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MEGGITT

DATA SHEET

Extreme Temperature, Flexible Cable Assembly

Model 3076

01 Description

The Meggitt model 3076 is a low noise, flexible cable assembly designed for use in high temperature environments. It is unique in that it has the temperature capacity of a high temperature mineral insulated hardline cable yet is extremely flexible like a softline cable. It is ideal for installations that require flexibility for cable routing, low noise and temperatures up to 1000°F (538°C).

The 3076 cable assembly provides a number of advantages over the traditionally used mineral insulated hardline cable. It is highly flexible, with a 3x improvement in bend radius. Additionally, mineral insulated hardline cables are limited in the number of bends that can be made in one location before damage can start to occur. Because of its construction, this 3076 has no such limitation. Furthermore, because of its flexibility, the 3076 can potentially improve the dynamic response of the cable + sensor system when compared to a hardline cable. Depending on installation factors, a rigid hardline cable connected to a sensor can often induce strain onto the body of the sensor and affect its dynamic response. The 3076's flexibility minimizes this impact while still being able to withstand extreme temperatures.

Model number definition:
3076-XXX
3076= basic model number
XXX = cable length in inches

02 Key features and benefits

- Operating temperature to+1000°F (+538°C)
- 3X improvement in bend radius over rigid cables
- Fused glass stainless steel housing to center pin

03 Applications

- For use with high temperature piezoelectric accelerometers
- Ideal for installations that require flexibility for cable routing

04 Contact

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EXTREME TEMPERATURE, FLEXIBLE CABLE ASSEMBLY, Model 3076

05 Specifications

The following performance specifications are typical values, referenced at +75°F (+24°C) unless otherwise noted.

Characteristics	Units	3076
Connector 1		10-32 UNF 2B with hex coupling nut
Connector 2		10-32 UNF 2B with hex coupling nut
Lock wire holes		Yes
Outer jacket		304L stainless steel
Outer diameter	in (mm)	0.085 (2.16)
Weight	grams/in	0.4
Bend radius, min	in (mm)	0.25 (6.35)
Tensile strength	lbs	>10
Minimum temperature, cable and plugs	°F (°C)	-65 (-54)
Maximum temperature cable and plugs	°F (°C)	+1000 (+538)
Sinusoidal vibration	g	100
Shock, max	g	1,000
Gamma Radiation, per IEEE STD 383-1974	RAD	$5X10^7$
Flame propagation		Will not propagate fire
Insulation resistance, over temp range	MΩ , min	>1
Cable capacitance, typical	pF/ft	60
Noise	pC pk-pk max	1.5
Center conductor resistance	Ω/ft (Ω/m)	0.002 (0.007)

Design Features

The 3076 has rugged 10-32 hex connectors on both ends. The cable is removable and has lock wire holes for secondary retention when mated to the accelerometer. Additionally, it is insulated between the connector backshell and the stainless outer sheath [1]. The connector and pin assemblies are made in-house to ensure the highest quality product available. The connector employs a fused glass dielectric for maximum reliability and moisture protection. The stainless steel connector pin is welded to the cable's center conductor for maximum pull-strength and minimum noise.

[1] Grounding at crimp sleeve on electronics end may be necessary if noise appears on signal.

Optional Accessory: Model 33268 In-line cable adaptor rated to 1000°F (537°C). Allows connecting coaxial cables to one another.

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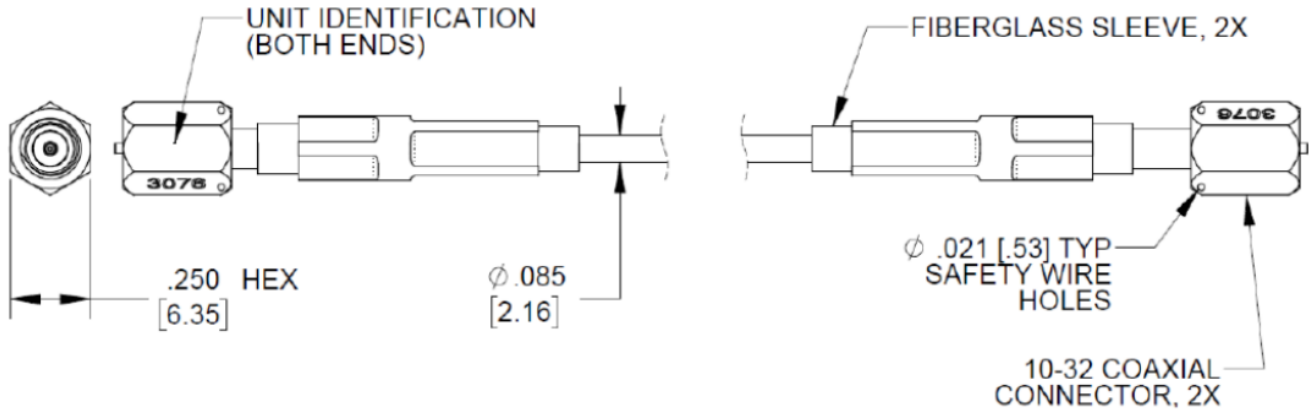
06 Outline details



TABULATION	
LENGTH	TOLERANCE
UP TO 12.00 [304.8]	+1.00 [25.4]
OVER 12.00 [304.8] TO 36.00 [914.4]	+2.00 [50.8]
OVER 36.00 [914.4] TO 120.00 [3.05M]	+4.00 [101.6]
OVER 120.00 [3.05M]	+4.00 [101.6] PER 120.00 [3.05M] OR PART THEREAFTER. +12.00 [304.8] = MAX TOL

Note: