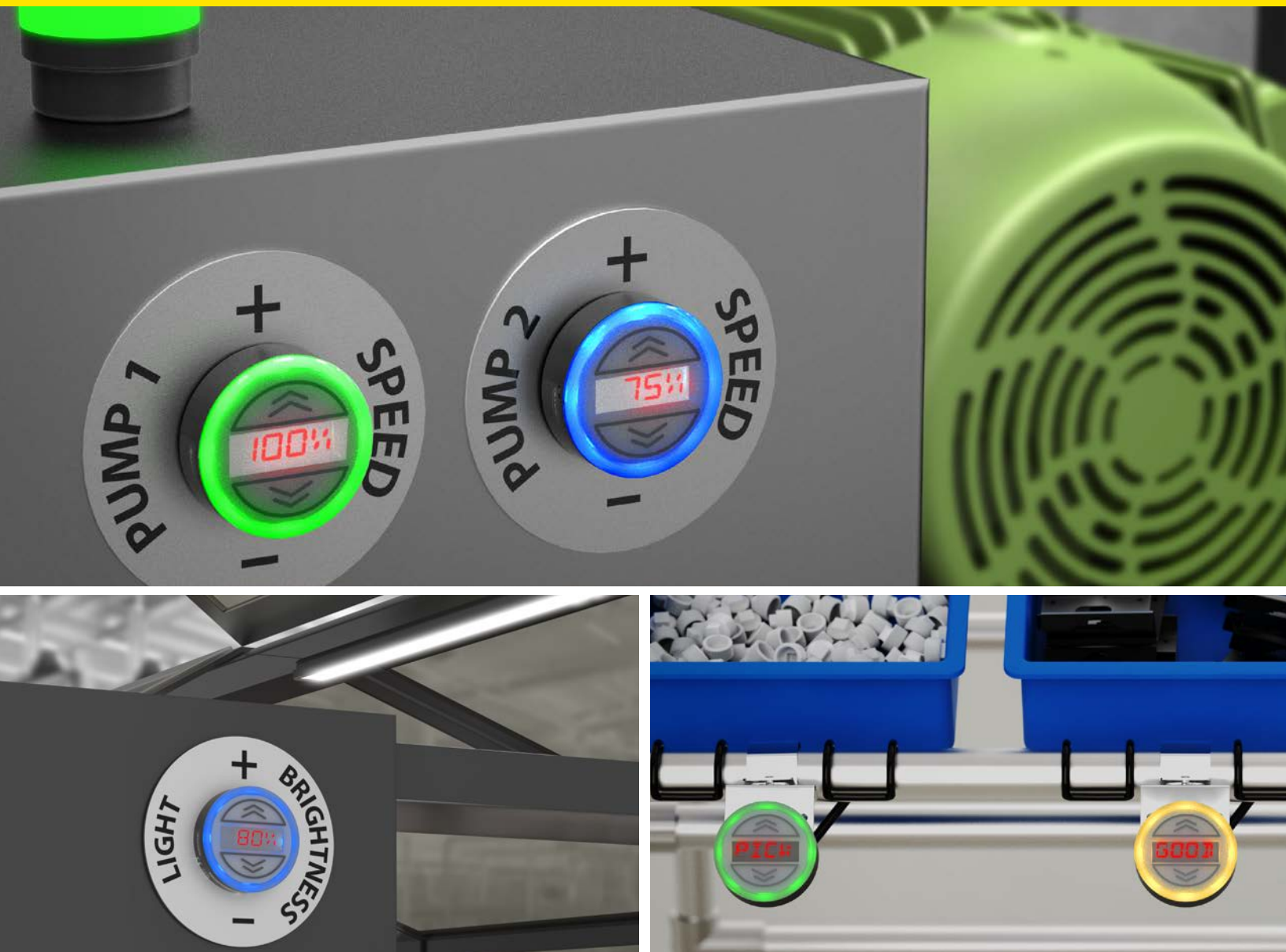# K50 I/O Touch Control with Display

Localized Output Control and Status in One Device

- Onboard analog, PWM, PFM, and discrete outputs enable control of core applications such as adjusting VFD speed, dimming LED lights, and signaling part-picking details

- Two capacitive touch zones provide reliable input with gloved or bare hands—with no mechanical parts to wear out

- Four-character display improves operator response by showing output values and system messages

- Bright, multicolor LEDs provide operators with at-a-glance equipment status. All colors and animations are easily configured with Banner's free Pro Editor software
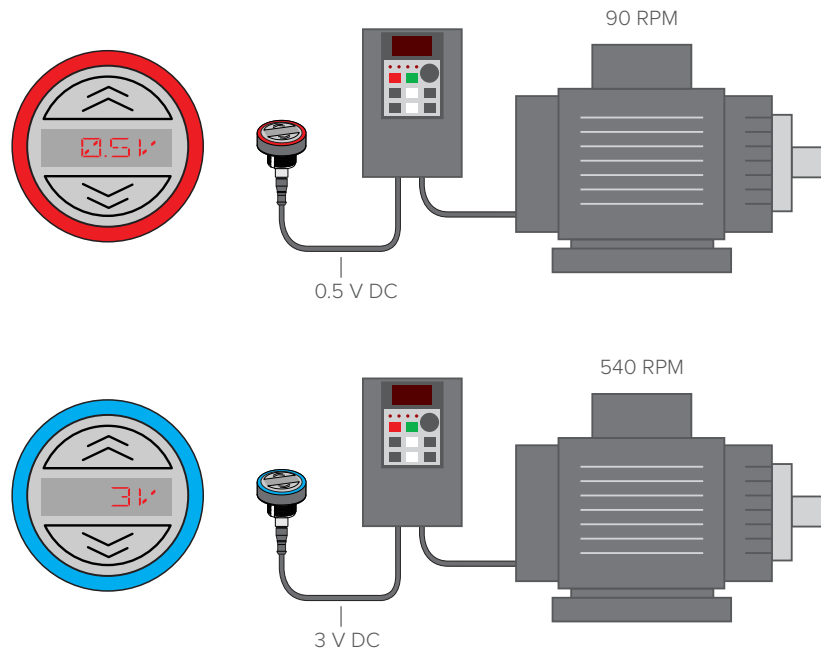
BANNER®

Compact, touch-sensitive interface delivers output control and real-time operator feedback

Analog Models

Analog models provide selectable 0–10 V or 4–20 mA outputs for smooth dimming, speed control, or other analog-driven applications.
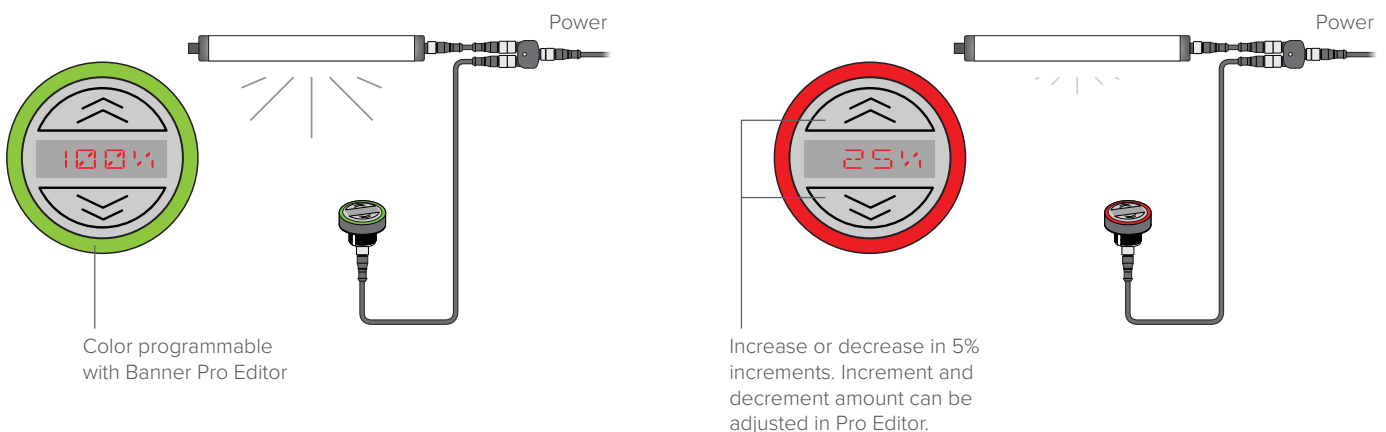
Example: Controlling Motor Speed via a Variable Frequency Drive (VFD)

90 RPM

0.5V

0.5 V DC

540 RPM

3V

3 V DC

Pulsed Model

The pulsed model generates selectable PWM or PFM signals to control devices like Banner's PWM-enabled WLS28 lights or any PWM- or PFM-controllable device.
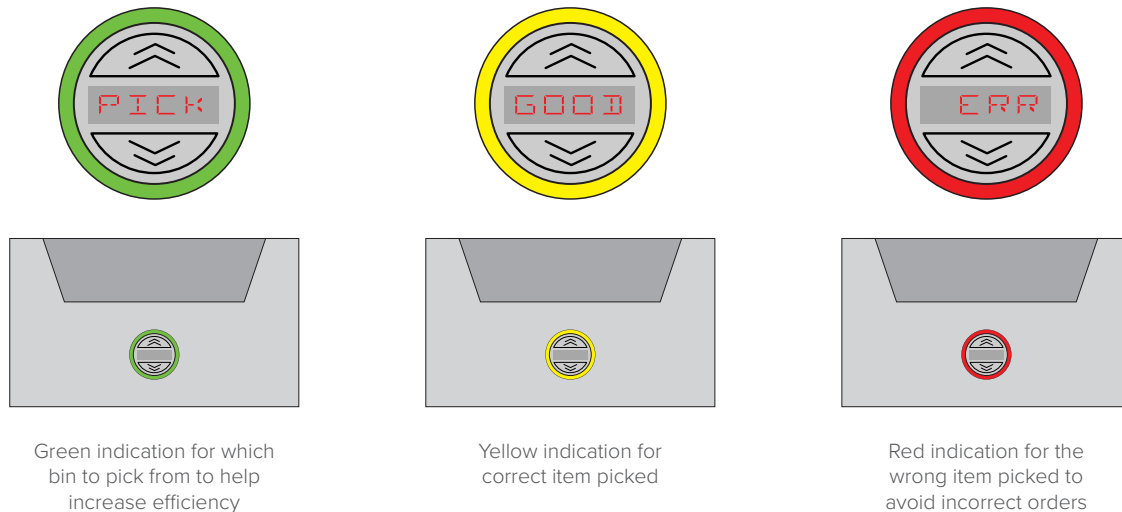
Example: Workstation Light Brightness with PWM input

Power

100%

Color programmable with Banner Pro Editor

Power

25%

Increase or decrease in 5% increments. Increment and decrement amount can be adjusted in Pro Editor.
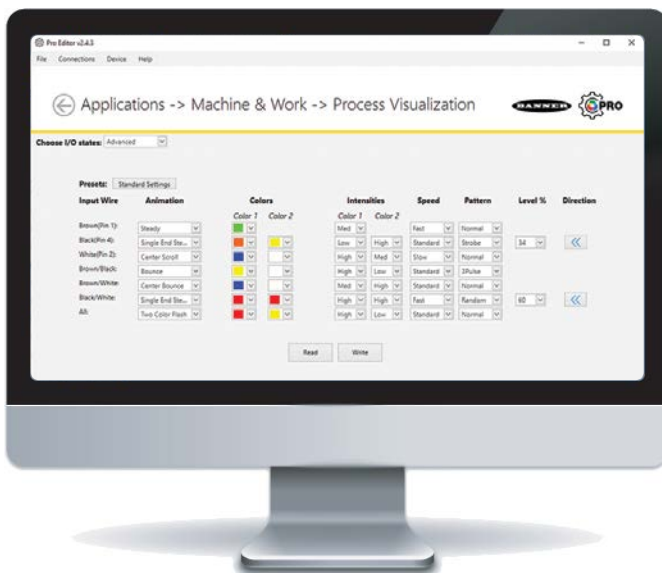
Pick-to-Light Model

The discrete model can be configured to change text, color, and animation based on system input or user touch, and generates a discrete output when touched—ideal for interactive tasks like part picking and confirmation.

Example: Bin Pick Verification

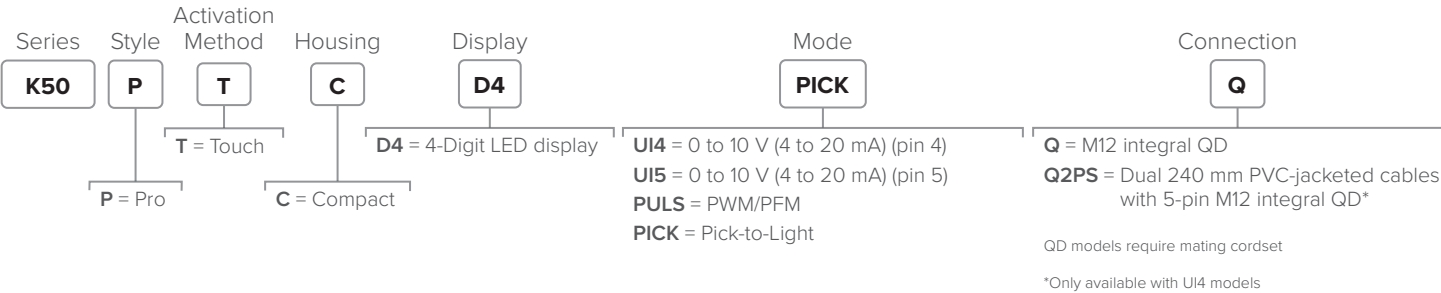| Green indication for which bin to pick from to help increase efficiency | Yellow indication for correct item picked | Red indication for the wrong item picked to avoid incorrect orders |

Pro Editor Configuration Software

Banner's free Pro Editor software allows users to easily configure the K50 I/O Touch Control with Display to match task-specific interaction and indication requirements. Adjust LED color, flashing, rotation, intensity, and advanced animations to reflect output values or direct operator action. Configure text to deliver clear instructions or system messages. Set output function, state, and on/off delays—or define pick logic in PICK models—to optimize device behavior for process requirements, all from an intuitive PC interface.

Configurable Pro Series Devices

The Pro Series configurable multicolor LED devices from Banner Engineering offer limitless possibilities for advanced indication of dynamic machine states, operator interaction, and process status. The Pro Series is ideal if you are looking for advanced capabilities or flexibility beyond a traditional device. Whether you have discrete or protocol controlled devices, the Pro Series use Discrete I/O, IO-Link, Ethernet, or Modbus for real-time communication across your factory.

BANNER

K50 I/O Touch Control with Display

Series	Style	Activation Method	Housing	Display		Mode		Connection
K50	**P**	**T**	**C**	**D4**		**PICK**		**Q**

T = Touch

P = Pro

C = Compact

D4 = 4-Digit LED display

UI4 = 0 to 10 V (4 to 20 mA) (pin 4)
UI5 = 0 to 10 V (4 to 20 mA) (pin 5)
PULS = PWM/PFM
PICK = Pick-to-Light

Q = M12 integral QD
Q2PS = Dual 240 mm PVC-jacketed cables with 5-pin M12 integral QD*

QD models require mating cordset

*Only available with UI4 models

Wiring and I/O Information

Pin	Wire Color	UI4 Models	UI5 Models	PULS Models	PICK Models
1	Brown	Power: 12–30 V DC	Power: 12–30 V DC	Power: 12–30 V DC	Power: 12–30 V DC
2	White	Not used	Not used	Not used	Input: 12–30 V DC
3	Blue	Common: 0 V DC	Common: 0 V DC	Common: 0 V DC	Common: 0 V DC
4	Black	Output: 0–10 V DC, or 4–20 mA	Not used	Output: PWM/PFM	Output: 12–30 V DC
5	Gray		Output: 0–10 V DC, or 4–20 mA		

Specifications

ø 50 mm

17 mm

48 mm

M30 x 1.5

Q2PS Models

Supply Voltage	UI4/UI5 models: 18 to 30 V DC PULS/PICK models: 12 to 30 V DC
Supply Current	225 mA at 12 V 100 mA at 24 V 85 mA at 30 V
Construction	Polycarbonate
Operating Conditions	–40 to +50 °C
Environmental Rating	IP67, IP69K
Certifications	CE c(UL)us LISTED UKCA

Accessories

SMB30A
Right-angle bracket

SMB30FVK
V-clamp bracket

SMB30RAVK
Right-angle v-clamp bracket

SMBAMS30P
Flat bracket with curved slot

SMBAMS30RA
Right-angle bracket with curved slot

PRO-KIT
A single Pro-Kit provides everything required to program the K50 I/O Touch Control with Display using the free Pro Editor software, and is required only for setup, not daily operation.

SMB30MM
Right-angle bracket with clearance for M6 hardware

SMB30SC
Swivel bracket

SMB30FA
Swivel bracket with tilt and pan

LMF3050B
Flange bracket

CSB-M1240M1240
T splitter

M12 Double-Ended
Straight connector models

4-Pin	5-Pin
BC-M12F4-M12M4-22-2 2 m (6.5')	**BC-M12F5-M12M5-22-2** 2 m (6.5')
BC-M12F4-M12M4-22-5 5 m (16.4')	**BC-M12F5-M12M5-22-5** 5 m (16.4')
BC-M12F4-M12M4-22-10 10 m (32.8')	**BC-M12F5-M12M5-22-10** 10 m (32.8')