

# UNITRONIC® BUS FD- Profibus DP



Profibus® DP (SIMATIC NET), FMS and FIP



150 Ohm BUS Cable for Continuous Flex Applications

UNITRONIC® BUS - Profibus DP cables are designed for field networks requiring fast, cyclic data exchange between controllers and field devices. Automation devices such as PLCs, PCs, HMI devices, sensors or actuators can communicate via this bus system.

### Recommended Applications:

Robotics, Motion Control, Industrial Automation field networks.

### Application Advantage:

- High performance EMC shielding
- Stranding for continuous flex operation
- Designed to profibus user organization (PNO) standards
- Quick connect option for fast IDC connector termination
- Suitable for RS-422 and RS-485

### UNITRONIC® BUS FD- Profibus DP:

Stranded bare copper conductors; specially designed foil/tinned copper braid shielding; multiple jacketing options for specific applications including Quick Connect PVC, Flexible Abrasion and Oil Resistant PUR.



Cable Attributes, See Page 653		
	Oil Resistance: OR-01	
	Motion Type: CF-01	
	Flame Resistance: FR-02	Mechanical Properties: MP-01

Availability:	
	Standard put-ups are 164ft, 328ft, 1640ft, and 3280ft. Bulk reels can be cut to length.

Complete the installation with:		
	SKINTOP® Strain Relief: Page 486	
		EPIC® Connectors: Page 251
		Cable Assemblies Page 627

### Technical Data:

	Minimum Bending Radius: - static: - flexing:	8 x cable diameter 15 x cable diameter		Characteristic Impedance:	150 Ohm +/- 10 Ohms
	Temperature Range:	-25°C to +75°C		Nominal Capacitance:	9 pF/ft
	Nominal Voltage: (2170331 & 2170875):	300V 600V		Color Code: 2170875:	Red/ Green Pairs Black number conductors
	Test Voltage:	2000V		Approvals:	UL: - CMG - Oil Res I (2170331, 2170875) CSA: - FT4 (2170331, 2170875)

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## Rate Table: (Maximum Length- One Bus Segment)

Communication Rate	PROFIBUS-DP	
	Feet	Meters
9.6 Kbps	3936	1200
19.2 Kbps	3936	1200
187.5 Kbps	3280	1000
500 Kbps	1312	400
1.5 Mbps	656	200
12.0 Mbps	328	100

Communication Rate	FIP	
	Feet	Meters
1.0 Kbps	656	200
2.5 Kbps	656	200

Part Number	Jacket	Conductor Description	Maximum Outer Diameter		Copper Weight lbs/mft	Jacket Color	Approx. Weight	
			inches	mm			lbs/mft	kg/km
<b>Quick Connect- Profibus DP, FMS or FIP</b>								
2170322*	PUR	24/ 1pr	.315	8	20	Violet	43	64
2170854	PUR	24/ 1pr	.315	8	20	Violet	43	64
<b>Torsion Flex- Profibus DP, FMS, or FIP</b>								
2170332*	PUR	22/ 1pr	.315	8	17	Violet	44	66
<b>Festoon Cable- Profibus DP, FMS or FIP</b>								
2170331	PVC	24/ 1pr	.315	8	17	Violet	40	60
<b>Hybrid Cable- Profibus DP, FMS or FIP</b>								
2170875	PVC	24/ 1pr + 16/4c	.433	11	60	Violet	104	155

\* UL/CSA (CMX)