

# DD50

ELESA Original design

## Direct drive digital position indicators mini series



### • Base and case

High-resistance polyamide based (PA) technopolymer. Resistant to solvents, oils, greases and other chemical agents.  
Black base.

Case in the following colours:

- **C2**: RAL 2004 orange, glossy finish.

- **C3**: RAL 7035 grey, glossy finish.

On request and for a quantity of at least 10 pieces, it is available in RAL 7021 (C1) grey-black.

The ultrasonically welding between the base and the case prevents separation and avoids dust penetration.

### • Window

Transparent polyamide based (PA-T) technopolymer, moulded over the case and with a perfect seal. Resistant to solvents, oils, greases and other chemical agents (avoid contact with alcohol during cleaning operations).

### • Display

It indicates the displacement of the mechanism controlled by the spindle from the start position (0).

Three-digit roller counter (two black rolls and one red roll or one black roll and two red rolls, three black rolls on request). The digits of red rolls show the decimal values.

The display can be in different positions (see "Table of the possible combinations").

- **AN**: inclined display, counter in upper position.

- **AR**: inclined display, counter in lower position.

- **FN**: front display, counter in upper position.

- **FR**: front display, counter in lower position.

### • Internal gasket

O-ring front sealing in NBR synthetic rubber, between the case and the bushing.

### • Rear gasket

Foam polyethylene, supplied.

### • Bushing

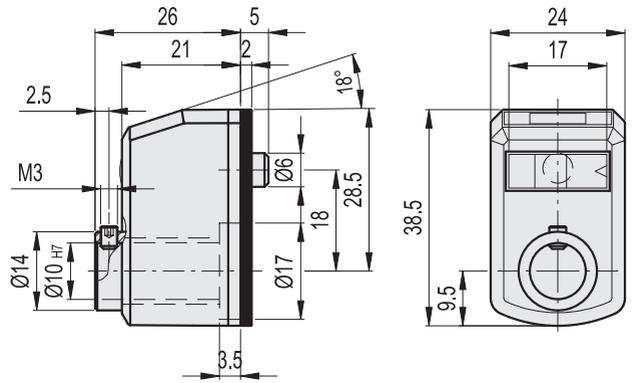
Black-oxide steel bushing with  $\varnothing 10$  mm H7 reamed hole, fitting to shaft by means of a supplied grub screw with hexagon socket and cup end UNI 5929-85.

### • Direction of rotation

- **D**: clockwise. Increasing values with clockwise rotation of the bushing.

- **S**: anti-clockwise. Increasing values with anti-clockwise rotation of the bushing.

### • Weight 21 grams.



\* Complete with colour index, example: CE.80103 DD50-AN-0.50-D-C2



### Codes and descriptions of standard combinations

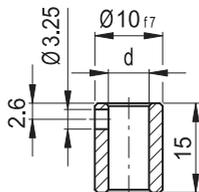
AN (inclined upper)			AR (inclined lower)			FN (front upper)			FR (front lower)		
C2	C3	*	C2	C3	*	C2	C3	*	C2	C3	*
Code	Description		Code	Description		Code	Description		Code	Description	
CE.80103	CE.80101	DD50-AN-0.50-D-	CE.80603	CE.80601	DD50-AR-0.50-D-	CE.81103	CE.81101	DD50-FN-0.50-D-	CE.81603	CE.81601	DD50-FR-0.50-D-
CE.80104	CE.80102	DD50-AN-0.50-S-	CE.80604	CE.80602	DD50-AR-0.50-S-	CE.81104	CE.81102	DD50-FN-0.50-S-	CE.81604	CE.81602	DD50-FR-0.50-S-
CE.80133	CE.80131	DD50-AN-1.00-D-	CE.80633	CE.80631	DD50-AR-1.00-D-	CE.81133	CE.81131	DD50-FN-1.00-D-	CE.81633	CE.81631	DD50-FR-1.00-D-
CE.80134	CE.80132	DD50-AN-1.00-S-	CE.80634	CE.80632	DD50-AR-1.00-S-	CE.81134	CE.81132	DD50-FN-1.00-S-	CE.81634	CE.81632	DD50-FR-1.00-S-
CE.80153	CE.80151	DD50-AN-01.0-D-	CE.80653	CE.80651	DD50-AR-01.0-D-	CE.81153	CE.81151	DD50-FN-01.0-D-	CE.81653	CE.81651	DD50-FR-01.0-D-
CE.80154	CE.80152	DD50-AN-01.0-S-	CE.80654	CE.80652	DD50-AR-01.0-S-	CE.81154	CE.81152	DD50-FN-01.0-S-	CE.81654	CE.81652	DD50-FR-01.0-S-
CE.80183	CE.80181	DD50-AN-02.0-D-	CE.80683	CE.80681	DD50-AR-02.0-D-	CE.81183	CE.81181	DD50-FN-02.0-D-	CE.81683	CE.81681	DD50-FR-02.0-D-
CE.80184	CE.80182	DD50-AN-02.0-S-	CE.80684	CE.80682	DD50-AR-02.0-S-	CE.81184	CE.81182	DD50-FN-02.0-S-	CE.81684	CE.81682	DD50-FR-02.0-S-
CE.80233	CE.80231	DD50-AN-04.0-D-	CE.80733	CE.80731	DD50-AR-04.0-D-	CE.81233	CE.81231	DD50-FN-04.0-D-	CE.81733	CE.81731	DD50-FR-04.0-D-
CE.80234	CE.80232	DD50-AN-04.0-S-	CE.80734	CE.80732	DD50-AR-04.0-S-	CE.81234	CE.81232	DD50-FN-04.0-S-	CE.81734	CE.81732	DD50-FR-04.0-S-
CE.80253	CE.80251	DD50-AN-05.0-D-	CE.80753	CE.80751	DD50-AR-05.0-D-	CE.81253	CE.81251	DD50-FN-05.0-D-	CE.81753	CE.81751	DD50-FR-05.0-D-
CE.80254	CE.80252	DD50-AN-05.0-S-	CE.80754	CE.80752	DD50-AR-05.0-S-	CE.81254	CE.81252	DD50-FN-05.0-S-	CE.81754	CE.81752	DD50-FR-05.0-S-
CE.80293	CE.80291	DD50-AN-10.0-D-	CE.80793	CE.80791	DD50-AR-10.0-D-	CE.81293	CE.81291	DD50-FN-10.0-D-	CE.81793	CE.81791	DD50-FR-10.0-D-
CE.80294	CE.80292	DD50-AN-10.0-S-	CE.80794	CE.80792	DD50-AR-10.0-S-	CE.81294	CE.81292	DD50-FN-10.0-S-	CE.81794	CE.81792	DD50-FR-10.0-S-

### Special executions on request

- AISI 303 stainless steel bushings.
- Special readings after one revolution.
- AISI 303 stainless steel hole reduction sleeves RB50.
- Case in different colours.
- Completely sealed digital position indicators with IP 67 protection class, see IEC 529 table (see catalogue 038, page 503), obtained by means of a brass bushing with double seal ring inside the rear cavity of the base.

### Accessories on request (to be ordered separately)

RB50: black-oxide steel reduction sleeves (see table).



Standard Elements		Mounting hole
Code	Description	dH7
CE.80940	RB50-6	6
CE.80950	RB50-8	8

### Features and applications

Direct drive digital position indicators can be assembled on passing through spindles in any position to give direct reading of the positioning of a machine component. They are suitable also for motor driven applications (see below "Table of the possible combinations").

### Ergonomy and design

Compact roller counter, ergonomically designed digits for rapid reading. The readability of the counter is increased by the magnifying window.

### Assembly instructions

1. Drill a  $\varnothing 6$  mm by 10 mm hole in the body of the machine with a 18 mm centre distance from the spindle to the rear referring pin.
2. Set the spindle to the start or referring position.
3. Fit the indicator with the zeroed roller counter onto the spindle and make sure that the referring pin fit the hole.
4. Clamp the bushing to the spindle by tightening the grub screw with hexagon socket and cup end, according to UNI 5929-85.

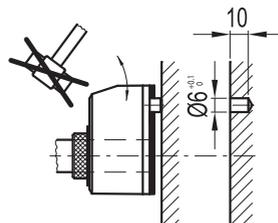
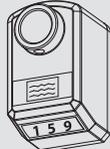
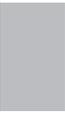


Table of the possible combinations

Display position	Pitch	Reading after one revolution			Speed (rpm)*	Direction of rotation	Colour
		0 1 0	0 1 0	0 1 0			
 inclined upper <b>AN</b>	1.0	01.0	0.10	010	1500	 clockwise <b>D</b>	 RAL 2004 <b>C2</b>
	2.0	02.0	0.20	020	1250		
 inclined lower <b>AR</b>	4.0	04.0	0.40	040	625	 anti-clockwise <b>S</b>	 RAL 7035 <b>C3</b>
	5.0	05.0	0.50	050	500		
 front lower <b>FR</b>	10	10.0	1.00	100	250	 RAL 7021 <b>C1</b>	

DD50 - FR - 010 - S - C3

\* The maximum rotation speed (rpm) of the spindle reported in the table corresponds to a maximum rotation speed of 25000 units per minute of the last roll on the right side of the counter. Rotational speed tests have been performed in our laboratory under standard operating conditions.