

Direct drive digital position indicators



• 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).

Four-digit roller counter (three black rolls and one red roll or two black rolls and two red rolls). The digits of red rolls show the decimal values. An additional graduated scale next to the last decimal digit offers further accuracy of reading.

The display can be in different positions (see "Guide to the choice of standard 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.

• Standard executions

Black-oxide steel bushing with $\varnothing 14$ mm H7 reamed hole, fitting to shaft by means of a supplied grub screw with hexagon socket and cup end.

- **DD51**: black-oxide steel bushing.
- **DD51-SST**: AISI 303 stainless steel bushing.

• 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

65 grams.

Special executions on request

- AISI 303 stainless steel bushings.
- Special readings after one revolution.
- AISI 303 stainless steel hole reduction sleeves RB51.
- Case in different colours.
- Completely sealed digital position indicators with IP 67 protection class, see IEC 529 table (see Catalogue 151 Technical data page A25), obtained by means of a brass bushing with double seal ring inside the rear cavity of the base.

Features and applications

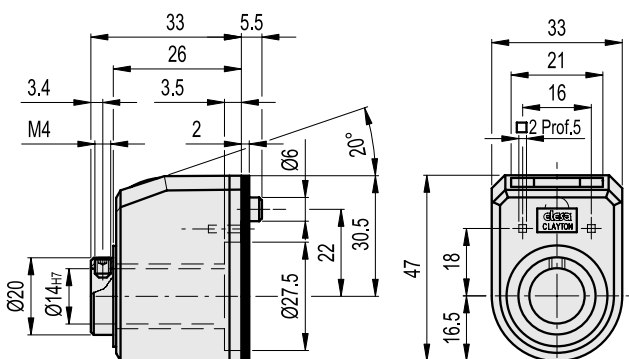
Direct drive digital position indicators can be assembled on passing through spindles in any position to give direct reading of the positioning of a machine component. They are suitable also for motor driven applications (see "Guide to the choice of standard combinations").

Ergonomy and design

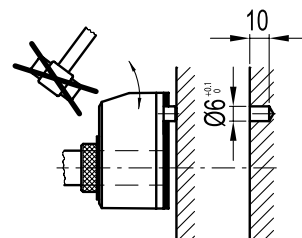
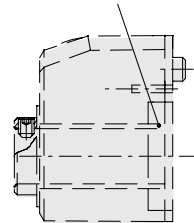
Compact roller counter, ergonomically designed digits for rapid reading. The readability of the counter is increased by the magnifying window.

Assembly instructions

1. Drill a $\varnothing 6$ mm \times 10 mm hole in the body of the machine with a 22 mm centre distance from the spindle to fit 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.

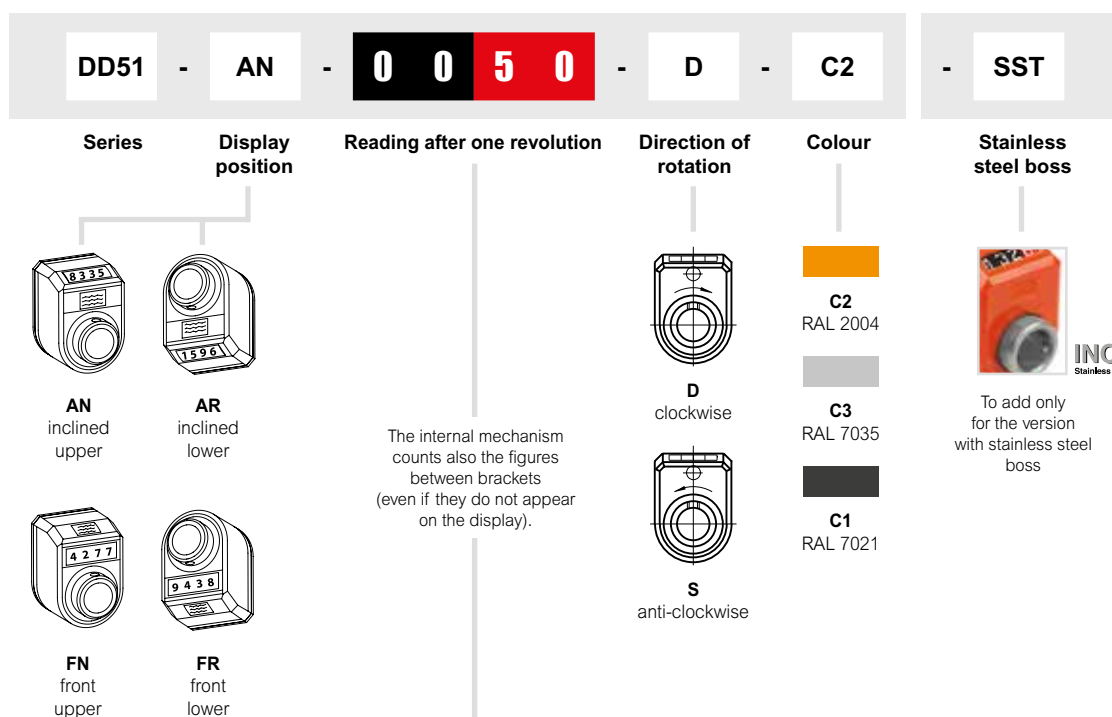


special execution with AISI 303 stainless steel bushing



Guide to the choice of standard combinations

Order description



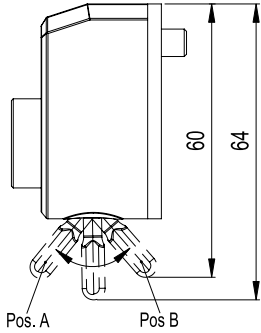
0010	0050	0050	Pitch	Speed (rpm) *
001.0	00.10	0010	1.0	1500
001.2(5)	00.12(5)	0012(5)	1.25	1500
001.5	00.15	0015	1.5	1500
001.5(7)	00.15(7)	0015(7)	1.57	1500
001.7(5)	00.17(5)	0017(5)	1.75	1420
002.0	00.20	0020	2.0	1250
002.0(83)	00.20(83)	0020(83)	2.083	1200
002.5	00.25	0025	2.5	1000
003.0	00.30	0030	3.0	830
004.0	00.40	0040	4.0	625
004.4	00.44	0044	4.4	550
005.0	00.50	0050	5.0	500
005.7	00.57	0057	5.7	435
006.0	00.60	0060	6.0	415
006.5(5)	00.65(5)	0065(5)	6.55	370
007.5	00.75	0075	7.5	330
008.0	00.80	0080	8.0	315
008.3(3)	00.83(3)	0083(3)	8.33	300
010.0	01.00	0100	10.0	250
012.0	01.20	0120	12.0	205
012.5	01.25	0125	12.5	200
015.7	01.57	0157	15.7	150
020.0	02.00	0200	20.0	125

* 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.

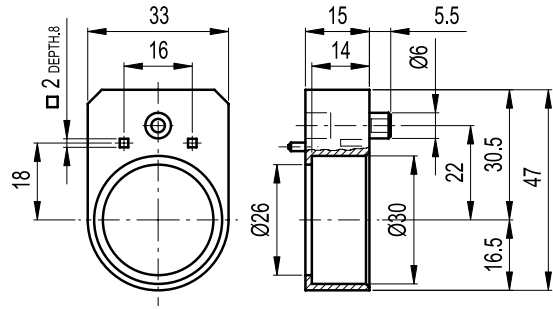
LB - locking device

The DD51-LB position indicators are designed to lock the spindle on which they are mounted to avoid the risk of accidental adjustment alterations due to vibrations.

To lock or unlock the spindle rotation, simply move the lever, in pos. A equivalent to unlocked spindle, in pos. B equivalent to locked spindle. Following repeated locking cycles, the special device is highly wear resistant and functions perfectly over time. To order the indicator with spindle locking add the -LB index after the code and description (e.g. CE.84101-LB DD51-AN-00.50-D-C3-LB).



- **BS51:** glass-fibre reinforced polyamide based (PA) technopolymer spacer plate (code CE.85900).

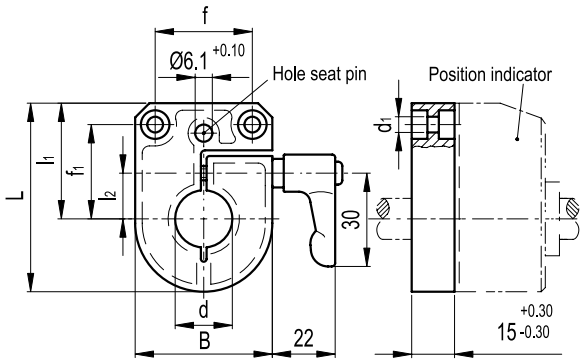


- **MD51** (see Catalogue 151 page 397): polyamide based (PA) technopolymer fluted grip control knob.

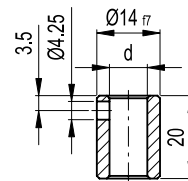


Accessories on request (to be ordered separately)

- **BSA51:** zinc die-cast bases for spindle locking, epoxy resin coating, black colour, matte finish (see table). Type GN 302 adjustable handle. BSA51 locking bases allow an easy and quick locking of the spindles after their positioning. They are equipped with a Ø 6.1 mm hole to fit the referring pin of the indicator. They can be assembled with the handle either on the right or on the left and can be fitted to the machine by means of two M4 cylindrical-head screws (not included in the supply).



- **RB51:** black-oxide steel reduction sleeves (see table).
- **RB51-SST:** AISI 303 stainless steel reduction sleeves (see table).



BSA51		Main dimensions							Mounting hole	
Code	Description	B	L	d1	f	f1	l1	l2	d	g
CE.85905	BSA51-8	33	47	4.5	21	23.5	30.5	11	8	84
CE.85907	BSA51-10	33	47	4.5	21	23.5	30.5	11	10	83
CE.85909	BSA51-12	33	47	4.5	21	23.5	30.5	11	12	82
CE.85911	BSA51-14	33	47	4.5	21	23.5	30.5	11	14	81

RB51		Mounting hole
Code	Description	d H7
CE.85940	RB51-6	6
CE.85950	RB51-8	8
CE.85955	RB51-10	10
CE.85960	RB51-12	12

RB51-SST		Mounting hole
Code	Description	d H7
CE.95940	RB51-6-SST	6
CE.95950	RB51-8-SST	8
CE.95955	RB51-10-SST	10
CE.95960	RB51-12-SST	12

