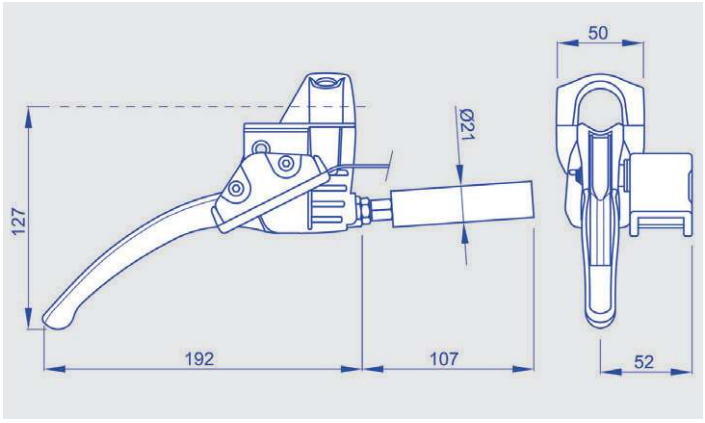
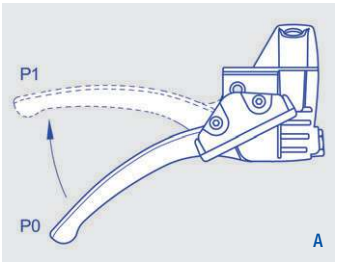
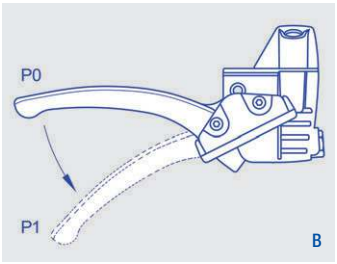
SINGLE ELECTRONIC LEVERS
MECHANICAL COMPONENT AND ORDER FORM
MODEL LA 100EL

Characteristics:

Assembly: on tubes
Fastening type: nylon collar
Functioning from P0 to P1: lever actuating or lever release (P0 corresponds to the beginning of the sensor scale)
Tube outer diameter: 22 mm - 25 mm - 26 mm - 27 mm - 28 mm
Lever return: with spring device
Lever material: nylon
Colour: black







To order: compose, please, your product code inserting the boldfaced code corresponding to the chosen option in the proper square.

LA 100EL		

Functioning “P0 – P1” lever actuating: **A**
Functioning “P0 – P1” lever release: **B**

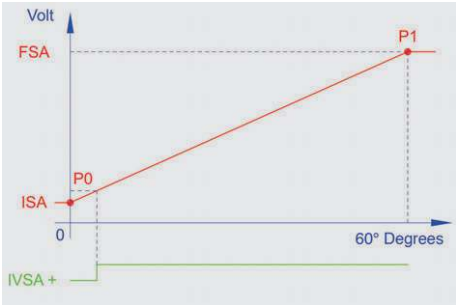
Outer tube Ø mm 22: **1**
Outer tube Ø mm 25: **2**
Outer tube Ø mm 26: **3**
Outer tube Ø mm 27: **4**
Outer tube Ø mm 28: **5**

SINGLE ELECTRONIC LEVERS
PREVALENT SOFTWARE COMPONENT AND ORDER FORM
MODEL LA 100EL

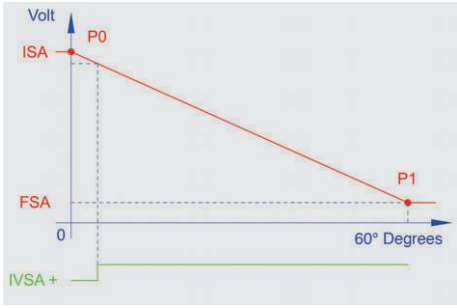
Main characteristics:

Angle signal output: analog
Beginning scale angle signal (IS): 0,2→4,9 Vdc
Full-scale angle signal (FS): 0,2→4,9 Vdc
Digital signal polarity (IVS validation): positive or negative

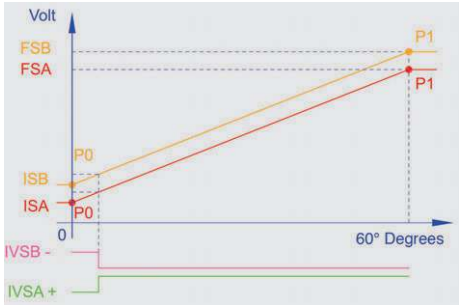
N.B. The below described software are examples extrapolated from a much broader generality.
The performances can therefore be modified. For specific and different needs, Start s.r.l. is at disposal.



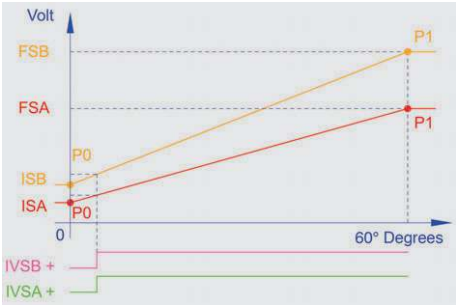
AF1: Analog output, positive IVSA, STL1D sensor



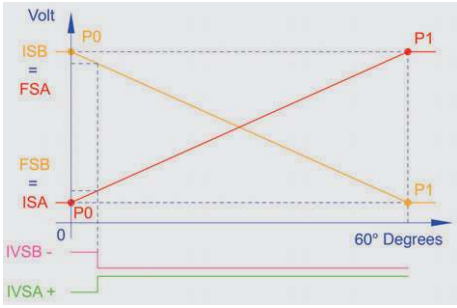
AF2: Analog output, positive IVSA, STL1D sensor



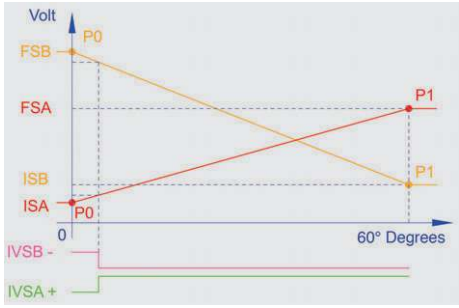
AF3: Two parallel analog outputs, positive IVSA and negative IVSB, STL1 DUAL sensor



AF4: Two discordant analog outputs, positive IVSA and positive IVSB, STL1 DUAL sensor



AF5: Two crossed analog outputs, positive IVSA and negative IVSB, with ISA=FSB and FSA=ISB values, STL1 DUAL sensor



AF6: Two crossed analog outputs, positive IVSA and negative IVSB, STL1 DUAL sensor

To order: compose, please, your product code inserting the boldfaced code corresponding to the chosen option in the proper square.

AF							

Software AF1: **1**
Software AF2: **2**
Software AF3: **3**
Software AF4: **4**
Software AF5: **5**
Software AF6: **6**

ISA beginning scale signal from: **0,2** to **4,9** Vdc

FSA full-scale signal from: **0,2** to **4,9** Vdc

IVSA signal positive polarity: **P**
IVSA signal negative polarity: **N**

IVSB signal positive polarity (only for AF3, AF4, AF5, AF6): **P**
IVSB signal negative polarity (only for AF3, AF4, AF5, AF6): **N**

FSB full-scale signal (only for AF3, AF4, AF5, AF6) from: **0,2** to **4,9** Vdc

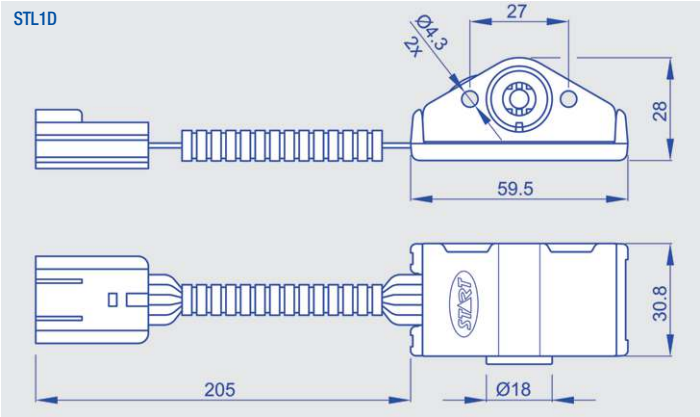
ISB beginning scale signal (only for AF3, AF4, AF5, AF6) from: **0,2** to **4,9** Vdc

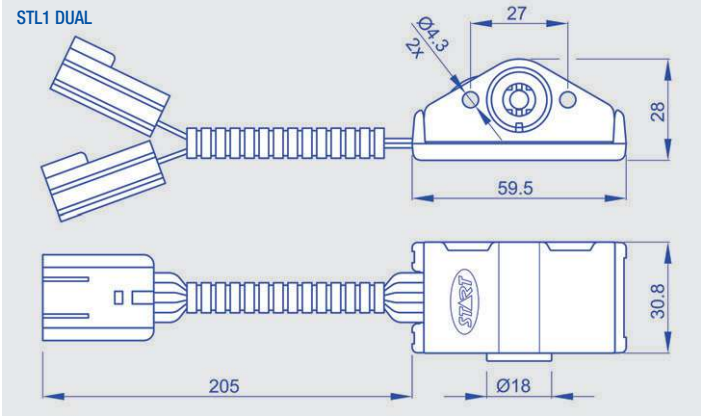
The beginning of the sensor scale (ISA – ISB) corresponds to the mechanical zero of the control.

SINGLE ELECTRONIC LEVERS
HARDWARE COMPONENT AND ORDER FORM
MODEL LA 100EL

Main characteristics:

Power input: 5 Vdc or 8→36 Vdc (only STL1D)
Consumption: 20 mA typ (STL1D) and 40 mA typ (STL1 DUAL)
Protection: silicone filler or coating
Connector: Delphi 10 pole or free cables





To order: compose, please, your product code inserting the boldfaced code corresponding to the chosen option in the proper square.

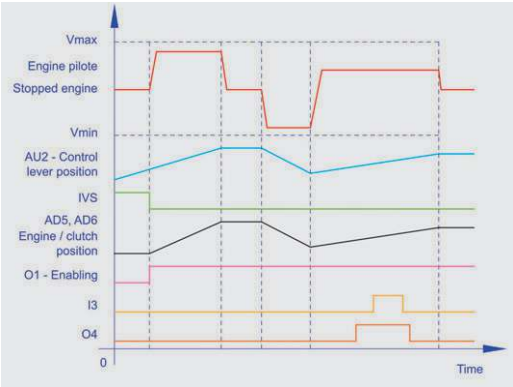
SENSOR			

Power input 5 Vdc: **5**
Power input 8→36 Vdc (only STL1D): **8**

Protection with silicone filler: **R**
Protection with coating: **C**

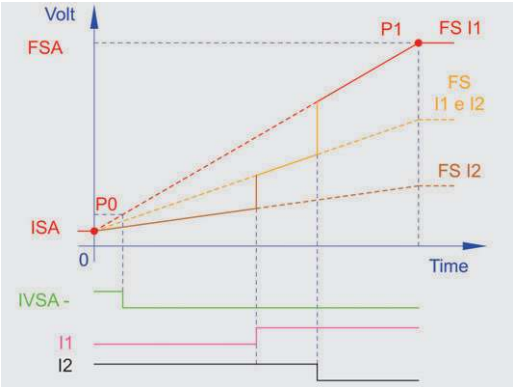
Connector Delphi 10 pole: **D**
Free cables: **L**

SINGLE ELECTRONIC LEVERS
APPLICATIONS EXAMPLES WITH SENSOR STL2D-HP
MODEL LA 100EL



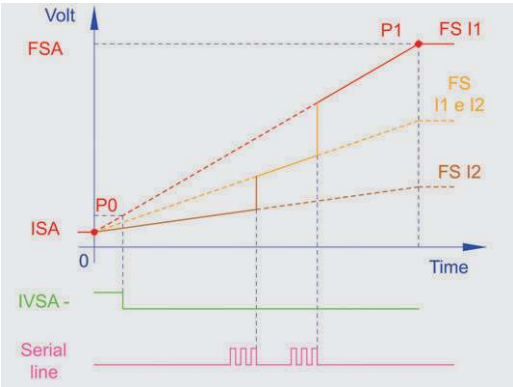
MOTORIZED CLUTCH

In the beside graphic the functioning of a motorized clutch is represented that can facilitate and secure the operators' work. The STL2D-HP, through analog inputs that are connected to position sensors of the control lever and of the engine drive shaft, controls the position of the clutch disc, piloting the engine with the analog output. The picture exemplifies the hypothetical manoeuvre of an operator that at first moves the clutch lever decisively, holds it for a while, releases it and then moves it much slower. Some digital signals are used to enable the engine and for other input and/or output not better specified functions.



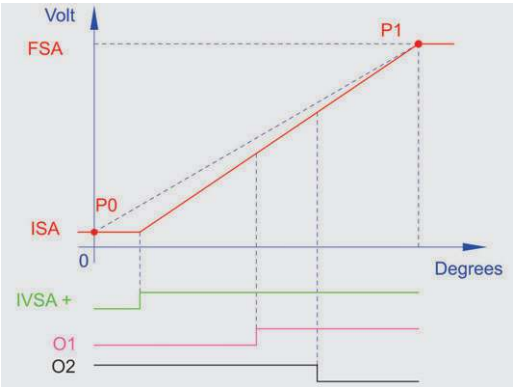
VARIATION OF THE MAXIMUM SPEED

For reasons of practicality and safety, the maximum achievable speed by a vehicle may need to be changed during the operation. It is the case of the reverse gear, or of difficult manoeuvres. In the beside graphic, some digital input signals of the STL2D-HP are used in this regard, to change the maximum speed of the vehicle.



VARIATION OF THE FULL-SCALE VALUE

As described above, the maximum achievable speed by a vehicle may need to be changed, for example in case of reverse gear or of difficult manoeuvres. In the beside graphic the STL2D-HP available serial line is used to receive a command of full-scale (FS) change.
NOTE: The serial line, used here for a rather simple function, has a much more general and flexible use than the digital signals and can turn the accelerator into a device rich in functionality, which can satisfy the customer's different exigences.



VARIATION OF THE VALIDATION MANAGEMENT

In the beside graphic a variant of the validation (IVS) management is represented. In this case the output remains at the beginning scale value until the IVS triggers. In this way you eliminate the "jump" in the signal trajectory, which here is visible in the blue sketched trajectory. Of course this different modality DOES NOT involve a faithful proportionality between the output signal and the angular position, but it involves an entity slippage that depends on the IVS value and that is variable during the trajectory, until it vanishes at FS. A system piloted by a sensor, programmed in this way, could evidently ignore the IVS signal, because the output is insensitive to the lever/pedal movement until the IVS planned value is reached, so that this modality can be called "implicit IVS".