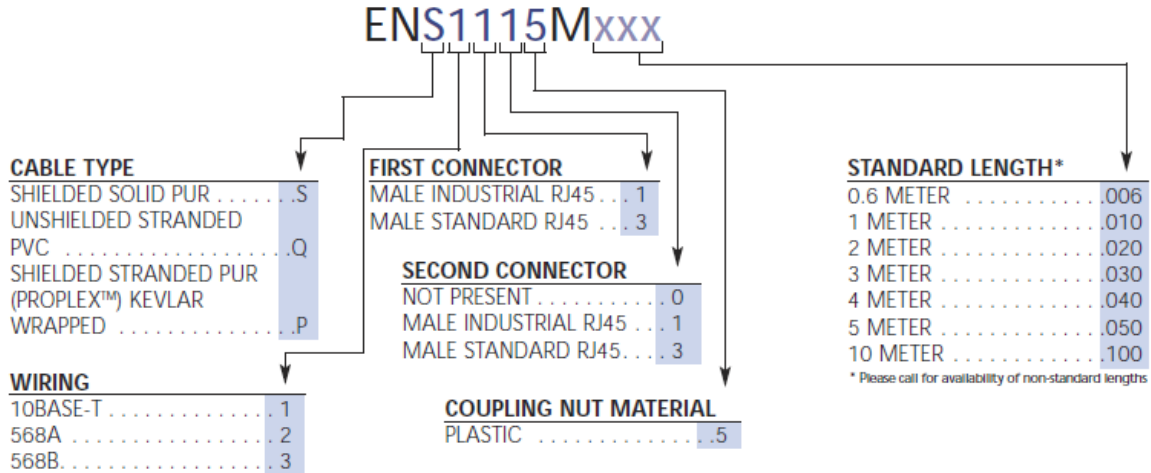
Various cables are offered to meet different needs. Solid core, shielded PUR cable is often used for longer "horizontal cross-connect" runs, and is ideal for attaching to a punchdown block. Stranded PVC is typically used for shorter "patch cord" applications, where greater cable flexibility is desired. For industries such as entertainment technology, where the cabling may be subjected to a great deal of abuse and movement, Kevlar wrapped cable provides an additional measure of insurance. Jacket colors (for stranded cable) other than black are available upon request.



- RJ-45 plug, combined with industrially proven form factor provides a secure robust connection that protects against the effects of vibration and accidental disconnection
- Category 5e compliant
- Several cable options available
- Achieves IEC IP67 rated seal when mated with an RJ-Lnxx® receptacle

CORDSET OPTIONS

Example: ENS2135M020 cordset with 568A wiring, sealed industrial RJ-45 on one end, commercial RJ-45 on the other end, 2.0 meters in length



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Specifications

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SOLID CORE CABLE

PHYSICAL	CABLE: SOLID CORE
CONDUCTORS:	#24 AWG SOLID BARE COPPER, 0.020" (0.510 mm)
INSULATION:	0.009" (0.229 mm) OF CELLULAR POLYETHYLENE
PAIR:	0.04" (1.0 mm) NOMINAL DIAMETER 2 INSULATED CONDUCTORS TWISTED TOGETHER, LAY LENGTHS VARIED BETWEEN PAIRS TO MINIMIZE CROSS TALK
CORE:	4 PAIRS CABLED TOGETHER
BINDER:	POLYESTER TAPE, 20% OVERLAY MINIMUM
SHIELD:	ALUMINUM/POLYESTER TAPE, 20%OVERLAY MINIMUM
DRAIN WIRE:	#24 AWG STRANDED (¾") TIN-PLATED COPPER
JACKET:	BLACK POLYURETHANE 0.025" (0.635 mm) NOMINAL THICKNESS
OPERATING TEMPERATURE:	-4° TO 176° F (-20° TO 80° C)
DIAMETER:	0.245" (6.223 mm) NOMINAL
WIRING SEQUENCE:	CHOICE OF TIA/EIA , 568A/B, OR 10 BASE-T
ELECTRICAL @10G	
CABLE:	SOLID
CAPACITANCE:	5.6 nF/100 METER MAX
VELOCITY OF PROPAGATION:	72% NOMINAL
CONDUCTOR DC RESISTANCE:	9.38 /100 METER MAX
IMPEDENCE:	100 ±15 OHMS
DELAY SKEW:	45 nS/100 METER MAX
TIA/EIA RATING:	CATEGORY 5E

FREQUENCY (MHz)	ATTENUATION (dB/100 M max)	NEXT (dB min)
1	2.0	65.3
4	4.1	56.3
10	6.5	50.3
16	8.2	47.3
20	9.3	45.8
31.25	11.7	42.9
62.5	17.0	38.4
100	22.0	35.30

STRANDED CABLE

PHYSICAL	CABLE: STRANDED
CONDUCTORS:	#24 AWG STRANDED TINNED COPPER
INSULATION:	POLYOLEFIN 0.037" (0.94 mm) NOMINAL DIAMETER
PAIR:2	INSULATED CONDUCTORS TWISTED TOGETHER, LAY LENGTHS VARIED BETWEEN PAIRS TO MINIMIZE CROSS TALK
CORE:	4 PAIRS CABLED TOGETHER
BINDER:	POLYESTER TAPE, 20% OVERLAY MINIMUM
OPERATING TEMPERATURE:	-4° TO 176° F (-20° TO 80° C)
JACKET:	PVC 0.025" (0.635 mm) NOMINAL THICKNESS
DIAMETER:	0.220" (5.588 mm) NOMINAL
WIRING SEQUENCE:	CHOICE OF TIA/EIA 568A/B OR 10 BASE-T
ELECTRICAL @10G	
CABLE:	STRANDED
CAPACITANCE:	15 pF/FT
VELOCITY OF PROPAGATION:	70% NOMINAL
CONDUCTOR DC RESISTANCE:	9.0 /100 METER MAX
IMPEDENCE:	100 ±15 OHMS
DELAY SKEW:	10 nS/100 METER TYPICAL, 25 nS/100 METER MAX
TIA/EIA RATING:	CATEGORY 5E

FREQUENCY (MHz)	ATTENUATION (dB/100 M max)	NEXT (dB min)
1	1.9	76
4	3.9	72
16	7.9	61
20	9.0	60
31.25	11.0	55
62.5	15.9	53
100	20.7	50

KEVLAR WRAPPED CABLE

PHYSICAL	CABLE: PROPLEX KEVLAR WRAPPED
CONDUCTORS:	#26 AWG STRANDED BARE COPPER
INSULATION:	COLOR CODED HFFR, HALOGEN FREE, 0.035" (0.90 mm) NOMINAL DIAMETER
PAIR:	CABLED WITH KEVLAR STRENGTH MEMBER AND TAPE WRAPPED
CORE:	4 PAIRS CABLED TOGETHER
SHIELD:	INNER - ALUMINUM MYLAR, 100% COVERAGE OUTER - TINNED COPPER BRAID: 80% COVERAGE
OPERATING TEMPERATURE:	-94° TO 221° F (-70 TO 105° C)
JACKET:	BLACK URETHANE 0.059" (1.5 mm) NOMINAL THICKNESS
DIAMETER:	0.287" (7.3 mm) NOMINAL
WIRING SEQUENCE:	CHOICE OF TIA/EIA , 568A/B, OR 10 BASE-T
ELECTRICAL @10G	
CABLE:	PROPLEX KEVLAR WRAPPED
CAPACITANCE:	4.6 nF/100 METERS
PROPAGATION DELAY:	5.2 nS/M MAXIMUM
CONDUCTOR DC RESISTANCE:	15 /100 METER MAX
IMPEDENCE:	100 ±15 OHMS
DELAY SKEW:	20 nS/100 METER TYPICAL, 25 nS/100 METER MAX
TIA/EIA RATING:	CATEGORY 5

FREQUENCY (MHz)	ATTENUATION (dB/100 M max)	NEXT (dB min)
1	3.15	62
4	6.45	53
16	12.3	44
20	13.8	42
31.25	17.7	40
62.5	25.6	35
100	33.0	32

CONNECTOR DIMENSIONS

