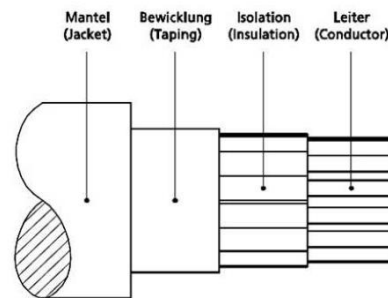
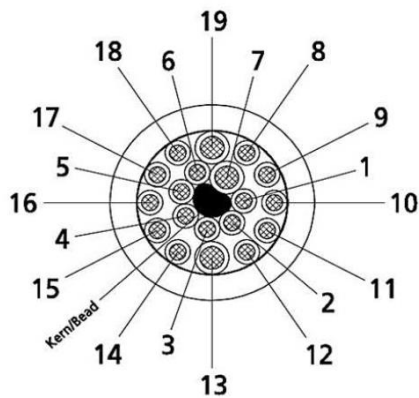
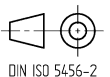


01. Drawing



The information/details in this datasheet merely contain general descriptions or performance factors which, when applied in an actual situation, do not always correspond with the described form, and may be amended by way of the further development of products. The desired performance factors shall only be binding if these are expressly agreed on conclusion of the contract.



**02. Application:**

Description: as a flexible, flame-retardant and halogen-free control line in the industrial mechanical- and plant engineering, for high requirements, particularly for the employment in cable carriers (Drag chains) and moved machine parts

**03. Line construction:**

03.01 Litz construction: in acc. with VDE 0295, EN 60228, IEC 60228 (class 6), AWG  
 Wire material: Cu-ETP1 bare in acc. with DIN EN 13602  
 Wire size: 0,50 mm<sup>2</sup>, AWG20 / 1,0 mm<sup>2</sup>, AWG18  
 Litz construction: ca. 64 x Ø 0,10 mm = 0,50 mm<sup>2</sup> (AWG 64/38) (1-6,8-12,14-18)  
 ca. 128 x Ø 0,10 mm = 1,0 mm<sup>2</sup> (AWG 128/38) (7, 13, 19)

03.02. Core insulation: no adherence between insulated wires and between these wires and the sheath

Wire isolation: PP  
 Core-diameter: Ø 1,45 ± 0,05 mm (1-6, 8-12, 14-18)  
 Ø 1,95 ± 0,05 mm (7, 13, 19)  
 Number of wires: 19 (16+3)  
 Correlation Core number-Core color: 1 yellow-brown/YE-BN; 2 brown-green/BN-GN; 3 white/WH;  
 4 yellow/YE; 5 pink/PK; 6 grey-brown/GY-BN; 7 brown/BN;  
 8 violet/VT; 9 red/RD; 10 grey/GY; 11 red-blue/RD-BL;  
 12 green/GN; 13 blue/BU; 14 grey-pink/GY-PK;  
 15 white-green/WH-GN; 16 white-yellow/WH-YE;  
 17 white-grey/WH-GY; 18 black/BK; 19 green-yellow/GN-YE

03.09. shielding: no  
 Diameter: (ca. Ø - mm)

03.10. Overall shield:  
 Diameter: (ca. Ø - mm)

03.13. Outer jacket:  
 Jacket material: PUR  
 Jacket-diameter: Ø 11,60 ± 0,30 mm  
 Jacket color: black matt similarly RAL 9005

Surface free from lubricant and grease.

Color: yellow  
 Printing: \* 242 / \*\* PUR E\*\*\* cURus AWM STYLE \*\*\*\* AWM  
 I/II A/B 80°C 300V FT2 +SUITABLE FOR USE WITHIN  
 EQUIPMENT ONLY

\* = Producer identification  
 \*\* = WWYY Production-year and -week  
 \*\*\* = UL-Producer number  
 \*\*\*\* = Style-Number

**04. Characteristics:**

04.01 Temperature range:	(Lifetime > 20.000 h)
in stationary position:	- 50 °C to + 80 °C
flexible:	- 25 °C to + 80 °C
Ambient temperature in the drag chain movement:	max. + 60 °C
04.02 Electrical characteristics:	at 20 °C
nominal voltage:	≤ 300 V
test voltage core/core, (50 Hz, 1 min.):	≥ 2000 V eff.
conductor resistance:	max. 39,0 Ω/km @ 0,34mm <sup>2</sup>
Insulation resistance:	> 1000 MΩxkm
Inductance per length unit :	0,5 mm <sup>2</sup> : nom. 0,5 mH/km 1,0 mm <sup>2</sup> : nom. 0,4 mH/km
Operating capacity per length unit :	0,5 mm <sup>2</sup> : nom. 94 pF/m 1,0 mm <sup>2</sup> : nom. 121 pF/m
Bending radius in stationary position:	> 5 x D
Bending radius in flexible stress:	> 10 x D
Angle of torsion max.:	± - °/m
Bending cycles at torsion:	> - Mio.
04.04 Drag chain characteristics:	yes
Bending cycles *:	> 2 Mio.
permissible acceleration:	max. 5 m/s <sup>2</sup>
permissible horizontal traverse path:	at 5 m/s <sup>2</sup> ► 5 m
permissible vertical traverse path:	at 5 m/s <sup>2</sup> ► 2 m
permissible traverse speed at 5 m hor. trav. path:	max. 200 m/min

\* depending on horizontal travel length and acceleration.

**05. Burning behavior:**

flame retardent acc. to: IEC 60332-2, VDE 0482-265-2-2, EN 50265-2-2, CSA-FT2

**06. Halogen-free:**

Tests acc. to: DIN EN 50267-2-1, IEC 60754-1, VDE 0482-267-2-1

**07. Resistances:**

Oil rest. tests acc. with: good  
 others: Good microbes and hydrolysis resistance  
 Good chemical resistance

**08. Other characteristics:**

Exclusion of dangerous materials acc.: EU-Directives:  
 1907/2006/EG, Reach  
 2011/65/EU, RoHS2  
 2015/863/EU, RoHS3

further legal requirements:

EU-Directive:

2014/35/EU, LVD

others:

Mainly plasticizer diffusion free

Exclusion of PVC and Silicone

Free of lacquer wetting disturbing substances

Coldness flexibility

**09. Approvals:****UL/CSA**

Jacket:

UL + cUL in acc. with AWM Style 21198 (80 °C / 300 V)

or AWM Style 20549 (80 °C, 300 V)

Core:

UL + cUL in acc. with AWM Style 10493 (80 °C / 300 V)

product overview

Article-No.	Type
000-109-576	STL 242/100 M PUR
193-242-001	STL 242
934-637-040	STL 242/400 M PUR

Version: 17

Description of changes:

Changed: Inductance per length unit : mH/km in 0,5 mm<sup>2</sup>: nom. 0,5 mH/km

1,0 mm<sup>2</sup>: nom. 0,4 mH/km

Add: Operating capacity per length unit : 0,5 mm<sup>2</sup>: nom. 94 pF/m

1,0 mm<sup>2</sup>: nom. 121 pF/m