

**ÖLFLEX® WIRE MS 2.2 1X4 BK****Article No.:** 4150601

Single conductor; 1X4; black; Ring;  $U_0/U$ : 450/750 V; PVC; HAR-certified; UL listed; Fixed Installation

**Details****Benefits**

- UL/CSA certification according to technical data enables the product to be used on the North American market.
- Product with multiple certifications enables universal use and reduces the variety of parts, thus guaranteeing logistics savings.
- Classified fire behavior according to EU Directive 305/2011 (BauPVO/CPR) with article number selection on the LAPP website.
- Different conductor insulation colors available.
- Available as a ring or in a large, disposable cardboard box. Large cardboard boxes are available depending on the color and cross-section and generally only up to 6 mm<sup>2</sup> (0.01 in<sup>2</sup>) conductor cross-section.

**Application**

- For wiring circuits inside machines.
- Suitable for wiring inside control cabinets.
- For fixed and protected installation.
- Can be used in dry and damp rooms.
- Use at temperatures up to 40°C possible.

**Notes**

---

Photographs and graphics are not to scale and do not represent detailed images of the respective products.

If applicable, the prices are solid metal prices without additional charges and VAT. Sales only to business customers.

Unless specified otherwise, the product values shown are rated values at room temperature. You can receive additional values, such as tolerances, upon request if they are available and have been released for publication.

The absence of PWIS raw materials does not protect against the potential risk of contamination with substances that interfere with the paint wetting during subsequent handling of the product(s) during transport, storage or further processing after delivery.

### Remarks

Formerly MULTI-STANDARD SC 2.2

### Technical Data

#### General information

Brand	ÖLFLEX®
Product type	Single conductor
Copper index	258 lb/10000 ft
Single core packaging type	Ring
Length per PU	328.084 ft
Industry segment	Automotive Energy Food & Beverage Healthcare & Pharma Intralogistics & Material handling Machine Tools Robotics Rolling Stock Ships & boats Solar

#### Electrical parameters

Nominal voltage	$U_0/U$ : 450/750 V AC rms according to IEC
-----------------	---

---

Rated voltage	600 V AC rms according to CSA TEW 1000 V AC rms according to UL AWM 600 V AC rms according to UL MTW
test voltage	2.5 kV

### Product design

Harmonized product type	H07V2-K
Cable dimension	1X4
Nominal cross section conductor (mm <sup>2</sup> )	4 mm <sup>2</sup>
Nominal cross section conductor (AWG)	12 AWG
Leading conductor cross-section	mm <sup>2</sup>
Conductor material	Tin-plated Copper
Conductor design	IEC 60228 class 5: fine-wire
Number of cores	1
Nominal outer diameter	0.169 in
Cable form	Round
Core insulation base material	Polyvinylchloride
Conductor insulation basic material, short form	PVC
Single core color	black
Single conductor identification	Single-colored

### Product features

Application area	Fixed Installation
Minimum bending radius, stationary	4 x outer diameter
Minimum bending radius in inch, fixed installation	0.677 in
Minimum bending radius with careful bending	2 x outer diameter

Temperature, fixed installation	to 105 °C max. conductor temperature according to UL AWM to 90 °C max. conductor temperature according to UL MTW -40 °C to 90 °C max. conductor temperature according to IEC to 105 °C max. conductor temperature according to CSA TEW
Flame-retardant	Yes
Flame retardance according to	IEC 60332-1-2 UL VW-1 CSA FT1
UV-resistant	No
weather resistant	No
Ozone-resistant	No
Halogenfree	No
Oil resistant	Yes
PWIS-free	Yes
PWIS-free according to	VDMA 24364-B2-L

#### Certifications and standards

CE marking	Yes
EAC certified	Yes
EAC certification number	EAЭC N RU Д-DE.AЮ64.B.00130/20, EAЭC N RU Д-DE.AЮ64.B.00142/20
UL recognized	Yes
UL AWM certification	10269 according to UL 758 (e-file number: E63634)
UL listed	Yes
UL certification	UL MTW according to UL 1063 (e-file number: E198296)
cUR recognized	No
cUL listed	No
CSA certified	Yes
CSA certification	TEW according to CSA C22.2 No. 127
VDE certified	No

---

HAR-certified	Yes
Product standard DIN / EN	EN 50525-2-31
CPR fire class	Eca
Resistance to flame propagation tested according to UN/ECE-R118	No

---

**ÖLFLEX® WIRE MS 2.2**

Article No.	Name	Nominal cross section conductor (mm <sup>2</sup> )	Single core color	Single core packaging type	Length per PU	Nominal outer diameter	Copper index
4150101	ÖLFLEX® WIRE MS 2.2 1X0,5 BK	0.5 mm <sup>2</sup>	black	Ring	328.084 ft	0.098 in	32.25 lb/10000 ft
4150102	ÖLFLEX® WIRE MS 2.2 1X0,5 BU	0.5 mm <sup>2</sup>	blue	Ring	328.084 ft	0.098 in	32.25 lb/10000 ft
4150103	ÖLFLEX® WIRE MS 2.2 1X0,5 BN	0.5 mm <sup>2</sup>	brown	Ring	328.084 ft	0.098 in	32.25 lb/10000 ft
4150104	ÖLFLEX® WIRE MS 2.2 1X0,5 RD	0.5 mm <sup>2</sup>	red	Ring	328.084 ft	0.098 in	32.25 lb/10000 ft
4150105	ÖLFLEX® WIRE MS 2.2 1X0,5 WH	0.5 mm <sup>2</sup>	white	Ring	328.084 ft	0.098 in	32.25 lb/10000 ft
4150114	ÖLFLEX® WIRE MS 2.2 1X0,5 DBU	0.5 mm <sup>2</sup>	dark blue	Ring	328.084 ft	0.098 in	32.25 lb/10000 ft
4150114K	ÖLFLEX® WIRE MS 2.2 EMBOSS 1X0,5 DBU	0.5 mm <sup>2</sup>	dark blue	Large Cardboard Box	9,842.52 ft	0.098 in	32.26 lb/10000 ft
4150144K	ÖLFLEX® WIRE MS 2.2 EMBOSS 1X0,5 WHBU	0.5 mm <sup>2</sup>	white/blue	Large Cardboard Box	9,842.52 ft	0.098 in	32.26 lb/10000 ft
4150201	ÖLFLEX® WIRE MS 2.2 1X0,75 BK	0.75 mm <sup>2</sup>	black	Ring	328.084 ft	0.106 in	48.39 lb/10000 ft
4150201K	ÖLFLEX® WIRE MS 2.2 EMBOSS 1X0,75 BK	0.75 mm <sup>2</sup>	black	Large Cardboard Box	8,202.1 ft	0.106 in	48.38 lb/10000 ft
4150202	ÖLFLEX® WIRE MS 2.2 1X0,75 BU	0.75 mm <sup>2</sup>	blue	Ring	328.084 ft	0.106 in	48.38 lb/10000 ft
4150203	ÖLFLEX® WIRE MS 2.2 1X0,75 BN	0.75 mm <sup>2</sup>	brown	Ring	328.084 ft	0.106 in	48.38 lb/10000 ft
4150204	ÖLFLEX® WIRE MS 2.2 1X0,75 RD	0.75 mm <sup>2</sup>	red	Ring	328.084 ft	0.106 in	48.39 lb/10000 ft
4150204K	ÖLFLEX® WIRE MS 2.2 EMBOSS 1X0,75 RD	0.75 mm <sup>2</sup>	red	Large Cardboard Box	8,202.1 ft	0.106 in	48.38 lb/10000 ft
4150205	ÖLFLEX® WIRE MS 2.2 1X0,75 WH	0.75 mm <sup>2</sup>	white	Ring	328.084 ft	0.106 in	48.4 lb/10000 ft
4150206	ÖLFLEX® WIRE MS 2.2 1X0,75 GY	0.75 mm <sup>2</sup>	gray	Ring	328.084 ft	0.106 in	48.38 lb/10000 ft
4150214	ÖLFLEX® WIRE MS 2.2 1X0,75 DBU	0.75 mm <sup>2</sup>	dark blue	Ring	328.084 ft	0.106 in	48.38 lb/10000 ft
4150300	ÖLFLEX® WIRE MS 2.2 1X1 GNYE	1 mm <sup>2</sup>	green/yellow	Ring	328.084 ft	0.114 in	64.51 lb/10000 ft
4150301	ÖLFLEX® WIRE MS 2.2 1X1 BK	1 mm <sup>2</sup>	black	Ring	328.084 ft	0.114 in	64.51 lb/10000 ft
4150302	ÖLFLEX® WIRE MS 2.2 1X1 BU	1 mm <sup>2</sup>	blue	Ring	328.084 ft	0.114 in	64.5 lb/10000 ft
4150302K	ÖLFLEX® WIRE MS 2.2 EMBOSS 1X1 BU	1 mm <sup>2</sup>	blue	Large Cardboard Box	6,561.68 ft	0.114 in	64.51 lb/10000 ft
4150303	ÖLFLEX® WIRE MS 2.2 1X1 BN	1 mm <sup>2</sup>	brown	Ring	328.084 ft	0.114 in	64.51 lb/10000 ft
4150304	ÖLFLEX® WIRE MS 2.2 1X1 RD	1 mm <sup>2</sup>	red	Ring	328.084 ft	0.114 in	64.51 lb/10000 ft
4150304K	ÖLFLEX® WIRE MS 2.2 EMBOSS 1X1 RD	1 mm <sup>2</sup>	red	Large Cardboard Box	6,561.68 ft	0.114 in	64.51 lb/10000 ft
4150305	ÖLFLEX® WIRE MS 2.2 1X1 WH	1 mm <sup>2</sup>	white	Ring	328.084 ft	0.114 in	64.5 lb/10000 ft
4150309	ÖLFLEX® WIRE MS 2.2 1X1 OG	1 mm <sup>2</sup>	orange	Ring	328.084 ft	0.114 in	64.51 lb/10000 ft
4150314	ÖLFLEX® WIRE MS 2.2 1X1 DBU	1 mm <sup>2</sup>	dark blue	Ring	328.084 ft	0.114 in	64.5 lb/10000 ft
4150326	ÖLFLEX® WIRE MS 2.2 1X1 BUWH	1 mm <sup>2</sup>	blue/white	Ring	328.084 ft	0.114 in	64.5 lb/10000 ft
4150344	ÖLFLEX® WIRE MS 2.2 1X1 WHBU	1 mm <sup>2</sup>	white/blue	Ring	328.084 ft	0.114 in	64.5 lb/10000 ft
4150400	ÖLFLEX® WIRE MS 2.2 1X1,5 GNYE	1.5 mm <sup>2</sup>	green/yellow	Ring	328.084 ft	0.122 in	96.8 lb/10000 ft

Article No.	Name	Nominal cross section conductor (mm <sup>2</sup> )	Single core color	Single core packaging type	Length per PU	Nominal outer diameter	Copper index
4150400K	ÖLFLEX® WIRE MS 2.2 EMOSS 1X1,5 GNYE	1.5 mm <sup>2</sup>	green/yellow	Large Cardboard Box	4,921.26 ft	0.122 in	96.76 lb/10000 ft
4150401	ÖLFLEX® WIRE MS 2.2 1X1,5 BK	1.5 mm <sup>2</sup>	black	Ring	328.084 ft	0.122 in	96.8 lb/10000 ft
4150401K	ÖLFLEX® WIRE MS 2.2 EMOSS 1X1,5 BK	1.5 mm <sup>2</sup>	black	Large Cardboard Box	4,921.26 ft	0.122 in	96.76 lb/10000 ft
4150402	ÖLFLEX® WIRE MS 2.2 1X1,5 BU	1.5 mm <sup>2</sup>	blue	Ring	328.084 ft	0.122 in	96.8 lb/10000 ft
4150402K	ÖLFLEX® WIRE MS 2.2 EMOSS 1X1,5 BU	1.5 mm <sup>2</sup>	blue	Large Cardboard Box	4,921.26 ft	0.122 in	96.76 lb/10000 ft
4150403	ÖLFLEX® WIRE MS 2.2 1X1,5 BN	1.5 mm <sup>2</sup>	brown	Ring	328.084 ft	0.122 in	96.76 lb/10000 ft
4150404	ÖLFLEX® WIRE MS 2.2 1X1,5 RD	1.5 mm <sup>2</sup>	red	Ring	328.084 ft	0.122 in	96.75 lb/10000 ft
4150405	ÖLFLEX® WIRE MS 2.2 1X1,5 WH	1.5 mm <sup>2</sup>	white	Ring	328.084 ft	0.122 in	96.8 lb/10000 ft
4150406	ÖLFLEX® WIRE MS 2.2 1X1,5 GY	1.5 mm <sup>2</sup>	gray	Ring	328.084 ft	0.122 in	96.76 lb/10000 ft
4150409	ÖLFLEX® WIRE MS 2.2 1X1,5 OG	1.5 mm <sup>2</sup>	orange	Ring	328.084 ft	0.122 in	96.76 lb/10000 ft
4150410	ÖLFLEX® WIRE MS 2.2 1X1,5 YE	1.5 mm <sup>2</sup>	yellow	Ring	328.084 ft	0.122 in	96.77 lb/10000 ft
4150414	ÖLFLEX® WIRE MS 2.2 1X1,5 DBU	1.5 mm <sup>2</sup>	dark blue	Ring	328.084 ft	0.122 in	96.75 lb/10000 ft
4150426	ÖLFLEX® WIRE MS 2.2 1X1,5 BUWH	1.5 mm <sup>2</sup>	blue/white	Ring	328.084 ft	0.122 in	96.8 lb/10000 ft
4150444	ÖLFLEX® WIRE MS 2.2 1X1,5 WHBU	1.5 mm <sup>2</sup>	white/blue	Ring	328.084 ft	0.122 in	96.76 lb/10000 ft
4150500	ÖLFLEX® WIRE MS 2.2 1X2,5 GNYE	2.5 mm <sup>2</sup>	green/yellow	Ring	328.084 ft	0.142 in	161.3 lb/10000 ft
4150500K	ÖLFLEX® WIRE MS 2.2 EMOSS 1X2,5 GNYE	2.5 mm <sup>2</sup>	green/yellow	Large Cardboard Box	2,952.756 ft	0.142 in	161.27 lb/10000 ft
4150501	ÖLFLEX® WIRE MS 2.2 1X2,5 BK	2.5 mm <sup>2</sup>	black	Ring	328.084 ft	0.142 in	161.25 lb/10000 ft
4150501K	ÖLFLEX® WIRE MS 2.2 EMOSS 1X2,5 BK	2.5 mm <sup>2</sup>	black	Large Cardboard Box	2,952.756 ft	0.142 in	161.27 lb/10000 ft
4150502	ÖLFLEX® WIRE MS 2.2 1X2,5 BU	2.5 mm <sup>2</sup>	blue	Ring	328.084 ft	0.142 in	161.3 lb/10000 ft
4150502K	ÖLFLEX® WIRE MS 2.2 EMOSS 1X2,5 BU	2.5 mm <sup>2</sup>	blue	Large Cardboard Box	2,952.756 ft	0.142 in	161.27 lb/10000 ft
4150503	ÖLFLEX® WIRE MS 2.2 1X2,5 BN	2.5 mm <sup>2</sup>	brown	Ring	328.084 ft	0.142 in	161.3 lb/10000 ft
4150504	ÖLFLEX® WIRE MS 2.2 1X2,5 RD	2.5 mm <sup>2</sup>	red	Ring	328.084 ft	0.142 in	161.3 lb/10000 ft
4150505	ÖLFLEX® WIRE MS 2.2 1X2,5 WH	2.5 mm <sup>2</sup>	white	Ring	328.084 ft	0.142 in	161.3 lb/10000 ft
4150506	ÖLFLEX® WIRE MS 2.2 1X2,5 GY	2.5 mm <sup>2</sup>	gray	Ring	328.084 ft	0.142 in	161.27 lb/10000 ft
4150509	ÖLFLEX® WIRE MS 2.2 1X2,5 OG	2.5 mm <sup>2</sup>	orange	Ring	328.084 ft	0.142 in	161.27 lb/10000 ft
4150514	ÖLFLEX® WIRE MS 2.2 1X2,5 DBU	2.5 mm <sup>2</sup>	dark blue	Ring	328.084 ft	0.142 in	161.27 lb/10000 ft
4150600	ÖLFLEX® WIRE MS 2.2 1X4 GNYE	4 mm <sup>2</sup>	green/yellow	Ring	328.084 ft	0.169 in	258 lb/10000 ft
4150601	ÖLFLEX® WIRE MS 2.2 1X4 BK	4 mm <sup>2</sup>	black	Ring	328.084 ft	0.169 in	258 lb/10000 ft
4150601K	ÖLFLEX® WIRE MS 2.2 EMOSS 1X4 BK	4 mm <sup>2</sup>	black	Large Cardboard Box	1,968.504 ft	0.169 in	258.04 lb/10000 ft
4150602	ÖLFLEX® WIRE MS 2.2 1X4 BU	4 mm <sup>2</sup>	blue	Ring	328.084 ft	0.169 in	258 lb/10000 ft

Article No.	Name	Nominal cross section conductor (mm <sup>2</sup> )	Single core color	Single core packaging type	Length per PU	Nominal outer diameter	Copper index
4150602K	ÖLFLEX® WIRE MS 2.2 EMBOSS 1X4 BU	4 mm <sup>2</sup>	blue	Large Cardboard Box	1,968.504 ft	0.169 in	258.04 lb/10000 ft
4150603	ÖLFLEX® WIRE MS 2.2 1X4 BN	4 mm <sup>2</sup>	brown	Ring	328.084 ft	0.169 in	258 lb/10000 ft
4150604	ÖLFLEX® WIRE MS 2.2 1X4 RD	4 mm <sup>2</sup>	red	Ring	328.084 ft	0.169 in	258.04 lb/10000 ft
4150604K	ÖLFLEX® WIRE MS 2.2 EMBOSS 1X4 RD	4 mm <sup>2</sup>	red	Large Cardboard Box	1,968.504 ft	0.169 in	258.04 lb/10000 ft
4150605	ÖLFLEX® WIRE MS 2.2 1X4 WH	4 mm <sup>2</sup>	white	Ring	328.084 ft	0.169 in	258 lb/10000 ft
4150606	ÖLFLEX® WIRE MS 2.2 1X4 GY	4 mm <sup>2</sup>	gray	Ring	328.084 ft	0.169 in	258 lb/10000 ft
4150610	ÖLFLEX® WIRE MS 2.2 1X4 YE	4 mm <sup>2</sup>	yellow	Ring	328.084 ft	0.169 in	258.04 lb/10000 ft
4150614	ÖLFLEX® WIRE MS 2.2 1X4 DBU	4 mm <sup>2</sup>	dark blue	Ring	328.084 ft	0.169 in	258.04 lb/10000 ft
4150700	ÖLFLEX® WIRE MS 2.2 1X6 GNYE	6 mm <sup>2</sup>	green/yellow	Ring	328.084 ft	0.189 in	387 lb/10000 ft
4150701	ÖLFLEX® WIRE MS 2.2 1X6 BK	6 mm <sup>2</sup>	black	Ring	328.084 ft	0.189 in	387 lb/10000 ft
4150702	ÖLFLEX® WIRE MS 2.2 1X6 BU	6 mm <sup>2</sup>	blue	Ring	328.084 ft	0.189 in	387 lb/10000 ft
4150704	ÖLFLEX® WIRE MS 2.2 1X6 RD	6 mm <sup>2</sup>	red	Ring	328.084 ft	0.189 in	387.05 lb/10000 ft
4150705	ÖLFLEX® WIRE MS 2.2 1X6 WH	6 mm <sup>2</sup>	white	Ring	328.084 ft	0.189 in	387.05 lb/10000 ft
4150706	ÖLFLEX® WIRE MS 2.2 1X6 GY	6 mm <sup>2</sup>	gray	Ring	328.084 ft	0.189 in	387 lb/10000 ft
4150800	ÖLFLEX® WIRE MS 2.2 1X10 GNYE	10 mm <sup>2</sup>	green/yellow	Ring	328.084 ft	0.256 in	645 lb/10000 ft
4150801	ÖLFLEX® WIRE MS 2.2 1X10 BK	10 mm <sup>2</sup>	black	Ring	328.084 ft	0.256 in	645 lb/10000 ft
4150802	ÖLFLEX® WIRE MS 2.2 1X10 BU	10 mm <sup>2</sup>	blue	Ring	328.084 ft	0.256 in	645.09 lb/10000 ft
4150804	ÖLFLEX® WIRE MS 2.2 1X10 RD	10 mm <sup>2</sup>	red	Ring	328.084 ft	0.256 in	645.09 lb/10000 ft
4150900	ÖLFLEX® WIRE MS 2.2 1X16 GNYE	16 mm <sup>2</sup>	green/yellow	Ring	328.084 ft	0.339 in	1032 lb/10000 ft
4150901	ÖLFLEX® WIRE MS 2.2 1X16 BK	16 mm <sup>2</sup>	black	Ring	328.084 ft	0.339 in	1032 lb/10000 ft
4150902	ÖLFLEX® WIRE MS 2.2 1X16 BU	16 mm <sup>2</sup>	blue	Ring	328.084 ft	0.339 in	1032.14 lb/10000 ft
4150904	ÖLFLEX® WIRE MS 2.2 1X16 RD	16 mm <sup>2</sup>	red	Ring	328.084 ft	0.339 in	1032.14 lb/10000 ft
4151000	ÖLFLEX® WIRE MS 2.2 1X25 GNYE	25 mm <sup>2</sup>	green/yellow	Ring	328.084 ft	0.386 in	1612.6 lb/10000 ft
4151001	ÖLFLEX® WIRE MS 2.2 1X25 BK	25 mm <sup>2</sup>	black	Ring	328.084 ft	0.386 in	1612.6 lb/10000 ft
4151100	ÖLFLEX® WIRE MS 2.2 1X35 GNYE	35 mm <sup>2</sup>	green/yellow	Ring	328.084 ft	0.445 in	2257.8 lb/10000 ft
4151101	ÖLFLEX® WIRE MS 2.2 1X35 BK	35 mm <sup>2</sup>	black	Ring	328.084 ft	0.445 in	2257.82 lb/10000 ft
4151201	ÖLFLEX® WIRE MS 2.2 1X50 BK	50 mm <sup>2</sup>	black	Ring	328.084 ft	0.531 in	3225.1 lb/10000 ft
4151301	ÖLFLEX® WIRE MS 2.2 1X70 BK	70 mm <sup>2</sup>	black	Ring	328.084 ft	0.614 in	4515.2 lb/10000 ft
4151401	ÖLFLEX® WIRE MS 2.2 1X95 BK	95 mm <sup>2</sup>	black	Ring	328.084 ft	0.701 in	6128.36 lb/10000 ft
4151501	ÖLFLEX® WIRE MS 2.2 1X120 BK	120 mm <sup>2</sup>	black	Ring	328.084 ft	0.764 in	7741.08 lb/10000 ft

V1.1