### **ENGLISH MEASUREMENT VERSION**



# 82689 Multi-Conductor - Type 2A

For more Information please call

1-800-Belden1



# **Description:**

IBM type 2A, 22 AWG solid bare copper conductors, plenum, foam FEP Teflon® insulation, each pair individually Beldfoil® shielded + overall TC braid shield (65% coverage), Flamarrest® jacket.

# **Physical Characteristics (Overall)**

# Conductor

#### AWG:

# Conductors	# Pairs	AWG	Stranding	<b>Conductor Material</b>
12	6	22	Solid	BC - Bare Copper

#### Insulation

#### **Insulation Material:**

Insulation Material
FFEP - Foam Fluorinated Ethylene Propylene
FEP - Fluorinated Ethylene Propylene

Insulation Resistance:

DGM: >16000MOhms, VGM: >2000MOhms

### **Inner Shield**

# Inner Shield Material:

	Layer #	Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)
	1	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100
ı	2		Braid	TC - Tinned Copper	65

### **Outer Shield**

# **Outer Shield Material:**

	Outer Shield Material
Tape	Polyester Tape

#### **Outer Jacket**

### **Outer Jacket Material:**

Outer Jacket Trade Name	Outer Jacket Material	
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride	

Outer Jacket Ripcord:

Yes

#### **Overall Cable**

Overall Nominal Diameter: 0.324 x 0.460 in.

#### Pair

# Pair Color Code Chart:

Number	Color
1	Blue/White Stripe & White/Blue Stripe
2	Orange/White Stripe & White/Orange Stripe
3	Green/White Stripe & White/Green Stripe
4	Brown/White Stripe & White/Brown Stripe
1	Black & Orange
2	Red & Green

# **Mechanical Characteristics (Overall)**

Non-UL Temperature Rating: 0°C To +75°C

Bulk Cable Weight: 79.400 lbs/1000 ft.







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Max. Recommended Pulling Tension:	146 lbs.
Applicable Specifications and Agency Com	pliance (Overall)
Applicable Standards & Environmental Progran	ns
NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	04/01/2006
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Other Specification:	ETL Verified
Customer Part Number Reference Specification:	IBM P/N: 4716738, 33G8221
Flame Test	
UL Flame Test:	NFPA 262
CSA Flame Test:	FT6
Plenum/Non-Plenum	
Plenum (Y/N):	Yes
Plenum Number:	9689

# **Surface Printing (Overall)**

# **Electrical Characteristics (Overall)**

# Nom. Characteristic Impedance:

Description	Impedance (Ohm)
DGM (3-20M)	150
VGM (1k)	600
VGM (256k)	105

#### Nom. Capacitance Conductor to Conductor:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Capacitance (pF/ft)
DGM	1			8.5

# **Maximum Capacitance Unbalance:**

Description	Capacitance (pF/ft)
DGM	1.00
VGM	2.625

# **Nominal Velocity of Propagation:**

Description	VP (%)
VGM	66
DGM	78

# Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000	0 ft)
16.7	

# Max. Attenuation:

Description	Freq. (MHz)	Attenuation (dB/100 m)
VGM	.1	.128
DGM	4	2.2
DGM	16	4.4

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DGM	31.25	6.9
DGM	62.5	9.8
DGM	100	12.3
DGM	200	17.4
DGM	300	21.4

#### Max. Operating Voltage - UL:

Voltage 300 V RMS

#### Max. Recommended Current:

Current
2.3 Amps per conductor @ 25°C

#### **Common Mode Attenuation:**

Description	Freq. (MHz)	Attenuation (dB/100 m)	
DGM	62.5	10.6	
DGM	100	13.4	
DGM	200	19.0	
DGM	300	23.3	
DGM	550	31.5	
DGM	600	32.9	

# **Electrical Characteristics-Premise (Overall)**

#### **Premise**

#### **Minimum NEXT:**

Freq. (MHz)	NEXT (dB)
4	58.0
16	50.4
31.25	46.1
62.5	41.5
100	38.5
200	34.0
300	31.3

### **Notes (Overall)**

Notes: IBM qualified Type 2A media cable for use in IBM cabling systems.

#### **Related Documents:**

No related documents are available for this product

### **Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
82689 0101000	1,000 FT	80.000 LB	BLACK	CZ	4PR#22FEP2PR#22FFEPSHPVC

#### Notes:

C = CRATE REEL PUT-UP.

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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