



**Product:** [H18X1.0CH](#)

MachFlex™ 610CH, 18 C 1.0mm<sup>2</sup> Str BC, LSZH Ins, LSZH Inner Jkt, TCBS, LSZH Outer Jkt, UL AWM Style 21115

**Product Description**

MachFlex™ 610CH, 18 Conductor 1.0mm<sup>2</sup> Stranded Bare Copper, LSZH Insulation, LSZH Inner Jacket, Tinned Copper Braid Shield, LSZH Outer Jacket, UL AWM Style 21115

**Technical Specifications**

**Product Overview**

Suitable Applications:	Designed for applications which are installed in occasional flexing and fixed locations. Cable applications include precision control sensors, multi axis control machines, temperature controllers, control panels, machine cutting tools, auxiliary equipment, motor speed control, production machinery and many more. Tinned copper braid shield ensures cables with excellent noise immunity. Utilizing LSZH material emits limited smoke and no halogen when exposed to high sources of heat. It can considerably reduce the amount and density of the smoke, toxic and corrosive gas emitted during a fire, enable easier evacuation as well as safer firefighting operations.
------------------------	---

**Physical Characteristics (Overall)**

**Conductor**

Element	AWG	Stranding	Material	No. of Conductors
Conductor(s)	1 mm <sup>2</sup>	Class 5	BC - Bare Copper	18

Conductor Count:	18
------------------	----

**Insulation**

Material
LSZH - Low Smoke Zero Halogen (Flame Retardant)

**Color Chart**

Color
Black #1
Black #2
Black #3
Black #4
Black #5
...
Black #18

**Outer Shield**

Type	Material
Braid	Tinned Copper (TC)

**Outer Jacket**

Material	Nominal Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	16.95 mm

**Electrical Characteristics**

**Conductor DCR**

Max. Conductor DCR
19.5 Ohm/km

**Voltage**

Dielectric Withstand Voltage	Non-UL Description	Non-UL Voltage Rating
4000 V	IEC:	600/1000 V

## Temperature Range

Installation Temp Range:	-40°C to +80°C
Operating Temp Range:	25°C to +70°C

## Mechanical Characteristics

Oil Resistance:	Yes
UV Resistance:	Yes
Bulk Cable Weight:	485 kg/km
Min. Bend Radius During Installation:	6 x OD
Min. Bend Radius During Operation:	20 x OD

## Standards

UL AWM Style Compliance:	AWM 21115
Other Specification:	EN 50525-3-11

## Applicable Environmental and Other Programs

EU Directive 2011/65/EU (RoHS 2):	Yes
-----------------------------------	-----

## Suitability

Suitability - Indoor:	Yes
Suitability - Oil Resistance:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

## Flammability, LSOH, Toxicity Testing

IEC Flammability:	IEC 60332-1-2
Other Flammability:	DIN VDE 0482-332-1-2, DIN EN 60332-1-2, IEC 60332-3-24, IEC 60332-3-25
IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity:	10 µS/mm
IEC 60754-2 - Halogen Acid Gas Amount - Min. pH:	4.3
IEC 61034-2 - Smoke Density Min. Transmittance:	60%
UL voltage rating:	1000 V RMS

## Related Part Numbers

### Variants

Item #	Color	Length
H18X1.0CH 010200M	Black, RAL 9005	200 m
H18X1.0CH 010305M	Black, RAL 9005	305 m
H18X1.0CH 010500M	Black, RAL 9005	500 m
H18X1.0CH 0101000M	Black, RAL 9005	1,000 m
H18X1.0CH G8U200M	Gray, RAL 7001	200 m
H18X1.0CH G8U305M	Gray, RAL 7001	305 m
H18X1.0CH G8U500M	Gray, RAL 7001	500 m
H18X1.0CH G8U1000M	Gray, RAL 7001	1,000 m
H18X1.0CH 003200M	Orange, RAL 2003	200 m
H18X1.0CH 003305M	Orange, RAL 2003	305 m
H18X1.0CH 003500M	Orange, RAL 2003	500 m
H18X1.0CH 0031000M	Orange, RAL 2003	1,000 m

## History

© 2022 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.