

Sensor™ PHC

The **Sensor PHC** is an easy-to-use and reliable voltage-sensing height control for conventional plasma applications. The benefits realized are substantial in terms of:

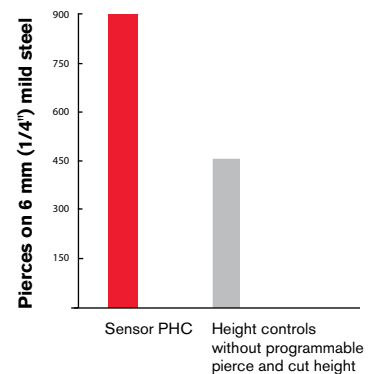
- Consumable life improvement
- Improved cut quality
- Reduced operator intervention

The Sensor PHC offers easy installation on new or existing conventional plasma cutting tables with any CNC and a broad range of plasma systems. Available in several application-specific configurations, the Sensor PHC delivers improved performance at a reduced cost compared to other height control solutions.



Better consumable life

- Spatter during piercing presents a threat to the nozzle and shield.
- Setting the height of the torch higher during piercing protects the consumables by moving them away from the spatter.
- The Sensor PHC offers programmable and different settings for both pierce and cut heights to automatically position the torch.



Hypertherm®

Improved cut quality performance

The Sensor PHC offers improved quality over the entire life of the consumables.

The following cut-edge angle dimensions were measured at the beginning and end of a 450 pierce-and-cut test for both setups.

	1st cut sample, maximum kerf angle	451st cut sample, maximum kerf angle
No PHC	4°	11°
Sensor PHC	3°	4°

Angles were measured on all four sides, all four samples. The lower the number, the better the cut quality. The angles will vary with thickness.

Magnetic breakaway

Tethered magnetic breakaway for consistent positioning during cutting and retention after collision or consumable change.

Powerful magnets and keyed mounting plate for fast and repeatable repositioning of the torch.



Applications of height controls

		Sensor PHC	Command THC
Plasma	Powermax45 Powermax65 Powermax85 Powermax1650		Exceeds requirement
	HSD130		Exceeds requirement
	HT2000 MAX200	External relay for start current on MAX200	
	HPR130 HPR260	Reduced cut quality performance	
	HT4001 HT4400		
	Competing plasma		
Table	Water	Internally tested on downdraft only	
	Downdraft		
CNC	Hypertherm		
	Other		

Ideal
 Feasible
 Not feasible

A stand-alone true voltage-sensing height control

- Programmable for separate pierce height and cut height for improved consumable life.
- Simple operational controls and fault indicators for easy training, operation and diagnostics.
- The lifter has a built-in keyed magnetic breakaway for the torch holder that protects the torch during plate collisions by sensing the collision during separation from the mount. It then provides fast and repeatable recovery due to the keyed assembly with magnets that retain the mounting block after the torch is repositioned.
- No operator input required while cutting.

Specifications

- 5120 mm/m (200 ipm) maximum speed
- 150 mm (6") range of motion
- 50 V – 210 V arc voltage set-point for arc-voltage feedback and adjustment that is accurate to 1 arc-volt
- Ohmic contact and stall-force initial height sense
- On/off signal provided by CNC

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Hypertherm®

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