ELESA-CLAYTON position indicators

General features

ELESA-CLAYTON rotary controls are used to set and regulate a wide variety of machine functions.
In general these indicators are used to regulate flows, capacities, strokes, setting of speed variators, etc.
Each device consists of:

- a handwheel/knob, to manoeuvre the control spindle, thus changing the position of the machine element
- a position indicator, which provides the position of the machine element.

Position indicators

ELESA-CLAYTON position indicators can be classified according to the type of reading or movement.
The indicators are normally supplied separately from their relative handwheels/knobs, except for integral models, whose indicator is fitted in during the production.

Type of reading

Analogue: the reading is displayed by means of two rotating pointers over a graduated dial.
Digital-Analogue: the reading is directly displayed by means of a roller counter and a rotating pointer over a graduated dial.
Digital: the reading is directly displayed by means of a roller counter.
LCD Digital: the reading is directly displayed by means of a digital electronic display.
The analogue indicators are normally provided with a graduated dial and two pointers which indicate the number of turns and part of a turn made by the control spindle starting from an initial position zero.
The indicators with digital-analogue, digital and LCD digital reading are provided with a roller counter or a display which indicates the linear displacement of the machine element connected to the control spindle from the initial position zero.

Type of functioning

Gravity Movement: is used when the handwheel spindle is horizontal or max 60° inclined. The rotation of the handwheel with the indicator makes the pointers move while the dial, appropriately counterbalanced, is kept still by the gravity force.
Positive drive Movement: is used on spindles in any position. The rotation of the handwheel with the indicator makes the pointers move while the dial is kept still by an anchor pin fitted to the machine.
Direct drive Movement: is used on control spindles in any position, the indicator is directly mounted on the control spindle and is kept in position by means of a referring back pin.

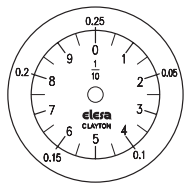
How to select the position indicators

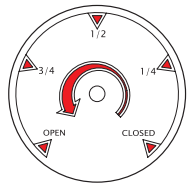
- Establish if it is necessary to display a number of turns or a linear displacement. For the first application choose an analogue indicator. For the second one choose a digital-analogue, digital or LCD digital indicator.
- Establish the indicator and the spindle position on which depends the choice of the requested movement: gravity, positive drive or direct drive.
- Establish the required ratio for analogue types or the reading after one revolution for the following types: digital-analogue, digital and LCD digital.
- Establish the direction of rotation.
  For clockwise increasing readings (right) = D.
  For anticlockwise increasing readings (left) = S.
- Consider the conditions of use of the handwheel i.e. outdoors, vibrations, corrosive environments, etc. See the complete data on the page of the chosen indicator.
- Choose the appropriate handwheel/knob for the application considering the diameter and the grip required to transmit the necessary torque. Other factors to take into consideration are the control spindle diameter and whether a handle is required for quick operations.

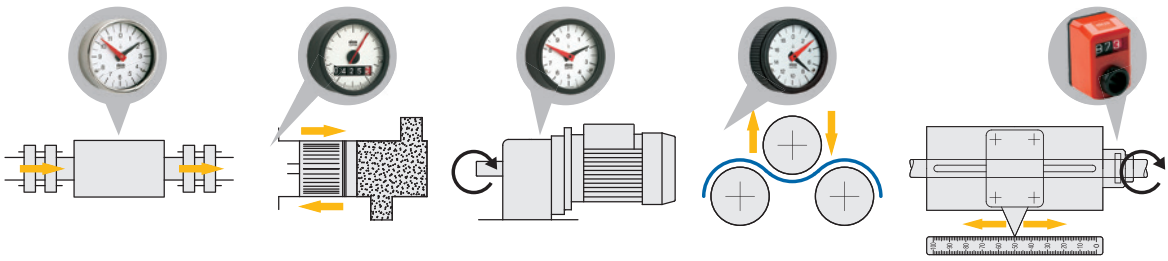
Special executions

ELESA-CLAYTON position indicators standard range available on this catalogue satisfies most applications. Changes to adapt the indicator to particular applications are possible, for example:

- special dials for indicators with analogue or digital-analogue reading, to be developed on the customer's indications
- stainless steel metal parts for application on machines and equipment where laws or particular hygienic and environmental factors make it mandatory to use corrosion resistant materials
- gravity indicators with analogue reading with glycerine-filling for high vibration applications, which may interfere with the reading, and for avoiding condensation on the indicator window
- special ratios on the customer's request and for sufficient quantities, developed by ELESA Technical Department.







Type of reading	Type of Functioning	Type of indicator	
Analogue	Gravity	**GA01 - GA02 - GA05** metal case page 694	
		GA11 - GA12 plastic case page 695	
		MBT-GA indicator fitted in the plastic knob page 696	
	Positive drive	**PA01 - PA02 - PA05** metal case page 699	
		PA11 - PA12 plastic case page 700	
Digital-analogue	Gravity	**GW12** plastic case page 697	
		MBT-GW indicator fitted in the plastic knob page 698	
	Positive drive	**PW12** plastic case page 701	
Digital	Direct drive	**DD50** page 716	
		DD51 page 718	
		DD52R page 721	
LCD digital	Direct drive	**DD51-E** page 724	
		DD52R-E page 726	
		DE51 page 728	
		MPI-15 page 732