



# APEM

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IMPROVING SAFETY AND OPERATOR EXPERIENCE IN TELEHANDLERS  
WITH APEM'S INTUITIVE AND VERSATILE SOLUTIONS

## TELEHANDLERS

Ensuring the safety of operators maneuvering telehandlers remains essential. APEM solutions are reliable, intuitive and multifunctional, enhancing the user experience.



1 **ROCKER SWITCHES:** KL & KR series



2 **SELECTOR SWITCHES:** HW series



**IDEC**

3 **LED INDICATORS:** Q series



4 **E-STOPS:** XA/XW series

**IDEC**



5 **PUSHBUTTONS:** FD, FP series



6 **THUMBSTICKS 2-AXIS:** TS, NV series



7 **PADDLES:** BL series



8 **HALL EFFECT HANDGRIPS:** XD series  
RT handle



9 **CUSTOM KEYPADS**



10 **TOGGLES:** CT series



# STANDARD AND CUSTOMIZABLE HMIs FOR TELEHANDLERS

For manufacturers and operators of telescopic forklift trucks, the HMIs in these vehicles must meet several key criteria:

- **Durability:** These HMIs must endure countless repeated operations, often in harsh environmental conditions, without failure.
- **Safety:** These HMIs have undergone rigorous testing to meet the stringent safety standards required for this type of equipment. When an operator's safety is on the line, the HMI must be entirely reliable.
- **Intuitiveness:** Given the large number of end-users in this sector, the controls must be universally easy to understand for optimal efficiency. Additionally, certain scenarios demand rapid activation of specific functions, making it crucial that operators can instantly identify the correct control.
- **Multifunctionality:** APEM adds value with tailored solutions. Whether you need a switch to control headlights or start and stop to power up the engine, our experts can recommend the most innovative solutions from our range, customized to meet your unique needs.

## INTEGRATE OUR HMI COMPONENTS IN YOUR DESIGN OR SELECT OUR CUSTOM JOYSTICK & HANDLE SOLUTIONS

**IA SERIES**  
Field-proven reliability

**IV SERIES**  
Momentary pushbutton switch

**HR SERIES**  
Versatile range

**IX SERIES**  
Compact and illuminated

**IG SERIES**  
Pushbutton switches for joystick

**IM SERIES**  
Exceptional tactile feedback

**TS SERIES**  
Miniature hall effect joysticks

**PROTECTED FNR**  
Robust and ergonomic

**XD SERIES**

- Shallow mounting depth < 60 mm
- Extremely robust, resists high axial load (1780 N - 400 lbf)
- Fully sealed

**NV SERIES**  
"push to validate" switch-based joystick

## Our selection

Custom options available. Please contact APEM for further details.

| Joystick        | Paddle                 | LED indicator     | Rocker switches     |                   | Switches             |                    |                                  | E-stop              |
|-----------------|------------------------|-------------------|---------------------|-------------------|----------------------|--------------------|----------------------------------|---------------------|
|                 |                        |                   |                     |                   |                      |                    |                                  |                     |
| <b>XD</b>       | <b>BF</b>              | <b>Q8</b>         | <b>KL</b>           | <b>KR</b>         | <b>Protected FNR</b> | <b>IG</b>          | <b>IV</b>                        | <b>XA</b>           |
| IP67            | IP67                   | IP67              | IP69K               | IP68              | IP69K                | IP67               | IP69K                            | IP65                |
| 10 M lifecycles | 5 M lifecycles         | 100 000 hours     | 150,00 lifecycles   | 150,00 lifecycles | 1M lifecycles        | 1M lifecycles      | 1M lifecycles                    | 250, 000 lifecycles |
| Custom handle   | Zero below panel depth | Super bright LEDs | One locked position | Low behind-panel  | Easy to install      | Late customization | Namur wiring for improved safety | 16 mm               |



We can support your functional safety requirements to comply with safety norms (ISO26262, ISO13849-1, ...).

Many APEM products are suitable for use within a given SIL environment. Some of our products continuously perform self-monitoring against any potential internal failure. Depending on your project, our engineers can provide and explain what we can offer using B10d and MTTFd.



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