Tip Copper wire current carrying capacity

Current carrying capacity is the maximum number of amperes (amps) that can flow through a conductor before it breaks down. Many factors determine actual current carrying capacity including conductor size, temperature, number of bundled conductors, air flow and insulation material and thickness. Therefore, this chart should only be used as a general guideline to determine actual performance.

Note: Figures based on 30°C ambient temperature
Units are measured in Amps
x = Current reduction factor
Reduction factors apply when conductors are bundled

INSULATION MATERIAL	WIRE SIZE						
	30AWG	28AWG	26AWG	24AWG	22AWG	20AWG	18AWG
PVC - Standard Data Cables (CS, CSTP, DK, CSM, CSMN, CS2N, CHD, CRMN)	2x	3x	4x	6x	8x	10x	15x
Polyethylene - Low Smoke, Zero Halogen Cable (CSLSZH)	3x	4x	5x	7x	9x	12x	17x
Halar - Plenum, High Temperature Data Cable (CSPL)	3x	5x	6x	8x	11x	14x	20x

# Bundled Conductors	Reduction Factor (x)
2-5	0.8
6-15	0.7
16-30	0.5

Example:
Q: What is the estimated current capacity for L-com data cable CSMN9MM-10?
A: The important factors are:
1) 26AWG conductors, 2) PVC Insulation, 3) 9 Conductors.
The current rating is: [4x(x=0.7)] = 2.8 Amps per conductor.