

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



## Technical data

- Special TPE-E/PUR robot cable based on DIN VDE 0250 / DIN VDE 0285-525-1 / DIN EN 50525-1
- **Temperature range** flexing -40°C to +80°C
- **Nominal voltage** up to 0,34 mm<sup>2</sup> 350 V from 0.5 mm<sup>2</sup> U<sub>0</sub>/U 300/500 V
- **Test voltage** up to 0,34 mm<sup>2</sup> 1500 V from 0.5 mm<sup>2</sup> 3000 V
- **Insulation resistance** min. 20 MOhm x km
- **Max. torsion angle** ±360°/metre
- **Mutual capacitance** core/core approx. 100 nF/km core/screen approx. 120 nF/km
- **Minimum bending radius** 15x cable Ø

## Cable structure

- Bare copper, stranded to DIN VDE 0295 and IEC 60228, fine or extra fine wires, cl.5 or cl.6, BS 6360 cl.5 or 6, up to 0,34 mm<sup>2</sup> cl.5, above 0,5 mm<sup>2</sup> cl.6
  - TPE-E core insulation
  - Black cores continuous white numbering acc. to DIN VDE 0293 + gnye
  - Special optimised stranding
  - High-grade slide wrapping
  - with meter marking
  - 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 no. 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 no. 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

## Properties

- PUR outer sheath, low adhesion, abrasion resistant, halogen-free, resistant to UV, oil, hydrolysis and microbial attack
- The smooth, high-grade core insulation, together with special stranding configuration and slide wrapping ensure long service life under combined bending and torsional stresses
- AWG sizes are approximate equivalent values. The actual cross-section is in mm<sup>2</sup>

## 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/EC.

Continuation ▶

# ROBOFLEX® 150,...151,...152,...153 PUR, halogen-free,



for torsional stress, meter marking

## ROBOFLEX® 150 (screened), Sheath colour grey

Part no.	No. cores x cross-sec. mm²	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 0,62))	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	18

## ROBOFLEX® 152 (screened), Sheath colour black

Part no.	No. cores x cross-sec. mm²	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	18
77270	23 x 1 + (2 x 1,0)	17,4	262,0	473,0	18
77469	5 x 2,5 + (6 x 1,5) + 4 x (2 x 0,25)	16,7	320,0	460,0	14

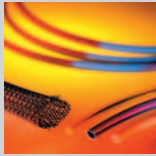
## ROBOFLEX® 151, Sheath colour grey

Part no.	No. cores x cross-sec. mm²	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® 153, Sheath colour black

Part no.	No. cores x cross-sec. mm²	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.



Suitable accessories can be found in Chapter X.

- Heat shrink tubing - SPSP coils