

# M40 Power Connectors

Connector Series P, Size 1.5



The Smiths Interconnect M40 series is qualified for heavy drive applications in mechanical engineering, tooling machines, robotics, mechatronics, heavy printing and packaging machines, conveyors and marine.

The adoption of crimp contacts allows for a consistent high quality connection and reduces the total installation time of the connector by minimizing the number of operations. Machined contacts feature a closed barrel design ideally suited for manual hand tools and support a wide range of wire termination cross sections.

The series uses Hypertac® hyperboloid contacts. Hypertac® is a superior performing hyperboloid contact technology designed for use in harsh and demanding environments where high reliability and safety are critical. The inherent electrical and mechanical characteristics of the Hypertac® hyperboloid contact ensures unrivalled performance in terms of reliability, number of mating cycles, low contact force and minimal contact resistance. These performance characteristics provide a real commercial benefit in terms of the total installed cost of ownership.

In addition the series features outstanding protection against electromagnetic interference through a full 360° screen shielding.

Designed for Heavy Drive Applications

## Features & Benefits

### Superior Performance

- Hypertac® contact technology ensures immunity to shock and vibration and minimal contact resistance
- Long life and low rate of wear through excellent shock and vibration resistance
- Outstanding protection against electromagnetic interference through a full 360° screen shielding
- Corrosion resistant
- Variable cable clamp can accept cable diameter from 9mm to 25mm

### High Current Applications

- Crimp contacts for wire diameter from 1.5mm<sup>2</sup> to 16mm<sup>2</sup>
- Ground connection

### UL certified

- UL/CSA approval file No. 178462

# Technical Characteristics

## Material & Finishes

Shell	CuZn, zinc diecast, aluminium, plastics
Shell plating	nickel plated, chemical nickel plated
Inserts	PA, PBT
Contacts	CuZn
Contact plating	gold plated
Sealing	FKM, NBR
Storage conditions	-40°C to 70°C / humidity 40%

## Electrical

Max. nominal current	65 A @ 20°C (Ø 3.6 mm) 30 A @ 20°C (Ø 2.0 mm)
Max. operating voltage	630 Vrms (Ø 3.6 mm) 250 Vrms (Ø 2.0 mm)
Contact resistance	<1 mΩ (Ø 3.6 mm) <3 mΩ (Ø 2.0 mm)
Overvoltage category	III

## Physical & Environmental

Operating temperature range	-40°C to 125°C
Environmental level	IP67 (mated)
Contamination level	3 (mated)
Installation altitude	up to 3000 m
Fire & Smoke	UL94 V0
RoHS	Compliant