

Force measuring roller RMR3-series

For stranding machines with high revolution

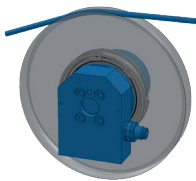
Precise measurement with centrifugal and coriolis force compensation

Nominal forces for many applications

Accuracy class +/- 0.3%

Large measuring range up to 100:1

Mounting type



FORCE MEASURING ROLLER

The RMR3 series **force measuring rollers** are used to measure wire tension in cage and tube stranding systems.

As with all HAEHNE sensors for wire tension measurement, the internal double bending beam system impresses **with its high accuracy, high linearity and high rigidity.**

Thanks to its special design, the effects of **centrifugal and Coriolis forces are fully compensated.**

This ensures precise measurement with low wire tension and a small wrap angle, even in rotating applications.

Thanks to **active overload protection** over the entire width of the sensor makes the RMR3 series particularly suitable for harsh applications, e.g. in steel wire stranding process environments.

The **blue dot** indicates the positive measuring direction.

OPTIONS

Angled plug connection¹

S1: M12 (metal)

S2: M12 (molded)

Straight plug connection

N1: M12 (metal)

N2: M12 (molded)

Plug connection with cable

W5: 5m cable

W10: 10m cable

W20: 20m cable

T: Fixed connection

¹ Dimensions see connection T1

Design A: Single bearing arrangement (with 1 grooved ball bearing 61812)

Design B: Double bearing arrangement (with 2 pcs. deep groove ball bearing 61812)

Plug position on the sensor:

R = plug on right (standard)

L = plug on left (option)

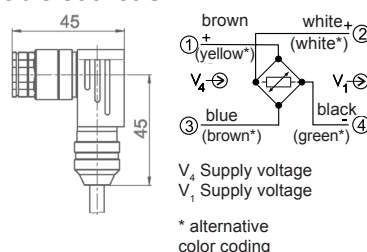
Measuring direction (blue dot):

1 = Blue dot right (standard)

2 = Blue dot left (option)

STANDARD CONNECTION

Cable socket S1



ORDER EXAMPLE

RMR3A-100-S1W0-R1

Type

Axis \varnothing

Nominal force

Plug outlet/
direction of measurement

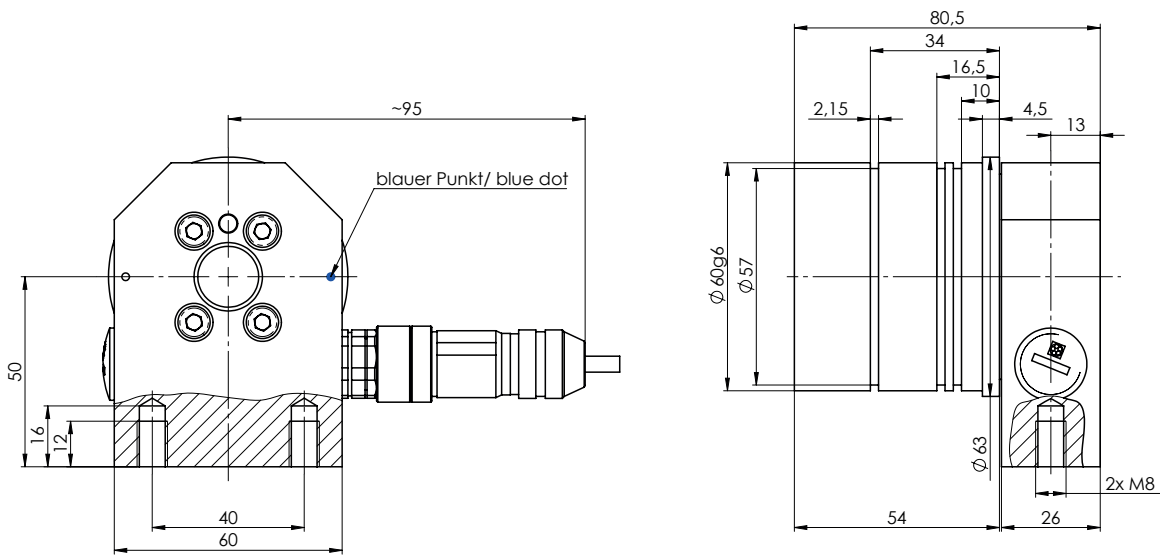
SCOPE OF DELIVERY

Force sensor with cable socket

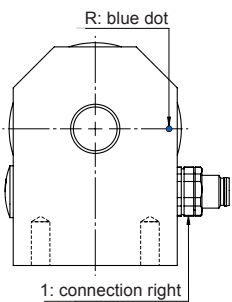
Standard connection S1W0:
Self-assembly cable socket (metal) 90° angled without cable

Additionally available

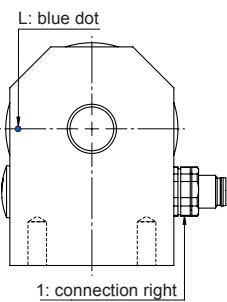
- Connection cable (pre-assembled)
- Measuring amplifier



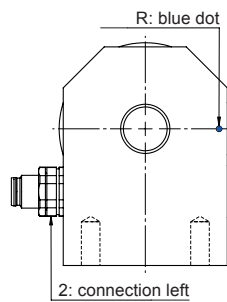
RMR3-SERIES: MOUNTING OPTIONS



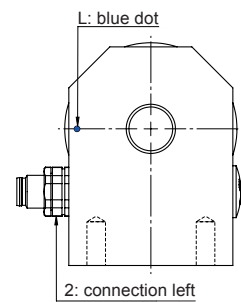
Standard R1
measuring direction right
+ connection right



Option L1
measuring direction left
+ connection right



Option R2
measuring direction right
+ connection left



Option L2
measuring direction left
+ connection left

TECHNICAL DATA	VALUES (%) BASED ON NOMINAL FORCE
Nominal forces (N)	20; 50; 100; 200; 500; 1000
Max. operating force	160%
Absolute max. force	1000%
Nominal rating	1,5 mV/V
Accuracy	0,3%
Reproducibility	0,05%
Measuring range	1:100
Nominal temperature range	+10...+60°C
Operating temperature range	-10...+70°C
Nominal resistance	1000 Ohm
Max. Supply voltage	10 VDC
Protection class	IP 42
Material	stainless steel



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