Neckarsulm (Germany), 28 July 2022

UL-approved 7/8'' connectors  
**Reliable power supply of automation devices  
  
From sensor technology through bus applications to lighting installations: thanks to their robust design, 7/8'' connectors with UL approval from binder facilitate the power supply of components and devices in automation technology. A mating face unified across all manufacturers promises flexibility in application and provides security in procurement.**binder, a leading supplier of industrial circular connectors, presents its program for 7/8'' connection technology. Designed as 3-, 4- or 5-pin variants, connectors with screw clamp termination as well as pre-assembled cable connectors with straight or angled cable outlet are available. The products equipped with reliable screw locking meet the conditions of protection degree IP67 – the overmolded cables even IP68 – and have UL certification for use on the North-American continent. With an ampacity of up to 13 A in the 3-pin version and a rated voltage of 300 V, or 600 V according to UL guidelines, the 7/8'' circular connectors from binder are suitable for power applications in automation technology.  
  
**Well-established interface for device power supply**  
Important fields of application for the flexible 7/8'' technology can be found in process, factory, and warehouse automation, for example in the packaging or food industry. Here it is a proven element in the power supply of sensors, actuators, and various fieldbus devices. Practical examples include drive or lighting technology and the electrical connection of heating devices. The power supply of active distribution boxes, often also referred to as sensor-actuator boxes, using 7/8'' connectors is very common. The main purpose of these devices is to simplify the wiring of complex field installations. As such, they are considered key components of rugged decentralized automation solutions, but require equally robust connection technology. The 7/8'' connectors from binder, which are protected to IP67/IP68 against the effects of particles and moisture, stand out here as durable, industrial-grade components for the power supply.  
  
**7/8'': origin and peculiarities**7/8'' connectivity has its origins in the late 1960s. At that time, it was used in the USA as a standard interface for sensor technology – a field of application that is dominated today by M12 connectors. Thanks to its robust design, including 2-mm-diameter contacts, the range of uses for 7/8'' technology has shifted; today it is mainly established in the power supply of components and devices in automation technology.

Important for users: the NFPA/T3.5.29 R1-2007 quasi-standard defines a mating face for the 7/8" products. The unified mating face ensures that connectors from different manufacturers are compatible with one another. Thus, on the one hand, users can choose from a large number of products; on the other hand, this variety and compatibility – in times of sensitive supply chains – promises a certain degree of security in procurement.  
  
**Optionally field-wireable or ready to connect**  
For power supply applications in the automation environment, binder offers various ready-to-connect, pre-assembled and overmolded cables: in straight and angled versions, in different lengths and with stainless-steel cable screw connections for use in corrosive ambient conditions. Field-wireable products, on the other hand, allow greater flexibility in the choice of cable materials and lengths. The screw termination inside ensures a cost-efficient, detachable connection. Cables with diameters from 6 mm to 12 mm can be connected; possible wire gauges range up to 2.5 mm². Gold-plated contacts and stainless-steel variants ensure a long mechanical service life at low contact resistances, especially for use in industrial environments.  
  
**Special versions available**  
Users who require 7/8'' technology for installation in device housings can choose from binder's flange connectors with various thread designs. On the termination side, there is a selection of pre-assembled wires in various lengths as well as dip solder contacts for mounting on a printed circuit board.

The binder portfolio also extends to products for the CAN-based DeviceNet fieldbus – including clever additions such as the 870-series T distributors in different pin counts, which are capable of supplying two loads simultaneously from one source.

**About binder**binder, headquartered in Neckarsulm, Germany, is a family-owned company characterized by traditional values and one of the leading specialists for circular connectors. Since 1960, binder has been synonymous with the highest quality. The company works with more than 60 sales partners on six continents and employs around 2,000 people worldwide.

The binder group includes the binder headquarters, 16 affiliated companies, two system service providers as well as an innovation and technology center. In addition to Germany, the binder sites are located in Austria, China, France, Hungary, the Netherlands, Singapore, Sweden, Switzerland, the UK, and the USA.  
  
Figure caption:  
7/8''-type connectivity – well-established interfaces for power supply to process, factory, and warehouse automation components. Photo: binder  
  
Fields of application:

* Process, factory, and warehouse automation
* Power supply in fieldbus systems and drive technology
* Sensor-actuator boxes
* Lighting technology

Features:

* Size: 7/8''
* Locking system: screw lock
* Termination technology: screw terminal
* Wire gauge: up to 2.5 mm²
* Rated current, voltage: up to 13 A, 600 V according to UL guidelines
* Pin count: 3-, 4- and 5-pin (2+PE, 3+PE, 4+PE)
* Protection degree: IP67/IP68

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