



Profibus DP IEC 61158 / EN 50170 SINEC L2 (Siemens Profibus)

Application:

Profibus DP cables are designed for field networks requiring fast, cyclic data exchange between controllers and field devices. This cable is usually referred to as Siemens Profibus. This Profibus modification optimized with respect to velocity and low installation cost, Profibus DP is used as a replacement for conventional parallel data transmission with 24 V or 0 - 20 mA.



Static cables

Construction:

Type	1 pair static cables
Cable Construction	1x2x0.64mm
Inner Conductor	Plain copper
Inner Conductor Diameter	0.64mm (22AWG)
Conductor Insulation	Foamed PE with a hard skin
Conductor Colors	Red & green
Stranding Element	-
Wrapping	Synthetic bedding
Shielding 1	Aluminium foil
Shielding 2	Tinned copper wire braid – 60% optical coverage
Outer Jacket Material	PUR thermoplastic or thermosetting/ PVC/ PE/ LSHF
Outer Jacket Color	Violet/ Black



Electrical Data:

Characteristic Impedance @ 3-20MHz	150 Ω ± 10 Ω	
Conductor Resistance	57.1 Ohm/km max.	
Test Voltage	1.5KV	
Operate Voltage	Max: 350V	
Effective capacitance @ 1khz	28.5nF/km	
Data Rate	9.6 Kbit/s	1200m
	19.2 Kbit/s	1200m
	93.75 Kbit/s	1200m
	187.5 Kbit/s	1000m
	500 Kbit/s	400m
	1.5 Mbit/s	200m
	12.0 Mbit/s	100m
Attenuation	9.6KHz	2.5dB/km
	4MHz	22dB/km
	16MHz	42dB/km

Dynamic cables

Construction:

Type	1 pair dynamic cables
Cable Construction	1x2x0.25mm ²
Inner Conductor:	Plain copper, 0.25mm ²
Conductor Insulation	Foamed PE with a hard skin
Conductor Colors	Red & green
Stranding Element	Cores laid up with fillers
Core Wrapping	Polyester taped
Shielding 1	Aluminium foil
Shielding 2	Tinned copper wire braid – 60% optical coverage
Drain Wire	-
Outer Jacket Material	Polyurethane (PUR) sheath
Outer Jacket Color	Violet/ Black



Electrical Data:

Characteristic Impedance @ 3-20MHz	150 Ω ± 10 Ω	
Conductor Resistance	84.0 Ohm/km max.	
Test Voltage	1.5KV	
Working Voltage	Max: 350V	
Effective capacitance @ 1khz	28.5nF/km	
Data Rate	9.6 Kbit/s	1200m
	19.2 Kbit/s	1200m
	93.75 Kbit/s	1200m
	187.5 Kbit/s	1000m
	500 Kbit/s	400m
	1.5 Mbit/s	200m
	12.0 Mbit/s	100m
Attenuation	9.6KHz	3dB/km
	4MHz	25dB/km
	16MHz	53dB/km

Technical Data:

	Static	Dynamic
Min. Bending Radius (Laying)	12 x OD mm	12 x OD mm
Operating Temp.Range, min.	-30 °C	-5 °C
Operating Temp.Range, max.	+70 °C	+70 °C

* Simatic Net registered trademark of Siemens AG