

NOVOPERM

Direction Sensor RS 20

for cement mixer trucks

The RS20 is a direction sensing device, which is especially designed to observe the movement of the mixer drum of cement trucks.

When moving a magnet along the sensor surface, the integrated microprocessor determines the current moving direction and provides the appropriate signal information by using two relay outputs.

Three LED-indicators with different colours indicate the sensor functions and offer simplest installation and maintenance work for the user.

The device is fitted in a very tough aluminium casing. It is therefore perfectly shielded against damages, electromagnetic and other environmental influences.

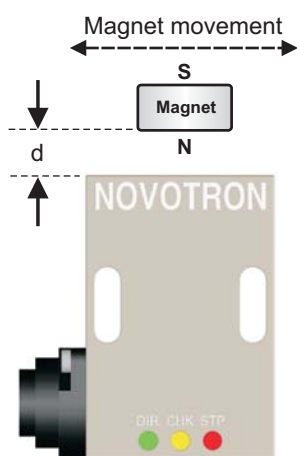


Function

One side of the direction sensor RS20 is marked by an arrow and letters "A" and "B". By moving a permanent magnet along the arrow, the RS20 will detect the magnet moving direction. The output "DIR" will switch according to the moving direction and the green LED "DIR" (=direction) will indicate the current output state.

When no movement has been detected for more than 60 seconds, the output "STP" will switch, indicated by the red LED "STP" (=stop).

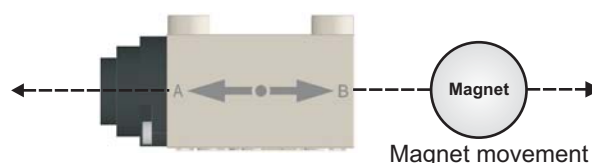
If the magnet passes the sensor close enough to generate a safe signal amplitude, the yellow LED "CHK" (=check) will be switched on for one second. This provides an outstanding and helpful feature to ensure safe sensor operation.



Maximum sensing distance for safe operation:

d = 35mm with magnet type R III (part-no. AM-5003)
d = 50mm with magnet type E10 (part-no. AM-5020)

Make sure, that the magnet's center moves aligned with the arrow marking on one side of the RS20, and that the LED "CHK" switches ON, when the magnet passes!



Additional features

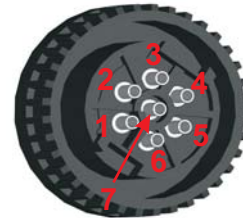
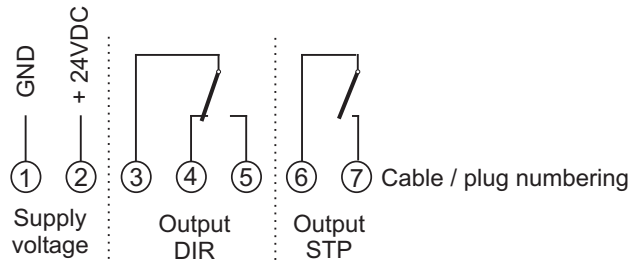
Reliable detection	Microprocessor controlled signal detection in combination with a sophisticated detection algorithm provides reliable sensor functions.
Protection circuitry	Integrated protective circuits prevent the direction sensor RS20 from being disturbed or damaged by electromagnetic interferences and ensure trouble-free operation. The sensor provides a protection to avoid damages caused by mixed-up supply lines.
Electrical connection	Rugged connection plug for electrical connection with solder terminals. Ready-to-use cables with customer-specific cable length are available.
Mounting	Easy installation and adjustment by using elongated mounting holes.
Compatibility	Mechanically and electrically fully compatible to the former RS10 direction sensor. A stainless steel mounting bracket is available for easiest replacement.

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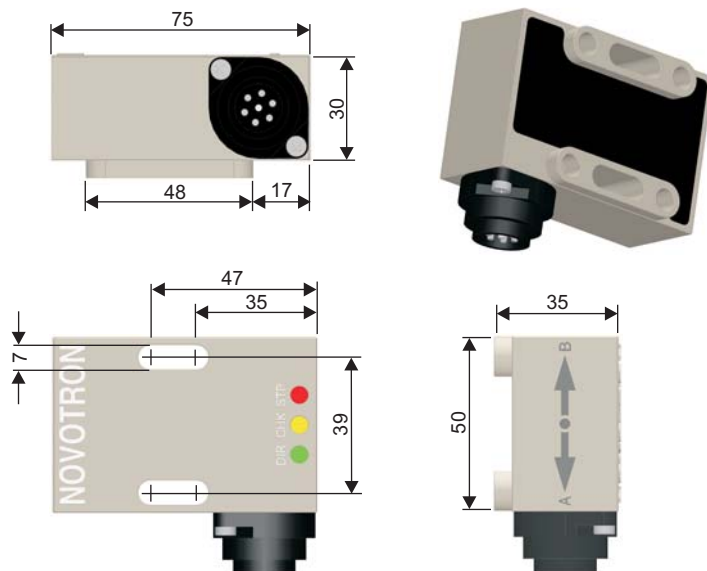
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Electrical wiring



Connector plug
inside view

Dimensions



Compatibility

A mounting bracket is available to provide easy mounting of the RS20 and full compatibility with the former RS10 sensor. Identical mounting holes enable the user to mount the RS20 in both directions.



Technical specifications

Supply voltage	24VDC (+/-20%)
Power consumption	appr. 600mW
Output signals	2 potential-free relay contacts for DIR- and STP-outputs (max. load 24VDC/1A)
Operating temperature	-30°C ... +65°C
Type of protection	IP 67

Ordering information

Part number	Item
AM-7035	Direction sensor RS20
AM-7039	Mounting bracket
AM-7040	Connection cable 1,0m (ready-to-use assembled with connection plug AM-7049)
AM-7043	Connection cable 5,0m (ready-to-use assembled with connection plug AM-7049)
AM-7046	Connection cable 10,0m (ready-to-use assembled with connection plug AM-7049)
AM-7049	Connection plug for RS20 (without cable / for self assembling)
AM-5003	Magnet type R III