



### Applications

SIMBAL 'ROUNDFLEX 191-YY (UL/CSA) PVC/PVC cable is a UL - Listed and CSA certified flexible control cable rated at 600 V. Used in machine tools, control systems, connection between control panels and machines, assembly lines and other industrial equipment. Suitable for installation in dry, moist or wet environments and moderate flexing applications.

### Design

1. **Conductor** :- Flexible plain copper, Class 5 to DIN VDE 0295
2. **Insulation** :- PVC type YI 8 to DIN VDE 0207 pt 4 & class 43 to UL std 1581
3. **Outer Sheath** :- PVC type YM 5 to DIN VDE 0207 pt 4 & class 43 to UL std 1581
4. **Colour** - Grey (RAL 7001)

### Core Identification

Black with white numbers with or without green / yellow earth core (4c and above)

### Standards

HD21.13 S1, DIN VDE 0281 T13  
UL style 2587 bzw. 2550 + 21098  
CSA AWM I A/B II A/B



Mechanical Properties	
Bending Radii (Dynamic)	15 x cable thickness
Bending Radii (Static)	4 x cable thickness

Chemical Properties	
Lead & Silicon Free	
For Indoor applications (Outdoor applications only with UV protection)	
Flame retardant in accordance with IEC 60 332 part 1	
Resistant to mineral oils, synthetic oils and water based coolants	

Electrical & Thermal Properties	
Nominal Voltage	600 V
Test Voltage	3000 V
Breakdown Voltage	6000 V
Current Rating	See facing page
Max surface temperature	
- fixed installation	- 40 deg C up to + 90 deg C
- mobile installation	- 5 deg C up to + 90 deg C
Max conductor temperature	
	+ 90 deg C in operation
	+ 150 deg C in short circuit



# **SIMBAL** 'ROUNDFLEX '191-YY' (UL/CSA)'

**600 V**

## **Cable Specification**

<b>Number of cores &amp; nominal cross section</b>	<b>Gland PG / ISO</b>	<b>Current rating at 30 deg C</b>	<b>Outer diameter Approx</b>	<b>Weight Approx</b>
3c x 1.00mm <sup>2</sup> (AWG 18)	PG9.0 / M20/16	16 Amps	6.7 mm	0.061 kg/m
4c x 1.00mm <sup>2</sup> (AWG 18)	PG9.0 / M20/16	16 Amps	7.3 mm	0.081 kg/m
5c x 1.00mm <sup>2</sup> (AWG 18)	PG11.0 / M20/16	16 Amps	8.1 mm	0.095 kg/m
7c x 1.00mm <sup>2</sup> (AWG 18)	PG11.0 / M20S	16 Amps	9.2 mm	0.130 kg/m
8c x 1.00mm <sup>2</sup> (AWG 18)	PG13.5 / M20S	16 Amps	10.0 mm	0.144 kg/m
9c x 1.00mm <sup>2</sup> (AWG 18)	PG13.5 / M20S	16 Amps	11.1 mm	0.180 kg/m
12c x 1.00mm <sup>2</sup> (AWG 18)	PG16.0 / M20	16 Amps	11.8 mm	0.211 kg/m
18c x 1.00mm <sup>2</sup> (AWG 18)	PG21.0 / M25	16 Amps	14.1 mm	0.309 kg/m
25c x 1.00mm <sup>2</sup> (AWG 18)	PG21.0 / M25	16 Amps	17.1 mm	0.413 kg/m
3c x 1.50mm <sup>2</sup> (AWG 16)	PG9.0 / M20/16	20 Amps	7.2 mm	0.091 kg/m
4c x 1.50mm <sup>2</sup> (AWG 16)	PG11.0 / M20/16	20 Amps	8.1 mm	0.117 kg/m
5c x 1.50mm <sup>2</sup> (AWG 16)	PG11.0 / M20S	20 Amps	8.9 mm	0.140 kg/m
7c x 1.50mm <sup>2</sup> (AWG 16)	PG13.5 / M20S	20 Amps	10.6 mm	0.186 kg/m
9c x 1.50mm <sup>2</sup> (AWG 16)	PG16.0 / M20	20 Amps	12.8 mm	0.244 kg/m
12c x 1.50mm <sup>2</sup> (AWG 16)	PG21.0 / M25	20 Amps	13.4 mm	0.319 kg/m
18c x 1.50mm <sup>2</sup> (AWG 16)	PG21.0 / M25	20 Amps	15.8 mm	0.451 kg/m
25c x 1.50mm <sup>2</sup> (AWG 16)	PG29.0 / M25	20 Amps	19.3 mm	0.625 kg/m
3c x 2.50mm <sup>2</sup> (AWG 14)	PG11.0 / M20S	25 Amps	8.7 mm	0.143 kg/m
4c x 2.50mm <sup>2</sup> (AWG 14)	PG13.5 / M20S	25 Amps	10.1 mm	0.185 kg/m
5c x 2.50mm <sup>2</sup> (AWG 14)	PG13.5 / M20S	25 Amps	10.9 mm	0.221 kg/m
7c x 2.50mm <sup>2</sup> (AWG 14)	PG16.0 / M20	25 Amps	13.1 mm	0.295 kg/m
9c x 2.50mm <sup>2</sup> (AWG 14)	PG21.0 / M25	25 Amps	15.6 mm	0.429 kg/m
12c x 2.50mm <sup>2</sup> (AWG 14)	PG21.0 / M25	25 Amps	16.7 mm	0.563 kg/m
18c x 2.50mm <sup>2</sup> (AWG 14)	PG29.0 / M32	25 Amps	19.6 mm	0.854 kg/m
25c x 2.50mm <sup>2</sup> (AWG 14)	PG36.0 / M32	25 Amps	24.0 mm	1.180 kg/m
4c x 4.0mm <sup>2</sup> (AWG 12)	PG16.0 / M20	36 Amps	12.5 mm	0.298 kg/m
5c x 4.0mm <sup>2</sup> (AWG 12)	PG21.0 / M25	36 Amps	15.8 mm	0.358 kg/m
7c x 4.0mm <sup>2</sup> (AWG 12)	PG21.0 / M25	36 Amps	16.3 mm	0.480 kg/m
4c x 6.0mm <sup>2</sup> (AWG 10)	PG21.0 / M25	45 Amps	14.2 mm	0.402 kg/m
5c x 6.0mm <sup>2</sup> (AWG 10)	PG21.0 / M25	45 Amps	15.9 mm	0.484 kg/m
7c x 6.0mm <sup>2</sup> (AWG 10)	PG29.0 / M32	45 Amps	19.4 mm	0.830 kg/m