

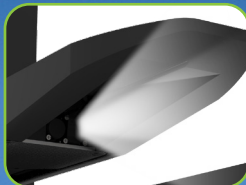
Enhance Your Forklift with Maximum Visibility & Precision.



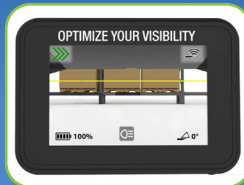
Display Dimensions 226 x 127 x 61mm



Camera assembly and wiring protected within fork shank for longevity



Low-light camera assist for versatile handling



Adjustable horizontal target line and fork tilt angle indicator



Fully wireless transmission over the mast to 15 meters



Auxiliary wide-angle camera

APPLICATIONS

With a camera embedded, and an optional remote mounted camera, Camera & Sensor Forks offer lift truck operators the visibility and precision for maximum efficiency while handling. Sensor Forks additionally offer a distance sensor and a vertical object detection sensor, which allow you to see exactly where your fork meets the load. The optional auxiliary camera can provide an additional point of view to support the operations. The display allows wireless or hardwired communications with the embedded components to facilitate installation. Improve productivity in any situation where fork tip alignment or fork angle are critical to successful operation, including: high stacking, double deep pallet racking, low light environments, bin post alignment, boat handling, label reading and more. Camera and Sensor Forks help reduce damage to product and pallets.

FEATURES - Camera Forks & Sensor Forks

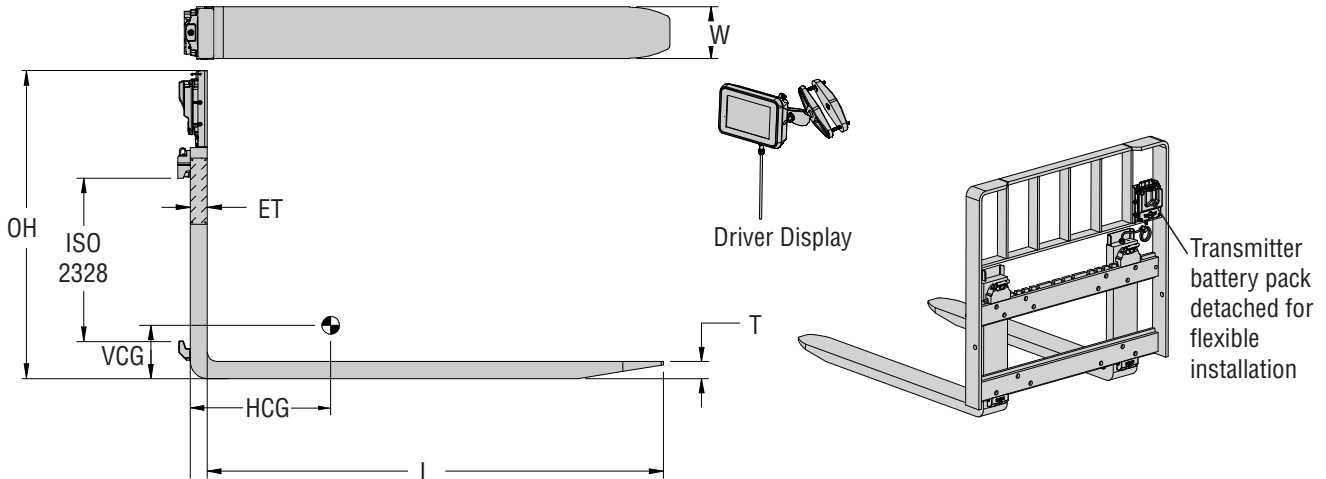
- Low light camera with illumination assist embedded in the fork tip
- Packaged into single fork
- Wireless communication up to 15 meters (50 feet) between fork and display
- Cross talk protection (25+ units at one site under optimal communication conditions)
- Camera with adjustable field of view (20° of horizontal swing and 8° of vertical swing)
- 12-hour battery life; no tools required to change battery (Bluetooth unit only)
- Adjustable horizontal and vertical target lines Fork tilt angle indicator (+/- 80°)
- Manual camera selection between the fork camera and the auxiliary camera
- Manual screen blanking
- Digital Inputs for Advance Features (e.g. screen blanking, auto camera selection, etc.)
- Display languages include English, Italian, German, Spanish and Japanese
- External illuminated power switches on battery pack & display for easy on/off

OPTIONS

- Drop shank forks
- Custom fork cross-sections and lengths upon request – Shaft or custom mounting upon request
- Remote backpack for trucks with load backrest
- Hard-wired version (no bluetooth - Sensor Forks only)
- Auxiliary camera with forward and rearward views
- Hardware kits for auto camera selection or screen blanking (Consult Cascade for availability)

FEATURES - Sensor Forks

- Distance sensor with adjustable trigger points
- Vertical object detection sensor
- Object detection and distance indicators are shown on the display



Catalogue Order No.	Capacity@ Load Centre	Fork Width	Fork Thickness	Fork Length	Overall Height	Effective Thickness	Horizontal Centre of Gravity	Vertical Centre of Gravity	Weight	Mounting Class
	kg@mm	BW mm	BT mm	L mm	OH mm	ET mm	HCG mm	VCG mm	kg	ISO 2328 mm
Camera Forks Wi-Fi Top Mounted Backpack										
25C-CWF-2A-2111	2500@600	120	40	1000	775	40	293	135	110	2A
25C-CWF-2A-2117	2500@600	120	40	1100	775	40	335	127	118	2A
25C-CWF-2A-2121	2500@600	120	40	1200	775	40	378	121	125	2A
25C-CWF-2A-2143	2500@600	120	40	1600	775	40	557	101	155	2A
45C-CWF-3A-2111	4500@600	125	50	1000	880	50	274	174	152	3A
45C-CWF-3A-2117	4500@600	125	50	1100	880	50	315	165	162	3A
45C-CWF-3A-2121	4500@600	125	50	1200	880	50	357	157	172	3A
45C-CWF-3A-2143	4500@600	125	50	1600	880	50	531	132	211	3A
50C-CWF-4A-2111	5000@600	150	50	1000	1070	50	250	235	205	4A
50C-CWF-4A-2121	5000@600	150	50	1200	1070	50	327	214	228	4A
50C-CWF-4A-2143	5000@600	150	50	1600	1070	50	494	182	275	4A
50C-CWF-4A-2145	5000@600	150	50	1800	1070	50	580	170	299	4A
80C-CWF-4A-2111	8000@600	150	65	1000	1070	65	251	242	258	4A
80C-CWF-4A-2121	8000@600	150	65	1200	1070	65	328	220	288	4A
80C-CWF-4A-2143	8000@600	150	65	1600	1070	65	494	188	350	4A
80C-CWF-4A-2145	8000@600	150	65	1800	1070	65	581	175	380	4A
Sensor Forks Wi-Fi Top Mounted Backpack										
25C-SWF-2A-2111	2500@600	120	40	1000	775	40	296	134	110	2A
25C-SWF-2A-2117	2500@600	120	40	1100	775	40	338	127	118	2A
25C-SWF-2A-2121	2500@600	120	40	1200	775	40	381	121	126	2A
25C-SWF-2A-2143	2500@600	120	40	1600	775	40	561	101	155	2A
45C-SWF-3A-2111	4500@600	125	50	1000	880	50	277	173	153	3A
45C-SWF-3A-2117	4500@600	125	50	1100	880	50	317	164	163	3A
45C-SWF-3A-2121	4500@600	125	50	1200	880	50	358	157	172	3A
45C-SWF-3A-2143	4500@600	125	50	1600	880	50	533	132	211	3A
50C-SWF-4A-2111	5000@600	150	50	1000	1070	50	252	234	205	4A
50C-SWF-4A-2121	5000@600	150	50	1200	1070	50	329	213	229	4A
50C-SWF-4A-2143	5000@600	150	50	1600	1070	50	495	181	275	4A
50C-SWF-4A-2145	5000@600	150	50	1800	1070	50	583	169	299	4A
80C-SWF-4A-2111	8000@600	150	65	1000	1070	65	252	242	258	4A
80C-SWF-4A-2121	8000@600	150	65	1200	1070	65	328	219	288	4A
80C-SWF-4A-2143	8000@600	150	65	1600	1070	65	495	187	350	4A
80C-SWF-4A-2145	8000@600	150	65	1800	1070	65	582	175	380	4A

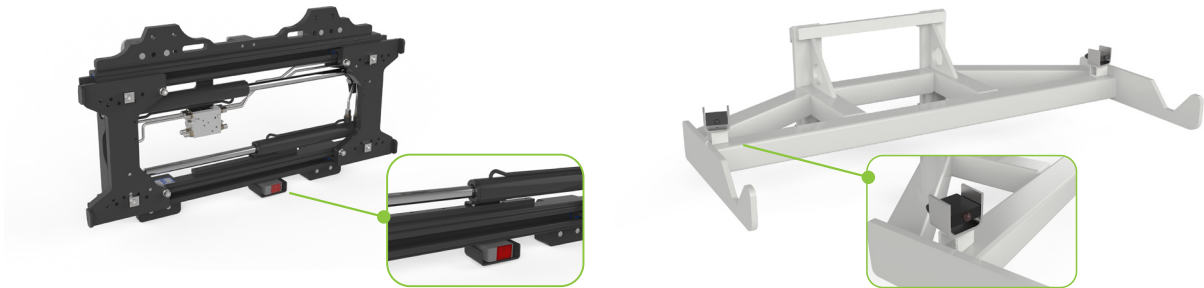
- ▶ Camera & Sensor Forks display unit require 9-48 volt truck power supply. Other voltages upon request.
- ▶ Camera & Sensor Forks ship with a display, mounting bracket, rechargeable battery pack and battery charger.
- ▶ Drop shank fork and custom fork length options available.
- ▶ Shaft and custom mounting options available.
- ▶ Remote backpack models available. Consult Cascade.
- ▶ Hardwired Models available: Hardwired models don't include Wi-Fi transmitter, batteries and charger.
- ▶ Hardwired models require a connection cable, see options.
- ▶ Auxiliary camera available. **Consult Cascade.**
- ▶ Screen Blanking and Automatic Switching between main and auxiliary camera options available. **Consult Cascade.**



The complete camera solution available in a variety of configurations and can be installed anywhere on Cascade attachments

Catalog Order No.	Connectivity	Camera Type	Light	Tilt Sensor	Distance Sensor
1C-CSH-X-1200	Hardwired	Camera Only	√	—	—
1C-CSW-X-2200	Wireless	Camera Only	√	√	—
1C-SSH-X-1200	Hardwired	Camera w/ Sensor	√	√	√
1C-SSW-X-2200	Wireless	Camera w/ Sensor	√	√	√

- ▶ Camera Kits display require 9-48 volt truck power supply. Other voltages upon request.
- ▶ Wireless Camera kits ship a display, Ram mounting for display, Wireless transmitter, universal camera bracket, battery and charger.
- ▶ Hardwired models don't include Wi-Fi transmitter, batteries and charger.
- ▶ Hardwired models include a 10m cable (not suitable for internal reeving).
- ▶ Auxiliary camera available. **Consult Cascade.**



SPECIFICATIONS		
Display	Power Supply	9-48 VDC/2A
	Screen Size	205mm (8")
	Resolution	1280 x 800px
	Display Dimensions (WxHxT)	220mm x 150mm x 62mm (8.6" x 5.9" x 2.4")
Primary Camera	Horizontal Field of View	36 degrees
	Power supply	Battery (WiFi) or cable to display
	Mounting	flange for machined fork tip or alternate mounting
	Resolution	2MP
Auxiliary Camera	Horizontal Field of View	130 degrees
	Power supply	Cable to Display
	Dimensions	44 x 84 x 68mm (1.7" x 3.3" x 2.7")
	Resolution	2MP
Battery Powered Camera System	Communication	Wireless
	Battery Voltage	15V Li-Ion battery pack
	Operating Time	~12 hours continuous use
Powered by the Truck Camera System	Communication	Interconnect to Display using CAT5e min Ethernet cable - Weipu 8pin connectors
Environmental	Temperature	0°C to 40°C Operating (32°F to 104°F) -20 to 60°C Storage (-4°F to 140°F)
	Ingress Protection	Display: IP65 – Other components: IP67