

Datasheet

- Precision rotating potentiometer with HALL-effect optional
- monoturn potentiometer without contact
- The reducer is provided with a clutch for the protection of the potentiometer
- Area of application: machines tool, automatic-, wood-marble-glassworking machinery,
- Shock-proof, self-extinguishing case, solvent-, gasoline-, oil-, grease-proof.
- IP-Rating: IP54



Mechanical Data

Dimension	
PR10 (Shaft)	Ø6 x 14 mm
PR20 (Hollow shaft)	Ø20 H7 mm
Material	
Housing	Self-extinguishing case (RAL7004/ grey)
Connection	
PR10, PR20, PR20HALL, PR20CAN PR20C, PR20HALL	Cable (2, 5, 10 meter) Connection, 4-pin
Wight	180 g
Linearity	±0,25%
Accuracy	±0,1 mm
Shaft Speed	400 min ⁻¹ 1000 min ⁻¹ for short time
Humidity	10% ... 90%
Operating Temperature	-10°C ... +70°C
IP-Rating	IP54

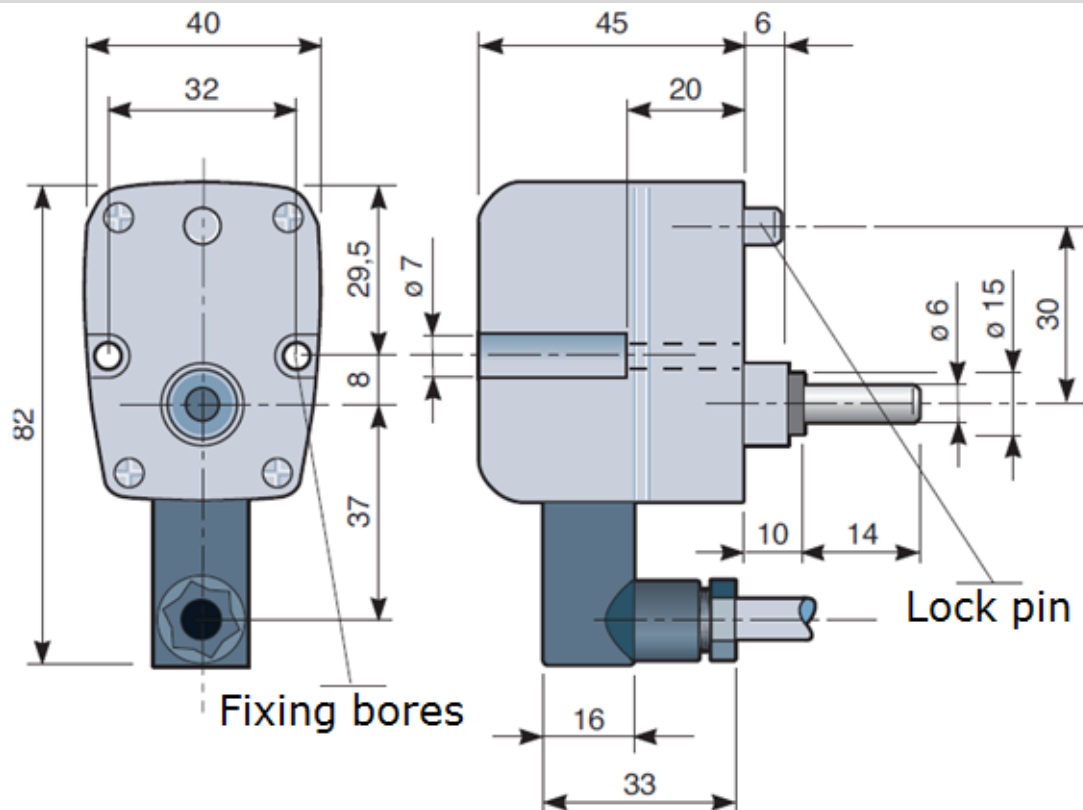
Electrical Data

Supply Voltage	24 VDC		
Interface	Analog		
Output	PR20-I	PR20-V	PR20HALL
	4 – 20 mA	0 – 10 V	4 – 20 mA od. 0 – 10 V
Resistance	10 kΩ		
Power Capacity			
340° / 1080°	1 W		
1800°	1,5 W		
3600°	10 W		
Certification	2004/108/CE		

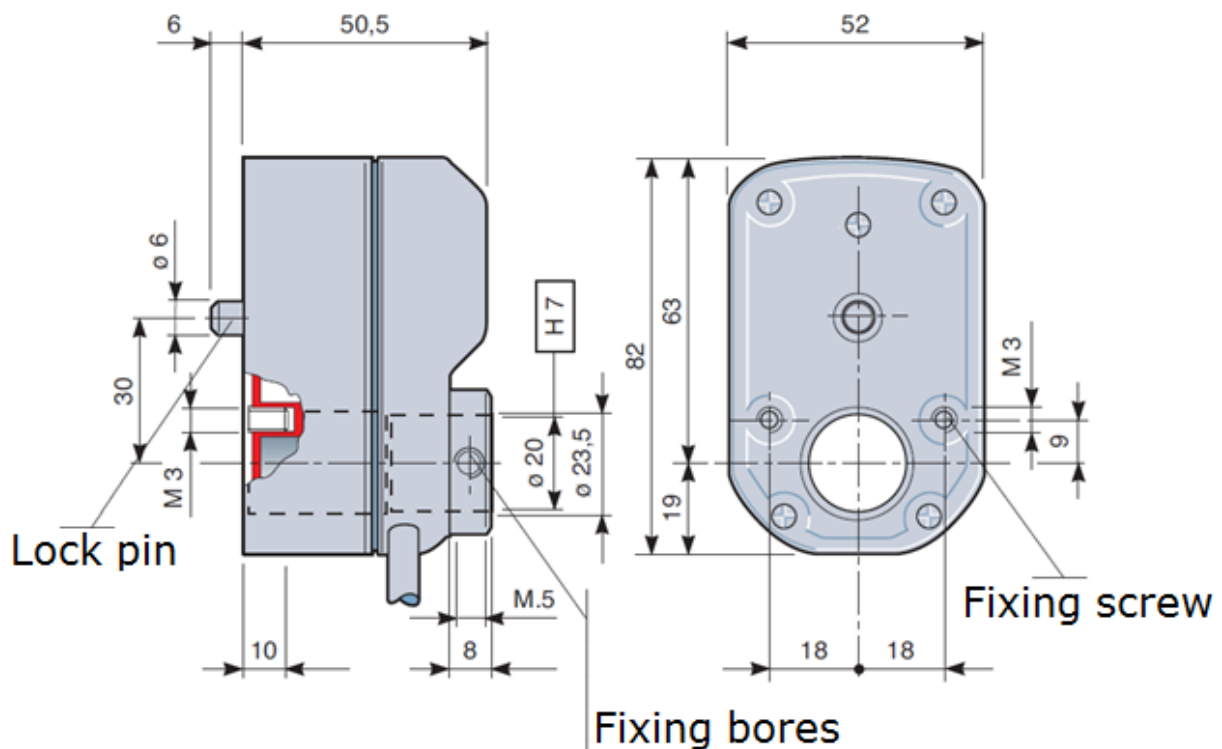
Datasheet

Dimensions

PR10



PR20



Datasheet

Gear Transmission

To optimize the accuracy and the complete stroke have to choose a combination of **Transmission** and the **Potentiometers Gear / Rotation**.

Additional its always better the **calculate value** is bigger than **real value**.

	multiplying	reducing
PR10	1/2; 1/1,25	1/1; 1,25/1; 1,33/1; 2,66/1
PR20	1/3; 1/2	1/1; 3,3/1; 10/1; 12/1; 18/1; 24/1; 30/1; 54/1; 72/1; 90/1

Potentiometers Gear	[Revolution]	1	3	5	10
Rotation		340° ±4°	1080° ±10°	1800° ±10°	3600° ±10°

Example 1.

The potentiometer combination has to make stroke of **230** Revolution

Potentiometers Gear: 10

Transmission: 24/1

24 x 10 = **240** Revolution

(es ist die Kombination mit dem nächst liegenden Ergebnis)

Example 2.

Choose a combination for screw with a thread of pitch 4 that has to make a shifting of 550mm:

550: 4 = **137,5** Revolution

Potentiometers Gear: 5

Transmission: 30/1

30 x 5 = **150** Revolution

(es ist die Kombination mit dem nächst liegenden Ergebnis)

Example 3, to calculate degrees.

For measure a rotation of **105°**:

We recommend a **Transmission** (1/3) for the best resolution.

Potentiometers Gear: 1

Rotation : 340

Transmission: 1/3

340:3=**113,5°**

(es ist die Kombination mit dem nächst liegenden Ergebnis)

Datasheet

Ordering Example

Type	PR20-I	-	10/1	-	2m	-	10	-
Cable-version								
PR10	= shaft							
PR20	= hollow shaft							
PR20-I	= hollow shaft/ 4 – 20 mA							
PR20-V	= hollow shaft/ 0 – 10 V							
PR20HALL	= HALL-Effect							
Connector-version								
PR20C	= hollow shaft							
PR20C-V	= hollow shaft/ 0 – 10 V							
PR20C-I	= hollow shaft/ 4 – 20 mA							
Gear Ratio								
See table								
Cable length (only cable-version)								
2m	= 2 m							
5m	= 5 m							
10m	= 10 m							
Potentiometer Transmission [Revolution]								
1	= 340°							
3	= 1080°							
5	= 1800°							
10	= 3600°							
Mating connector (only connector-version)								
C1	= Connector Output straight (female)							
C2	= Connector Output 90° (female)							

Hersteller:

