

# Sumflex®

## Mechatronic Robot Connection Cable

For the FANUC  
R30iA / R30iB Robot  
Control Systems

Prefabricated robot connection and  
positional-axis-arm cables for FANUC  
industrial robots

sumcab  
ROBOTICS



As a manufacturer and packager of special cables, SUMCAB can cover all your cabling needs from a single source, which reduces processing time and the number of suppliers you have to deal with. A recent addition to our product portfolio is the Sumflex® Mechatronic ‚Robot Connection Cable‘ range.

Specially developed for the transmission of power output and control signals for the reliable operation of the servomotors for the 6 positional axis arms in FANUC industrial robots.

In addition, the Robotic Connection Cable range includes an extensive assortment of cables with factory-fitted connections made to original manufacturer standards.

All cable types included in the range comply fully with the quality, certification and conformity requirements specified in the relevant FANUC standard. All components undergo extensive quality and functionality checks – our QA documentation can be provided on request.

In addition to standard static installations in cable ducting, the ‚Robot Connection Cables‘ are also designed for use in the drag chain of the robot’s positional-axis-arm. Also included is a selection of prefabricated connector and control cables for the servomotor of the 7th standalone axis.

☰ RM1 / RP1 / M20i / RMP (= hybrid between RP1 + M20i)

### Technical Specifications

<b>Nominal voltage</b>	450 V (RM1, M20i, RP1: 0,75 mm <sup>2</sup> )   300 V (RP1: 0,25 mm <sup>2</sup> )
<b>Test voltage</b>	2,5 kV (Ader / Ader) / 1,5 kV (Ader / Schirm) (RM1, M20i, RP1: 0,75 mm <sup>2</sup> ) 1,5 kV (Ader / Ader) / 1,0 kV (Ader / Schirm) (RP1: 0,25 mm <sup>2</sup> )
<b>Conductor resistance (Ω/km @ 20° C)</b>	Max. 9,5 (RM1, M20i)   Max. 26 (RP1: 0,75 mm <sup>2</sup> ) Max. 79 (RP1: 0,25 mm <sup>2</sup> )
<b>Minimum bend radius</b>	5 x D (optimal 10 x D)
<b>Temperature range</b>	-40° C bis +80° C
<b>Oil resistance</b>	Ölbeständig (in Anlehnung an UL 758 und EN 50363-10-2)
<b>Heat resistance</b>	Hitzebeständig (in Anlehnung an UL 94 Klassifikation V-2)

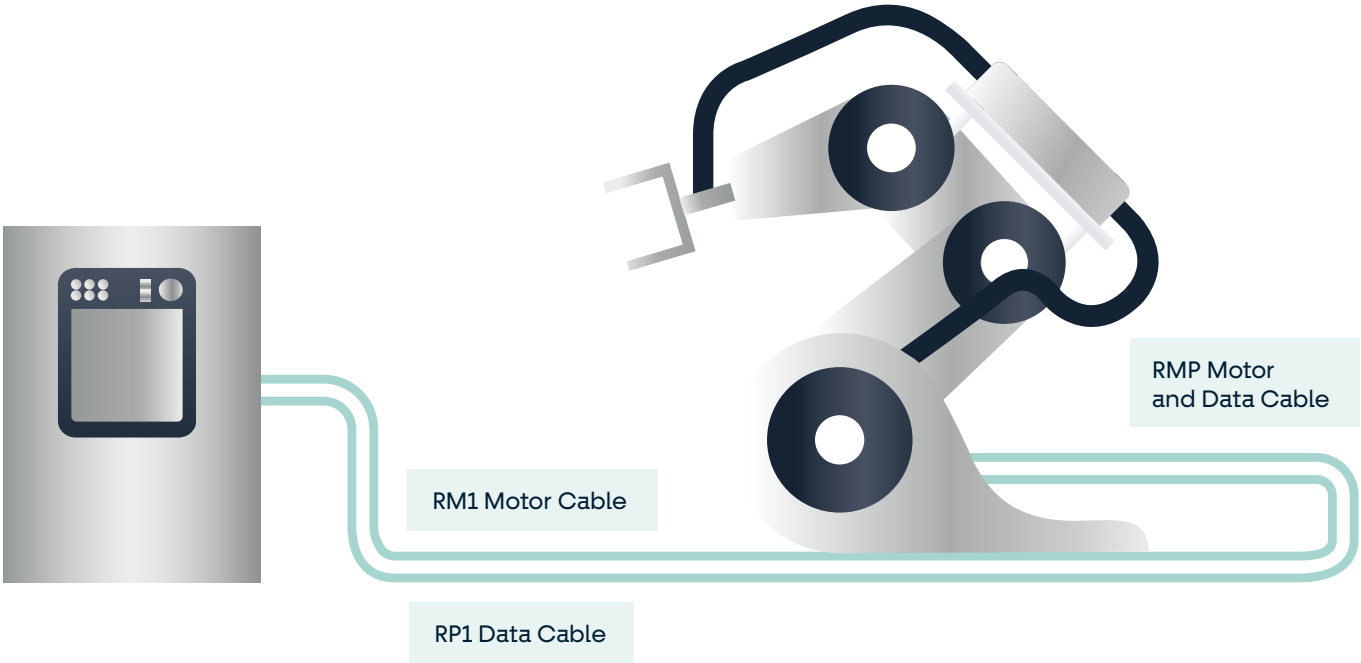
The conductor is free of silicon and other substances that hinder the application of surface paint / coating products

### Composition

<b>Conductor</b>	Flexible strand of bare copper wires (compliant with DIN VDE 0295 / IEC 60228 Class 6)
<b>Insulation</b>	TPE
<b>Outer sheath</b>	PUR matt (rough surface, low adhesion), halogen free and flame retardant
<b>Outer sheath colour</b>	Black
<b>External diameter of the cable</b>	26 ± 0,5mm (RM1)   20,1 ± 0,8 mm (RP1) 17,5 ± 0,5 mm (M20i)



Robot Connector Cables for the FANUC R30iA / R30iB Robot Control Systems



Connector Product Name	Item No.: 7 m	Item No.: 15 m	Item No.: 25 m	Item No.: 35 m	Item No.: 50 m
RM1 Motor Cable	81.404.060.120.007	81.404.060.120.015	81.404.060.120.025	81.404.060.120.035	81.404.060.120.050
RP1 Data Cable	81.404.060.220.007	81.404.060.220.015	81.404.060.220.025	81.404.060.220.035	81.404.060.220.050
RMP Motor & Data Cable	81.404.060.320.007	81.404.060.320.015	81.404.060.320.025	81.404.060.320.035	81.404.060.320.050
PE 16mm <sup>2</sup> *	81.403.000.000.013	81.403.000.000.012	81.403.000.000.015	81.403.000.000.016	81.403.000.000.017

Custom lengths available on request

\*PE (potential equalisation) 16 mm<sup>2</sup> single conductor yellow/green – pre-assembled with M8 ring cable lug at both ends



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