

M Series Toggles with Dual Seal Waterproof Protection & Robotics

Introduction

NKK Switches' M Series toggle was introduced in the 1970s, and it wasn't long before it was recognized as the flagship of the company. It's been more recent that the dual seal waterproof version was launched in 2016. It boasts the exemplary standards of superior craftsmanship for which NKK has become acknowledged globally.

Europe has been evolving as a leader in evaluation, design and use of the radio remote controller (RRC). NKK and their distributors observed this expanding segment as a prospective opportunity to introduce their latest waterproof electromechanical switch, and some of the key manufacturers responded. Several of the European RRC manufacturers had been employing other NKK waterproof devices, but the M dual seal toggle was a slightly different offering with features that were even more compatible with the application. Apparently now, due to its stellar performance and multitude of benefits, this toggle is emerging as an efficient and competent unit in the field.

Sales have risen impressively for the M waterproof toggles in just the past few years, not only in Europe but now the United States. It is not remarkable, however, due to the prolific use and popularity of robotics paired with NKK's success in exposing manufacturers to the perfect component for their project.

Keys to M Toggle Dual Seal Success

The radio remote controllers are frequently operated in coarse environments where elements can pose a risk of potential damage to switches. However, NKK's M Toggle dual seal is up to the challenge, designed to stand against the hazards of heat, cold, humidity and dust particles.

There are multiple distinctive features that strengthen the waterproof M toggle's reputation. It has an Ingress Protection rating of 68, translating to complete protection against dust, plus safeguarding against periods of immersion in water. This is crucial in environments with harsh elements, which could otherwise enter moving parts of the switch and cause significant damage.

The waterproof boot, an integral part of the switch situated at the base of the actuator, eliminates the requirement of an extra accessory for defense against the elements. Its silicone rubber composition has exceptional heat, cold and weather



resistant properties. While there are occasions where it may be appropriate to consider a separate boot for a switch, users of the M waterproof toggle do not have to be concerned with the assembly process, faulty installation, fitting the switch with an incorrectly sized boot, whether the material of the boot will perform adequately in the environment, improper torque sequence, or insufficient thread engagement. Moreover, the M toggle's inner o-ring and external washer add durability against oil and chemicals, further optimizing protection. All of these factors ensure a reliable front panel seal for the switch while significantly reducing maintenance cost.

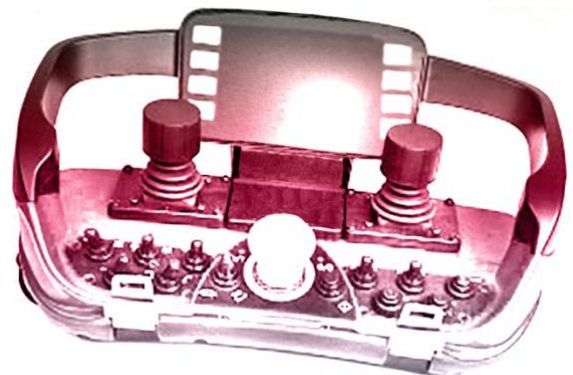
Not only is the M dual seal toggle functional and dependable, its polished, chrome-plated lever delivers in terms of sleek design and equips with distinctive, sturdy, tactile actuation. Skillful design structure restricts entry of harmful particles that may potentially compromise lever operation or malfunction of the switch.



NKK's M Series features both silver and gold contacts. RRCs prefer the logic level power ratings and gold contacts for handheld wireless devices, confident in the credible performance it delivers.

Compact miniature size is another valuable characteristic that this waterproof toggle boasts to benefit panel flexibility. Its 12mm D flatted bushing simplifies mounting while working well with an anti-rotation panel cutout. Even with the asset of a built-in rubber boot, NKK's valuation is extremely economical when considering competitive pricing, some of which do not have the boot.

These are all among the key factors that manufacturers and designers are considering when choosing NKK Switches' M Series waterproof toggles for their radio remote controller applications.



Additional Applications Besides RRCs

The IP68 rated M Series Toggle has been integrated in many more applications than RRCs. End users testify the booted miniature displays its success in multiple fields, including the following:

- Construction
- Cranes
- Concrete Pumps
- Drilling
- Forestry, Agriculture, Horticulture
- Railways
- Shipping
- Material Processing
- Mining
- Mobile Hydraulic
- Oil and Gas