BRIEF INFORMATION

Modular accelerator Pedal sensors

- Flexible configuration according to customer requirements
- Contactless measurement principle
- Slim and sturdy design
- Simple mechanical connection
- Redundant output signals
- High measurement precision
- No programming in the vehicle necessary
- High interference immunity against electrical and magnetic fields

PRODUCT FEATURES

Application
These modular accelerator pedals are especially designed for robust applications like agricultural and construction vehicles. The robust mechanical concept of the system guarantees functional reliability under toughest conditions. Thanks to the contactless system of measurement provided by HELLA's own CIPOS sensor (see description of construction and function) and its extremely low level of mechanical wear, it is advisable to choose such a sensor system over contact-type accelerator pedals, especially for small, frequently recurring movements.

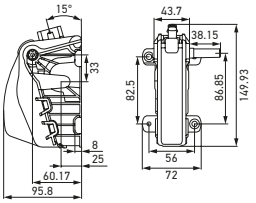
Design and Function
Agricultural and construction machinery manufacturers benefit from shorter development times and thus lower costs thanks to extremely strong modularity: The central element of the system is the base unit with the integrated HELLA sensor concept CIPOS (**C**ontactless **I**nductive **Po**sition **S**ensor), which enables inductive and contactless position measurement. This ensures not only high precision, but is also wear-free. A sheet metal cursor is routed from the pedal plate with a guide rod via sensor conductor paths on the measuring board. Two galvanically isolated sensors then each generate an output signal. The position information can be provided in classic analog or digital form, and the output signals are programmable and customizable.

Following the modular principle, customers can now select a pedal arm – either upright or suspended, made of plastic or steel. In addition, different connectors and mounting elements are available, making it easy to integrate the accelerator pedal into all vehicle architectures.

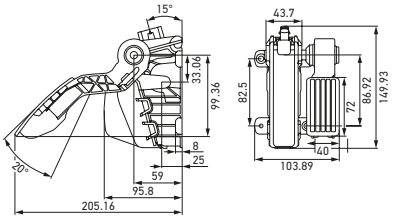
TECHNICAL DETAILS

Technical data	
Operating voltage range	Single-voltage 5 V ± 0.5 V
Rated voltage	12 V
Start / end force customizable Actuation angle	< 20°
Output signals	2x analogue with ASIL B (D) 2x SENT with ASIL B (D)
Sensor accuracy	± 0,5°
Approved	UN-R10, FMVSS 302, FMVSS 124
Operating temperature	- 40 °C to + 85 °C
Protection class (mechanical)	IP 5K4
Protection class (electric, with attached mating connector)	IP 6K9K
Mating connector	Standard: Molex 31402-6110 But also customizable

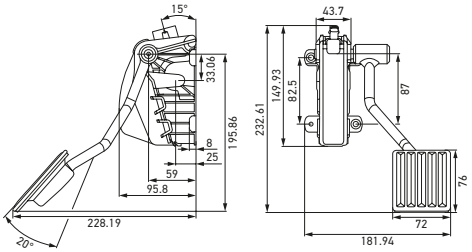
Dimensional sketch (approximate dimensions)



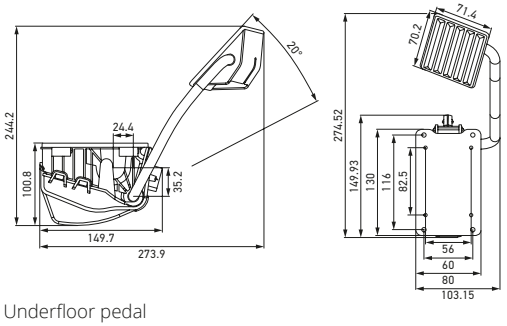
Base



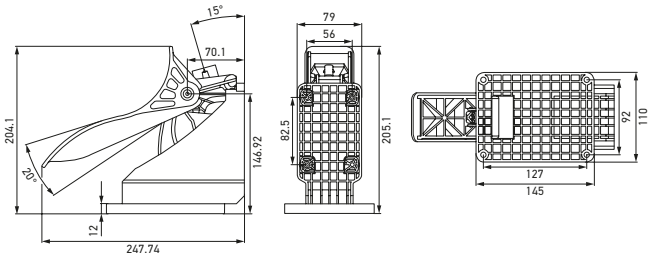
Suspended pedal – plastic lever



Suspended pedal – steel lever



Underfloor pedal



Floormounted pedal

PROGRAM OVERVIEW

Product picture	Description	Part number
	Accelerator pedal, pedal arm axis	**On request**
	Accelerator pedal, floor-mounted	**On request**
	Accelerator pedal, suspended, with steel lever arm	**On request**
	Accelerator pedal, suspended, with plastic lever arm	**On request**
	Underfoor pedal	**On request**