

Datasheet

Features at a glance

- Programmable electronic position indicator with through hollow shaft $\varnothing 20$ mm or $\varnothing 25$ mm, for measuring and setting distance and angle adjustments in mechanical engineering.
- The compact design and simple mounting directly on the machine shaft enable numerous application possibilities.
- The electronics are built into an elegant and sturdy plastic housing.
- The hollow shaft in burnished steel features ball bearings.
- The display with a digit height of 10 mm offers excellent readability, also from a distance.
- All device parameters can be easily programmed via 3 function keys.
- The current measured value is stored even when the machine shaft is at a standstill.
- Powered by long battery lifetime, easy replacement from the front (without loss of measured value and parameters).
- Accessories available: shaft clamping flange, reducing bushes, hand crank or hand wheel.
- **EP-RS** with external power supply 10-25 VDC and two internal rechargeable batteries (back-up), serial output RS485 with Modbus RTU protocol for communication with remote units.



Mechanical characteristics

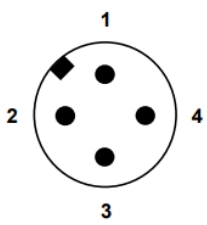
Dimensions Hollow shaft	EP20RS: $\varnothing 20$ mm H7, EP25RS: $\varnothing 25$ mm H7
Material Hollow shaft Housing	Burnished steel, has ball bearings Plastic, black or orange
Weight	approx. 350 g
Display	LCD; 6-digits; digit high 10 mm
Display range	-999999; +999999
Revolution	max. 1.000 rpm
Resolution	4.000 impulses/revolution
Operating temperature	+0°C to +50°C
Relative humidity	30% to +90% (non-condensing)
Protection class	IP54 (according to DIN 40050)
Electromagnetic compatibility	2004/108/EC
RoHS	2011/65/UE

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Electrical characteristics

Power supply	10...25 VDC max. 100 mA; 2 alkaline batteries 1.5 V type AA (back-up, for an operating period of 6 months without external power supply)
Battery lifetime	6 months
Function keys	3 for programming or function
Functions (freely programmable)	Reset/preset, absolute/incremental measuring value, mm/Inch conversion, angle display in degrees, 3 different zero points for dimensional correction by using different tools and an offset function for compensation of tool wear, setting of the value for each revolution of the hollow shaft, measuring direction, number of decimal points.
Serial port output electrical connection	RS485 Modbus RTU protocol 2 connector M12x1-male, 4-pin

Electrical connection Connector M12x1-male, 4-pin

	PIN	Signal	Function
	1	+10...25 VDC	positive power supply
	2	GND	negative power supply
	3	RS+	positive RS485 serial port
	4	RS-	negative RS485 serial port



Please pay attention: a wrong electrical connection could damage the device.

Ordering example

Type EP20RS - A - R - FL-B F20 - D12

EP20RS = with RS485 interface
 EP25RS = with RS485 interface

View/Mounting position

A =View A: for horizontal shaft
 B =View B: for vertical shaft

Housing colour

R = orange
 G = black

Shaft clamping flange (accessory optional)

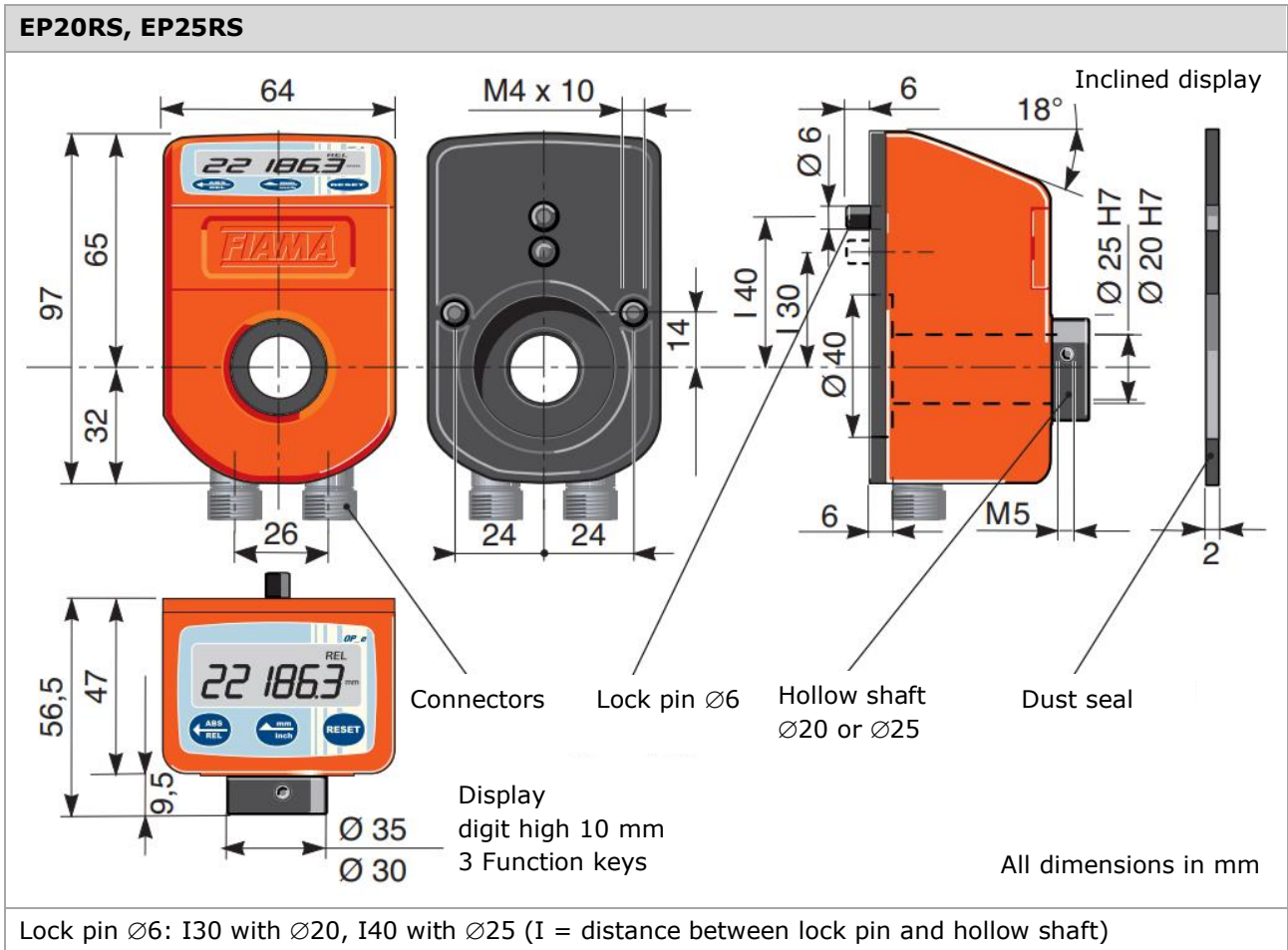
FL-B F20 = Shaft clamping flange Ø20 mm for EP20RS
 FL-B F25 = Shaft clamping flange Ø25 mm for EP25RS

Reducing bushes (accessory optional)

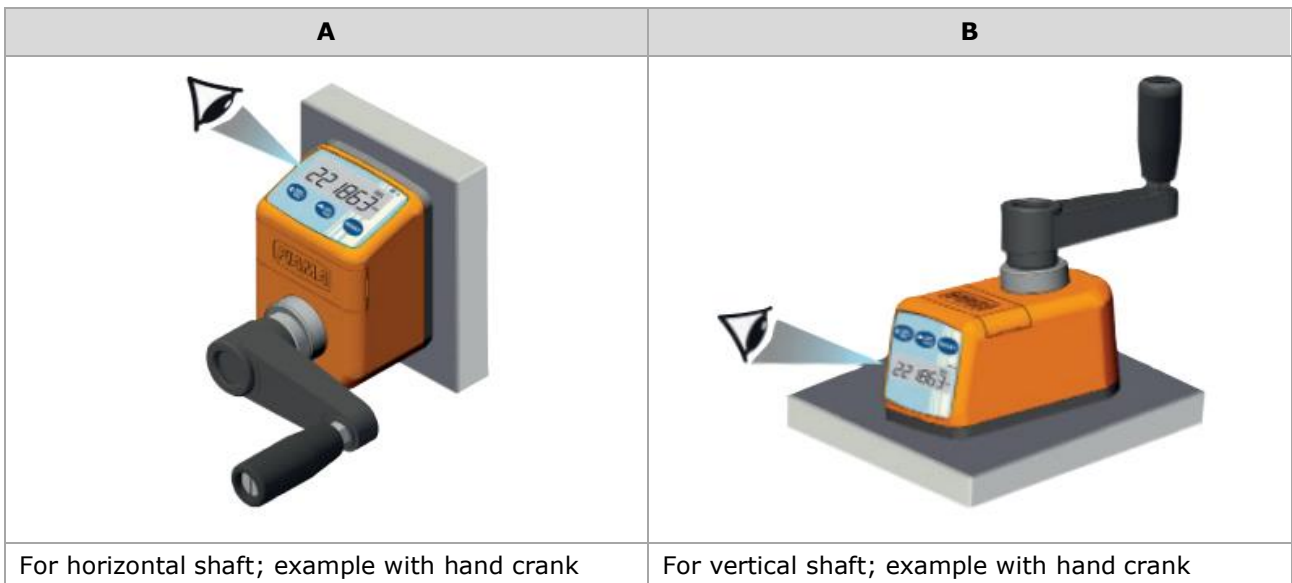
D = Reducing bushes Ø10; Ø12; Ø14; Ø15; Ø16; Ø17; Ø18 mm

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Dimensions Spindle position indicator

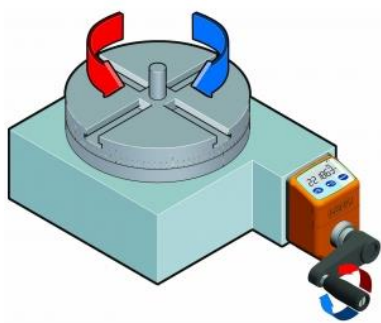
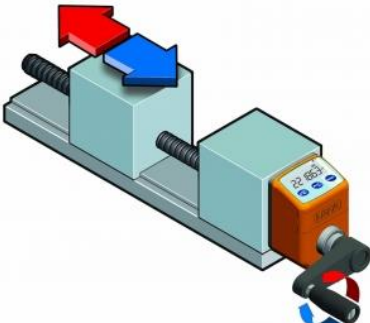
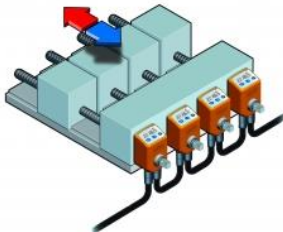


View/Mounting position

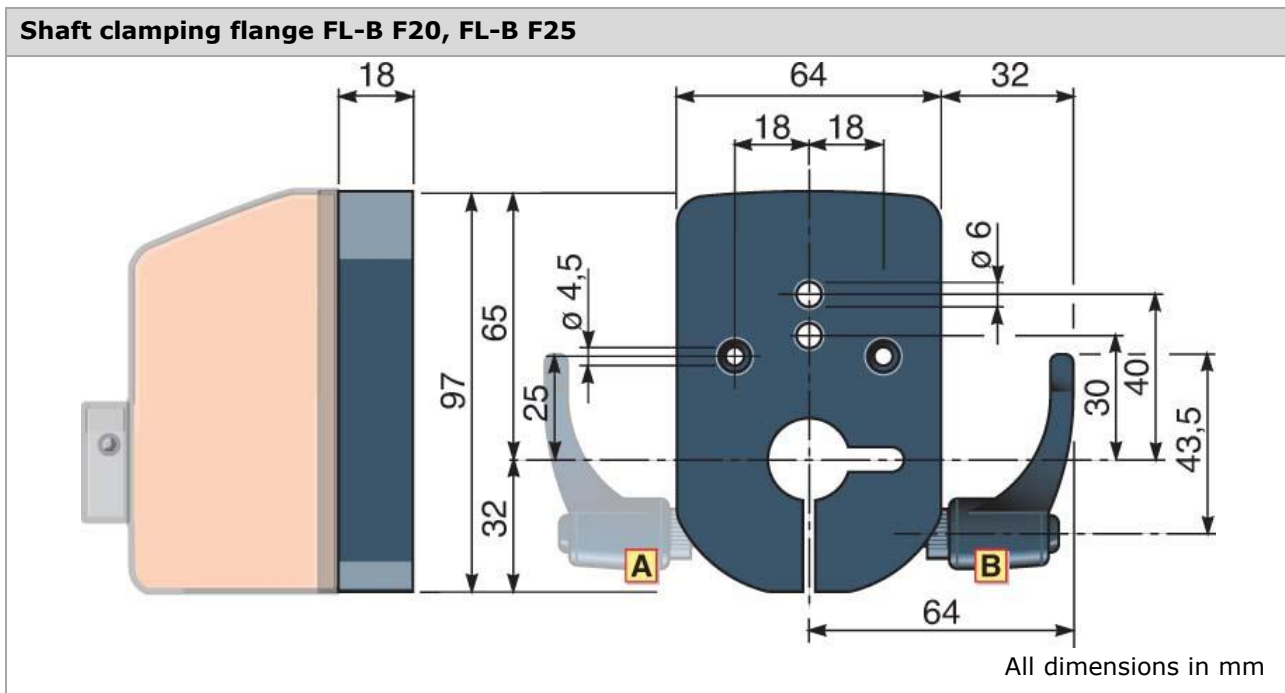


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Application examples

		
<p>For manuel angle adjustment</p>	<p>For manuel distance adjustment</p>	<p>Distance adjustment via serial port and remote control unit</p>

Dimensions Shaft clamping flange



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Dimensions Rotary knob

Rotary knob PM	
<p>Sticker on the front of the rotary knob in anodised aluminium indicating the rotary direction (+) increase or (-) decrease of the measuring value.</p>	

Dimensions Reducing bushes for shaft clamping flange


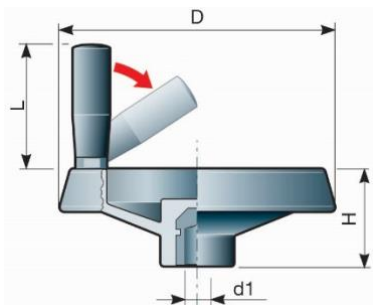
Reducing bushes for shaft clamping flange FLB-Ø14, FLB-Ø20	
Technopolymer reducing bushes for shaft clamping flange	
Type	Diameter D_i = inner diameter (mm)
FLB-14	8.1 10.1 12.1 5.5 -
FLB-20	14.1 15.1 16.1 17.1 18.1

Dimensions Reducing bushes


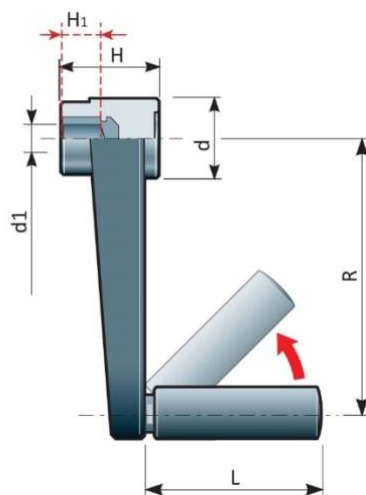
Reducing bushes D	
Technopolymer reducing bushes	
Type	Diameter D_i = inner diameter, D_e = outer diameter, hollow shaft (mm)
D14	6 8 10 12
D20	10 12 14 15 16 16 18

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Dimensions Hand wheel

Hand wheel V.R				
				
Thermoplastic hand wheel, steel bush				
Type	Dimensions (mm)			
	D	H	d1	L
V.R-80	80	34	∅10	56
V.R-130	130	50	∅12	76
V.R-160	160	56	∅14	86

Dimensions Hand crank

Hand crank V.M						
						
Thermoplastic hand wheel, steel bush						
Type	Dimensions (mm)					
	R	H	d	d1	L	H1
V.M-65	65	29	27	∅10	56	20
V.M-110	110	39	34	∅12	76	28
V.M-140	140	49	43	∅14	86	30

Without prior notice, the products may be subject to modifications that the Manufacturer reserves to introduce as deemed necessary for their improvement.

Manufacturer:  **FIAMA**
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