

# ROBOFLEX 150,...151,...152,...153 PUR, flame retardant, halogen-free, for torsional stress, meter marking



## Technical data

- Special TPE-E/PUR robot cable
- Based on DIN VDE 0245, 0250, 0281, 0282
- **Temperature range**  
flexing -40 °C to +80 °C
- **Nominal voltage**  
up to 0,34 mm<sup>2</sup> 350 V  
0.5 mm<sup>2</sup> and greater U<sub>0</sub>/U 300/500 V
- **Test voltage**  
up to 0,34 mm<sup>2</sup> 1500 V  
0.5 mm<sup>2</sup> and greater 3000 V
- **Insulation resistance**  
min. 20 MΩm x km
- Max. **torsion angle**  
±360 °/metre
- **Mutual capacitance**  
core/core approx. 100 nF/km  
core/screen approx. 120 nF/km
- **Minimum bending radius**  
approx. 15x cable ø

## Cable structure

- Special bare copper, extra-fine wire acc. to DIN VDE 0295 cl. 6 + IEC 60228 cl. 6
- TPE-E core insulation
- Black cores continuous white numbering according to DIN VDE 0293 + gnye
- Special optimised stranding
- High-grade slide wrapping
- with meter marking, change-over in 2011
- Tinned copper twist screen
- PUR outer sheath
- Sheath colour: grey (RAL 7001) or black
- **Part. nos. 77261-77263, 76158, 70561, 77267, 77268, 76165, 76166, 77424**
- Core colours DIN 47100
- **Part nos. 71820, 74658, 77264, 75253, 76167**
- Construction as above, but 0,5 (1,5) mm<sup>2</sup> cores screened with aluminium-coated polyester foil
- **Part no. 72214**
- Construction as above, but 0,5 mm<sup>2</sup> pair screened with tinned twist screen
- **Part nos. 77265, 77266, 77269, 77270**
- Construction as above, but 1,0 mm<sup>2</sup> pair only, screened with tinned twist screen
- **Part no. 77469**
- Construction as above, but
- 6 cores, 1,5 mm<sup>2</sup>, screened with tinned twist screen
- 4 pairs, 0,25 mm<sup>2</sup>, screened with tinned twist screen
- Sheath colour: orange (RAL 2003)
- with meter marking, change-over in 2011

## Properties

- PUR outer sheath, low adhesion, abrasion resistant, halogen-free, resistant to UV, oil, hydrolysis and microbial attack
- PUR sheath, self-extinguishing and flame retardant according to VDE 0482-332-1-2, DIN EN 60332-1-2/ IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- The smooth, high-grade core insulation, together with special stranding configuration and slide wrapping ensure long service life under combined bending and torsional stresses

## Application

These cables are specially designed for combined torsional and bending stresses. They are employed both for power supply and for the transmission of control and monitoring signals. Roboflex cables are used in assembly and welding robots, in handling and automation centres, in transport and conveyor equipment, and on turntables and swivel tables. In other words, anywhere where there is no defined cable routing with only alternating bending cycles on a single plane such as in drag chains.

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

Continuation ▶

# ROBOFLEX 150,...151,...152,...153 PUR, flame retardant, halogen-free, for torsional stress, meter marking



## ROBOFLEX 150 (screened), Sheath colour grey

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
77261	( 12 x 0,25)	8,3	59,5	126,0	24
77266	( 23 x 1 + 2 x 1,0)	17,4	262,0	473,0	-
71789	( 4 x 1,5)	8,9	81,7	150,0	16
75251	( 4 x 2,5)	11,2	134,0	280,0	14
75252	( 4 x 4)	13,1	200,0	400,0	12
76157	( 4 x 6)	15,4	286,0	550,0	10
77262	( 3 x 2 x 0,14)	5,8	17,0	43,0	26
77263	( 4 x 2 x 0,14)	6,9	37,0	75,0	26
76158	( 5 x 2 x 0,34)	9,2	65,0	116,0	22
70561	( 8 x 2 x 0,34)	10,2	90,0	150,0	22
71820	( 4 x 1,5 + (2 x 0,62))	10,5	106,8	195,0	16
74658	( 4 x 1,5 + (2 x 0,5))	10,7	95,0	180,0	16
77264	( 4 x 1,5 + (2 x 1,0))	11,1	128,0	220,0	16
75253	( 4 x 2,5 + (2 x 0,5))	12,5	180,0	270,0	14
72214	( 4 x 4 + (2 x 0,5))	13,5	260,0	340,0	12
76159	( 4 x 4 + (2 x 1,0))	14,0	237,0	350,0	12
76160	( 4 x 6 + (2 x 1,0))	16,0	341,0	500,0	10
77265	( 16 x 1 + (2 x 1,0))	16,7	197,0	380,0	17

## ROBOFLEX 151, Sheath colour grey

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
70116	12 G 0,5	8,3	57,6	131,0	20
76168	4 G 1,5	8,5	57,6	106,0	16
76169	4 G 2,5	10,8	96,0	196,0	14
76170	4 G 4	12,7	153,6	283,0	12
76171	4 G 6	15,0	230,4	432,0	10

## ROBOFLEX 152 (screened), Sheath colour black

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
76161	( 4 x 1,5)	8,9	81,7	150,0	16
76162	( 4 x 2,5)	11,2	164,0	280,0	14
76163	( 4 x 4)	13,1	222,0	400,0	12
76164	( 4 x 6)	15,4	305,0	550,0	10
77267	( 3 x 2 x 0,14)	5,8	23,0	43,0	26
77268	( 4 x 2 x 0,14)	6,9	26,6	55,0	26
77424	( 3 x 2 x 0,25)	7,3	32,0	65,0	24
76165	( 5 x 2 x 0,34)	9,2	65,0	116,0	22
76166	( 8 x 2 x 0,34)	10,2	90,0	150,0	22
75415	( 4 x 1,5 + (2 x 0,5))	10,7	95,0	170,0	16
75416	( 4 x 2,5 + (2 x 0,5))	11,8	115,0	220,0	14
75940	( 4 x 2,5 + (2 x 1,0))	12,3	147,0	250,0	14
75167	( 4 x 4 + (2 x 0,5))	13,5	260,0	340,0	12
75417	( 4 x 4 + (2 x 1,0))	14,0	237,0	350,0	12
75418	( 4 x 6 + (2 x 1,0))	16,0	316,0	500,0	10
77269	( 16 x 1 + (2 x 1,0))	16,7	176,0	380,0	17
77270	( 23 x 1 + (2 x 1,0))	17,4	262,0	473,0	17
77469	( 5 x 2,5 + (6 x 1,5) + 4 x (2 x 0,25))	16,7	320,0	460,0	14

## ROBOFLEX 153, Sheath colour black

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Outer Ø approx. mm	Cop. weight kg / km	Weight approx. kg / km	AWG-No.
76172	4 G 1,5	8,5	57,6	106,0	16
76174	4 G 4	12,7	153,6	283,0	12
76175	4 G 6	15,0	230,4	432,0	10

Dimensions and specifications may be changed without prior notice.

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