



Technical data

- **Approval:**
UL/cUL approved, UL-Style 20233
- **Production**
in accordance with VDE standards
- **Temperature range:**
fixed installation -40°C to +105°C
flexibel -30°C to +105°C
- **Nominal voltage:**
300 V
- **Test voltage:**
2000 V
- **Minimum bending radius:**
7.5 x cable diameter (for flexible installation)
- **Traversing speed:**
max. 3.3 m/s for 5 m of horizontal traverse path length
- **Acceleration:**
max. 5 m/s²
- **Flexing and torsion cycles:**
min. 10 million.
- **Torsional stress:**
+/- 360°/m

Cable structure

- Assembly (3-pin)**
- Bare copper litz wire
 - Core insulation TPE
 - Cores stranded in layers
 - -D-screen: screened version for robot application
 - -C-screen: in drag chain systems
 - Sheath, special mix
 - weld splatter resistant, dull, low adhesion
 - Sheath colour: see below

Properties

- very good resistance to oil as per DIN VDE 0473-811-404/DIN EN 60811-404
- good resistance to acids, alkalis and solvents
- not cross-linked
- weld splatter resistant
- recyclable
- halogen-free
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers
- Free of substances harmful to paint adhesion substances
- very high mechanical load capacity
- abrasion resistant
- wear-resistant
- Highly flexible
- UV-resistant

Application

The cables with this new sheath material cover all requirements for very large mechanical stresses for abrasion, tear resistance, torsion, flexing, flexibility and oil resistance. Using for automation technology, plant and machine construction, fixture construction for handling devices, welding devices and welding tongs, assembly and handling devices, machining production, welding robots and tool machines, blast furnaces and rolling mills. The completely new feature of this cable is the weld splatter resistance without the otherwise usual and required cross-linking process. Our newly developed non-cross-linked thermoplastic elastomer is fully recyclable. In contrast to this, the usual, cross-linked, thermoplastic elastomers cannot be recycled and put a not insignificant stress on our environment. This must be particularly interesting for customers who have an environment management system according to DIN EN ISO 14001 and thus place a great deal of importance on the use of recyclable materials. A significantly longer service life than that of existing cables on the market, because it can be used in highly flexible applications, for example on robots (torsion) and in drag chains (dynamic load).

CE= The product is conformed with the EC Low-Voltage Directive 2006/95/EC.

ROBOFLEX® recycle

Part no.	Sheath colour	Cable structure No. cores x cross-sec. mm ²	Core colours	High flex **	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
701889	BK RAL 9005	3 x 0,25	BN, BU, BK	X	4,4	7,2	22,0	-
701891	YE RAL 1021	3 x 0,25	BN, BU, BK	X	4,4	7,2	22,0	-
701890	GY RAL 7001	3 x 0,25	BN, BU, BK	X	4,4	7,2	22,0	-
701894	YE RAL 1021	4 x 0,25	BN, BU, BK, WH	X	4,7	9,6	26,0	-
701892	BK RAL 9005	4 x 0,25	BN, BU, BK, WH	X	4,7	9,6	26,0	-
701893	GY RAL 7001	4 x 0,25	BN, BU, BK, WH	X	4,7	9,6	26,0	-
701897	YE RAL 1021	5 x 0,25	BN, BU, BK, WH, GY	X	4,8	12,0	30,0	-
701895	BK RAL 9005	5 x 0,25	BN, BU, BK, WH, GY	X	4,8	12,0	30,0	-
701896	GY RAL 7001	5 x 0,25	BN, BU, BK, WH, GY	X	4,8	12,0	30,0	-
702805	YE RAL 1021	8 x 0,25	DIN 47100	X	6,0	19,2	55,0	-
702803	BK RAL 9005	8 x 0,25	DIN 47100	X	6,0	19,2	55,0	-
702804	GY RAL 7001	8 x 0,25	DIN 47100	X	6,0	19,2	55,0	-
701900	YE RAL 1021	3 x 0,34	BN, BU, BK	X	4,9	9,8	30,0	-
701898	BK RAL 9005	3 x 0,34	BN, BU, BK	X	4,9	9,8	30,0	-
701899	GY RAL 7001	3 x 0,34	BN, BU, BK	X	4,9	9,8	30,0	-

Continuation ▶

ROBOFLEX® recycle



ROBOFLEX® recycle

Part no.	Sheath colour	Cable structure No. cores x cross-sec. mm ²	Core colours	High flex **	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
701903	YE RAL 1021	4 x 0,34	BN, BU, BK, WH	X	5,2	13,1	43,0	-
701901	BK RAL 9005	4 x 0,34	BN, BU, BK, WH	X	5,2	13,1	43,0	-
701902	GY RAL 7001	4 x 0,34	BN, BU, BK, WH	X	5,2	13,1	43,0	-
701906	YE RAL 1021	5 x 0,34	BN, BU, BK, WH, GY	X	5,9	16,4	54,0	-
701904	BK RAL 9005	5 x 0,34	BN, BU, BK, WH, GY	X	5,9	16,4	54,0	-
701905	GY RAL 7001	5 x 0,34	BN, BU, BK, WH, GY	X	5,9	16,4	54,0	-
702808	YE RAL 1021	8 x 0,34	DIN 47100	X	6,8	26,1	78,0	-
702806	BK RAL 9005	8 x 0,34	DIN 47100	X	6,8	26,1	78,0	-
702807	GY RAL 7001	8 x 0,34	DIN 47100	X	6,8	26,1	78,0	-
701910	YE RAL 1021	5 G 0,5	BK with number, GN-YE	X	6,0	24,0	65,0	-
701908	BK RAL 9005	5 G 0,5	BK with number, GN-YE	X	6,0	24,0	65,0	-
701909	GY RAL 7001	5 G 0,5	BK with number, GN-YE	X	6,0	24,0	65,0	-
701913	YE RAL 1021	5 G 0,75	BK with number, GN-YE	X	7,0	36,0	80,0	-
701911	BK RAL 9005	5 G 0,75	BK with number, GN-YE	X	7,0	36,0	80,0	-
701912	GY RAL 7001	5 G 0,75	BK with number, GN-YE	X	7,0	36,0	80,0	-

ROBOFLEX® recycle screened, D-screen

Part no.	Sheath colour	Cable structure No. cores x cross-sec. mm ²	Core colours	High flex **	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
703843	BK RAL 9005	3 x 0,25	BN, BU, BK	X	5,0	17,0	44,6	-
703845	YE RAL 1021	3 x 0,25	BN, BU, BK	X	5,0	17,0	44,6	-
703844	GY RAL 7001	3 x 0,25	BN, BU, BK	X	5,0	17,0	44,6	-
703848	YE RAL 1021	4 x 0,25	BN, BU, BK, WH	X	5,2	19,4	46,3	-
703846	BK RAL 9005	4 x 0,25	BN, BU, BK, WH	X	5,2	19,4	46,3	-
703847	GY RAL 7001	4 x 0,25	BN, BU, BK, WH	X	5,2	19,4	46,3	-
703851	YE RAL 1021	5 x 0,25	BN, BU, BK, WH, GY	X	5,3	22,5	50,0	-
703849	BK RAL 9005	5 x 0,25	BN, BU, BK, WH, GY	X	5,3	22,5	50,0	-
703850	GY RAL 7001	5 x 0,25	BN, BU, BK, WH, GY	X	5,3	22,5	50,0	-
703869	YE RAL 1021	8 x 0,25	DIN 47100	X	6,8	34,1	53,5	-
703867	BK RAL 9005	8 x 0,25	DIN 47100	X	6,8	34,1	53,5	-
703868	GY RAL 7001	8 x 0,25	DIN 47100	X	6,8	34,1	53,5	-
703854	YE RAL 1021	3 x 0,34	BN, BU, BK	X	5,2	19,6	48,2	-
703852	BK RAL 9005	3 x 0,34	BN, BU, BK	X	5,2	19,6	48,2	-
703853	GY RAL 7001	3 x 0,34	BN, BU, BK	X	5,2	19,6	48,2	-
703857	YE RAL 1021	4 x 0,34	BN, BU, BK, WH	X	5,4	23,7	53,0	-
703855	BK RAL 9005	4 x 0,34	BN, BU, BK, WH	X	5,4	23,7	53,0	-
703856	GY RAL 7001	4 x 0,34	BN, BU, BK, WH	X	5,4	23,7	53,0	-
703860	YE RAL 1021	5 x 0,34	BN, BU, BK, WH, GY	X	5,8	28,7	61,9	-
703858	BK RAL 9005	5 x 0,34	BN, BU, BK, WH, GY	X	5,8	28,7	61,9	-
703859	GY RAL 7001	5 x 0,34	BN, BU, BK, WH, GY	X	5,8	28,7	61,9	-
703872	YE RAL 1021	8 x 0,34	DIN 47100	X	7,3	58,0	85,0	-
703870	BK RAL 9005	8 x 0,34	DIN 47100	X	7,3	58,0	85,0	-
703871	GY RAL 7001	8 x 0,34	DIN 47100	X	7,3	58,0	85,0	-
703863	YE RAL 1021	5 G 0,5	BK with number, GN-YE	X	7,0	52,0	76,0	-
703861	BK RAL 9005	5 G 0,5	BK with number, GN-YE	X	7,0	52,0	76,0	-
703866	YE RAL 1021	5 G 0,75	BK with number, GN-YE	X	7,6	70,0	93,0	-
703864	BK RAL 9005	5 G 0,75	BK with number, GN-YE	X	7,6	70,0	93,0	-
703865	GY RAL 7001	5 G 0,75	BK with number, GN-YE	X	7,6	70,0	93,0	-

ROBOFLEX® recycle screened, C-screen

Part no.	Sheath colour	Cable structure No. cores x cross-sec. mm ²	Core colours	High flex **	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
703873	BK RAL 9005	3 x 0,25	BN, BU, BK	X	5,0	17,0	44,6	-
703875	YE RAL 1021	3 x 0,25	BN, BU, BK	X	5,0	17,0	44,6	-
703874	GY RAL 7001	3 x 0,25	BN, BU, BK	X	5,0	17,0	44,6	-
703878	YE RAL 1021	4 x 0,25	BN, BU, BK, WH	X	5,2	19,4	46,3	-
703876	BK RAL 9005	4 x 0,25	BN, BU, BK, WH	X	5,2	19,4	46,3	-
703877	GY RAL 7001	4 x 0,25	BN, BU, BK, WH	X	5,2	19,4	46,3	-
703881	YE RAL 1021	5 x 0,25	BN, BU, BK, WH, GY	X	5,3	22,5	50,0	-
703879	BK RAL 9005	5 x 0,25	BN, BU, BK, WH, GY	X	5,3	22,5	50,0	-
703880	GY RAL 7001	5 x 0,25	BN, BU, BK, WH, GY	X	5,3	22,5	50,0	-
703899	YE RAL 1021	8 x 0,25	DIN 47100	X	6,8	34,1	53,5	-
703897	BK RAL 9005	8 x 0,25	DIN 47100	X	6,8	34,1	53,5	-
703898	GY RAL 7001	8 x 0,25	DIN 47100	X	6,8	34,1	53,5	-
703884	YE RAL 1021	3 x 0,34	BN, BU, BK	X	5,2	19,6	48,2	-
703882	BK RAL 9005	3 x 0,34	BN, BU, BK	X	5,2	19,6	48,2	-
703883	GY RAL 7001	3 x 0,34	BN, BU, BK	X	5,2	19,6	48,2	-
703887	YE RAL 1021	4 x 0,34	BN, BU, BK, WH	X	5,4	23,7	53,0	-
703885	BK RAL 9005	4 x 0,34	BN, BU, BK, WH	X	5,4	23,7	53,0	-
703886	GY RAL 7001	4 x 0,34	BN, BU, BK, WH	X	5,4	23,7	53,0	-
703890	YE RAL 1021	5 x 0,34	BN, BU, BK, WH, GY	X	5,8	28,7	61,9	-
703888	BK RAL 9005	5 x 0,34	BN, BU, BK, WH, GY	X	5,8	28,7	61,9	-
703889	GY RAL 7001	5 x 0,34	BN, BU, BK, WH, GY	X	5,8	28,7	61,9	-
703902	YE RAL 1021	8 x 0,34	DIN 47100	X	7,3	58,0	85,0	-
703900	BK RAL 9005	8 x 0,34	DIN 47100	X	7,3	58,0	85,0	-
703901	GY RAL 7001	8 x 0,34	DIN 47100	X	7,3	58,0	85,0	-
703893	YE RAL 1021	5 G 0,5	BK with number, GN-YE	X	7,0	52,0	76,0	-
703891	BK RAL 9005	5 G 0,5	BK with number, GN-YE	X	7,0	52,0	76,0	-
703892	GY RAL 7001	5 G 0,5	BK with number, GN-YE	X	7,0	52,0	76,0	-
703896	YE RAL 1021	5 G 0,75	BK with number, GN-YE	X	7,6	70,0	93,0	-
703894	BK RAL 9005	5 G 0,75	BK with number, GN-YE	X	7,6	70,0	93,0	-
703895	GY RAL 7001	5 G 0,75	BK with number, GN-YE	X	7,6	70,0	93,0	-

Dimensions and specifications may be changed without prior notice.