

UNITRONIC® BUS FF-844 H1 C PVC

DS 382200001

valid from: 2018-03-31

Application

UNITRONIC® BUS FF incorporates a complete cabling solution for the implementation of field automation and field control. Fieldbus is a Digital, Serial, Multidrop, data bus for communication with low level industrial control and instrumentation devices such as transducers, actuators, and local controllers.

Design

Conductor	18 AWG tinned copper conductor with maximum DCR – 23.5 Ohms/km at 20 °C.
Standard	FF 844
Insulation	cross linked polyethylene insulated, blue & orange
Shielding	individual and overall shielded with polyester backed aluminium tape. additional copper braid for EMC protection
Inner sheath	special PVC with fire retardant low smoke properties
Outer sheath	special PVC with fire retardant low smoke properties. Colour Orange.
Armouring	GI Armoured – either wire or strip. (Unarmoured version also available)

Electrical properties

Nominal voltage	300 V
Test voltage	1000 V AC core to core
Characteristic impedance	100Ω +/- 20Ω @ 31.25 kHz
Max propagation delay change	7.8 KHz to 39 KHz = 1.7 μS/KM
Attenuation	< 3 dB/km @ 39 kHz wire to shield capacitance unbalance - the difference in capacitance between one wire (+) and the shield and the other wire (-) and the shield FF-844 - No more than 4pF/meter Sample length = 30 meter of cable.
Jacket resistance	1Mohm/330 meter – tested in water 500 V for 1 min.

Mechanical properties

Min. bending radius	fixed installation: unarmoured 10 x OD armoured 18 x OD steel braided 15 x OD.
Temperature range	fixed installation: -30 °C up to +90 °C max. conductor temperature

Flame and other tests

Flammability	in acc. with IEC 60332-1
Oxygen index	>29 % in acc. to IS 10810 Part - 58
Temperature index	>250°C in acc. to IS 10810 Part - 64
Smoke density	Max.60% in acc. to IS 10810 Part - 63
Acid gas generation	Max. 20% by weight as per IS 10810 Part - 59

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Special properties

This product conforms to RoHS directive (Restriction of the use of certain hazardous substances)

Article number	Number of cores and mm ² per conductor	Nominal outer diameter (mm)	Copper weight (kg/km) Approx.	Weight (kg/km) Approx.
UNITRONIC® BUS FF-844 H1 C PVC - CYC3OR				
382200001	1P 18AWG	9.0	15.4	123.4
382200025	2P 18AWG	15.0	30.7	266.3
382200049	3P 18AWG	15.9	46.1	325.8
382200073	4P 18AWG	17.6	61.4	400.8
382200097	5P 18AWG	19.6	76.8	509.0
382200121	6P 18AWG	21.4	92.1	587.7
382200145	7P 18AWG	21.4	107.5	632.9
382200169	8P 18AWG	24.3	122.8	767.7
382200193	9P 18AWG	26.6	138.2	858.1
382200217	10P 18AWG	27.9	153.5	940.2
382200241	11P 18AWG	27.9	168.9	985.4
382200265	12P 18AWG	28.8	184.2	1054.4
UNITRONIC® BUS FF-844 H1 C PVC - CYC3SSAYC3OR				
382200050	3P 18AWG	20.9	46.1	822.4
382200074	4P 18AWG	22.4	61.4	932.2
382200098	5P 18AWG	24.6	76.8	1110.9
382200122	6P 18AWG	26.6	92.1	1259.4
382200146	7P 18AWG	26.6	107.5	1304.6
382200170	8P 18AWG	29.7	122.8	1541.5
382200194	9P 18AWG	32.2	138.2	1718.5
382200218	10P 18AWG	33.3	153.5	1819.9
382200242	11P 18AWG	33.3	168.9	1865.1
382200266	12P 18AWG	34.6	184.2	2000.8
UNITRONIC® BUS FF-844 H1 C PVC - CYC3SSAYC3UVAROR				
382200052	3P 18AWG	20.9	46.1	822.4
382200076	4P 18AWG	22.4	61.4	932.2
382200100	5P 18AWG	24.6	76.8	1110.9
382200124	6P 18AWG	26.6	92.1	1259.4
382200148	7P 18AWG	26.6	107.5	1304.6
382200172	8P 18AWG	29.7	122.8	1541.5
382200196	9P 18AWG	32.2	138.2	1718.5
382200220	10P 18AWG	33.3	153.5	1819.9
382200244	11P 18AWG	33.3	168.9	1865.1
382200268	12P 18AWG	34.6	184.2	2000.8
UNITRONIC® BUS FF-844 H1 C PVC - CYC3SWAYC3OR				
382200002	1P 18AWG	13.6	15.4	373.7
382200026	2P 18AWG	20.0	30.7	689.5
UNITRONIC® BUS FF-844 H1 C PVC - CYC3SWAYC3UVAROR				
382200004	1P 18AWG	13.6	15.4	373.7
382200028	2P 18AWG	20.0	30.7	689.5
UNITRONIC® BUS FF-844 H1 C PVC - CYC3SYC3OR				
382200009	1P 18AWG	13.0	15.4	259.3
382200033	2P 18AWG	19.4	30.7	503.1
382200057	3P 18AWG	20.5	46.1	583.7
382200081	4P 18AWG	22.0	61.4	675.1
382200105	5P 18AWG	24.2	76.8	820.7
382200129	6P 18AWG	26.2	92.1	936.5
382200153	7P 18AWG	26.2	107.5	981.7
382200177	8P 18AWG	29.3	122.8	1185.9
382200201	9P 18AWG	31.8	138.2	1317.6
382200225	10P 18AWG	32.9	153.5	1405.7
382200249	11P 18AWG	32.9	168.9	1451.0
382200273	12P 18AWG	34.0	184.2	1559.2
UNITRONIC® BUS FF-844 H1 C PVC - CYC3SYC3UVAROR				
382200010	1P 18AWG	13.0	15.4	259.3
382200034	2P 18AWG	19.4	30.7	503.1
382200058	3P 18AWG	20.5	46.1	583.7
382200082	4P 18AWG	22.0	61.4	675.1
382200106	5P 18AWG	24.2	76.8	820.7
382200130	6P 18AWG	26.2	92.1	936.5
382200154	7P 18AWG	26.2	107.5	981.7
382200178	8P 18AWG	29.3	122.8	1185.9
382200202	9P 18AWG	31.8	138.2	1317.6
382200226	10P 18AWG	32.9	153.5	1405.7
382200250	11P 18AWG	32.9	168.9	1451.0
382200274	12P 18AWG	34.0	184.2	1559.2

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UNITRONIC® BUS FF-844 H1 C PVC - CYC3UVAROR				
382200003	1P 18AWG	9.0	15.4	123.4
382200027	2P 18AWG	15.0	30.7	266.3
382200051	3P 18AWG	15.9	46.1	325.8
382200075	4P 18AWG	17.6	61.4	400.8
382200099	5P 18AWG	19.6	76.8	509.0
382200123	6P 18AWG	21.4	92.1	587.7
382200147	7P 18AWG	21.4	107.5	632.9
382200171	8P 18AWG	24.3	122.8	767.7
382200195	9P 18AWG	26.6	138.2	858.1
382200219	10P 18AWG	27.9	153.5	940.2
382200243	11P 18AWG	27.9	168.9	985.4
382200267	12P 18AWG	28.8	184.2	1054.4