Assembly Instructions

Precautionary Measures
- Do not let the measuring wire rewind without control (snap back).
- Danger of injury from whiplash effect of the wire with assembly bolts/ clips, destruction of wire and/or of sensor.
- Do not pull the measuring wire over range. Damage to or destruction of the sensor is possible.
- Do not damage the measuring wire.
- Do not oil or grease the measuring wire.
- Do not bend the measuring wire.
- Do not pull the measuring wire at an angle.
- Do not allow to loop the measuring wire around objects.
- Do not fix the measuring wire to the target when wound up.
- Do not loop the measuring wire around parts of the body.

Sensor Assembly
Mount the sensor through mounting grooves for nut M4 DIN 934 or bolt M4 DIN 931 and/or through mounting clips MT60-WDS. The sensor does not have to be oriented in a special way. Choose the installation position so that damage and soiling of the measuring wire is avoided.

Proper Environment
- Protection class of sensor: IP 65
- Operating temperature: -20 to +80 °C (-4 to +176 °F)
- Storage temperature: -40 to +80 °C (-40 to +176 °F)
- Humidity: 5 - 95 % (non-condensing)
- Ambient pressure: atmospheric pressure
- Vibration: according to IEC 68-2-6
- Mechanical shock: according to IEC 68-2-27

1) Models with male plug connection only with gasketed female plug
Wire Guide and Fastening
If the measuring wire has to be extracted from the sensor to guide the wire resp. to fix it to the target
- the sensor may not be held by another person
- the surroundings of the sensor have to be protected against snapping of the measuring wire
Fix the measuring wire to the target using a wiring clip. Fed the measuring wire perpendicularly from the sensor housing. A misalignment is only permissible up to 3 degrees.

If you drag of the measuring wire on the inlet hole or other objects, this leads for damaging and/or snapping of the measuring wire.
If the measuring wire has to be extracted from the sensor to guide the wire leads for damaging and/or snapping of the measuring wire.

A pre-assembled connecting cable PC3/8 is available as an accessory.

Tip for the user-side assembly:
- Maximum cable diameter 8 mm / 0.3 inch
- Recommended conductor cross-section 0.14 mm² (up to 9 m/30 ft cable length)
- Earth the screen on electronics side.
- Use a screened cable.

Connections:
Connection pin assignment WDS-... - Pxx - SR - U/I
Pin - Nr. color DIN 47 100 Pin

1) Pin 5 - 8 are not connected.

View of solder pin side 8 pole female cable connector

Dimensions of wire fastening and misalignment

Dimensional wire fastening and misalignment

Power Supply and Display/Output Device

Electrical connection
- CR - integrated cable
- SR - connector
- P - potentiometer

Output
- voltage
- current

Max. 3 ° ±3 ° tolerancy
Wire outlet 0 °

Note the pin assignment for draw-wire displacement sensors with encoder output.
The sensor contains an additional supplement for detailed informa-

Pin - Nr.
1 supply +
2 ground
3 signal ---
4 ground (signal) ---

Note for the user-side assembly of a cable:
- Use a screened cable.
- Earth the screen on electronics side.
- Recommended conductor cross-section 0.14 mm² (up to 9 m/30 ft cable length).

Measuring range

100 %

Type designation: WDS-xxx, WPS-xxx
The following fundamental health and safety requirements in accordance with the above-named directive are applied and maintained:
- No. 1.1.2. Principles of safety integration
- No. 1.2.5. Marking of machinery
- No. 1.4.7. Instructions

Furthermore, the compliance with the following EC Directives and stand-ards is explained, including the valid changes at the time of this declara-
tion:
- EN ISO 13857 Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs
- DIN EN 61326-1: 2013
- DIN EN 61326-2-3: 2013
- EN 61326-2-1: 2013
- EN 61326-2-2: 2013

Moreover, we declare that the relevant technical documentation for this partly completed machinery has been created in accordance with part B of Annex VII, and that we shall be obligated to deliver these upon the request of the market surveillance authorities.

The described partly completed machinery is intended for installation in a machine that complies with the provision of the EC Machinery Directive

Moreover, we declare that the relevant technical documentation for this partly completed machinery has been created in accordance with part B of the above-named directive are applied and maintained:
- No. 1.1.2. Principles of safety integration
- No. 1.2.5. Marking of machinery
- No. 1.4.7. Instructions

Furthermore, the compliance with the following EC Directives and stand-
ards is explained, including the valid changes at the time of this declara-
tion:
- EN ISO 13857 Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs
- DIN EN 61326-1: 2013
- DIN EN 61326-2-3: 2013
- EN 61326-2-1: 2013
- EN 61326-2-2: 2013
- EN 61326-2-6: 2013

Declaration of incorporation
Declaration of incorporation according to the EC Machinery Directive 2006/42/EC, Annex II B

Manufactured and authorized representative for the compilation of the relevant technical documents

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