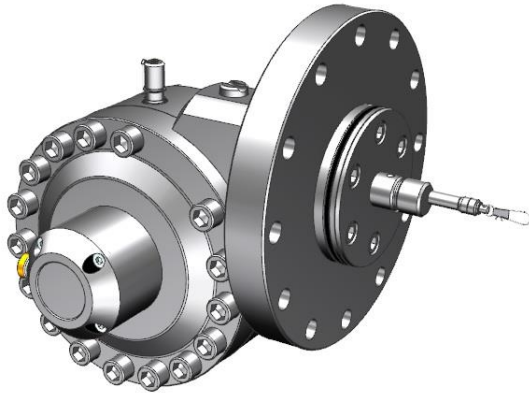


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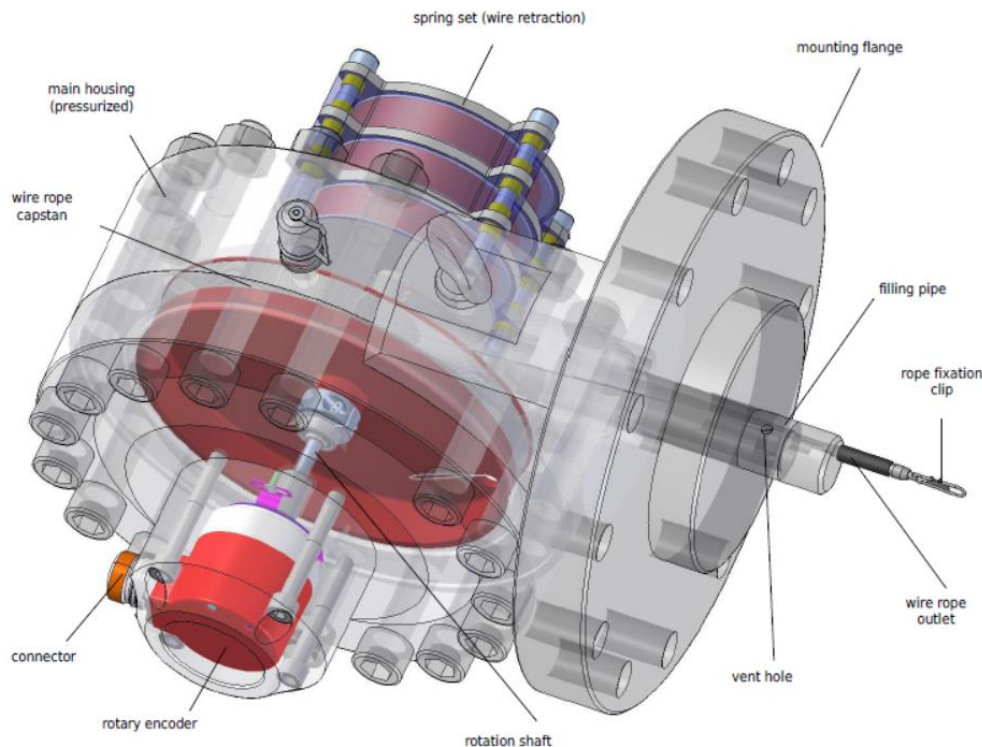
Absolute Linear Measuring Sensor



The ABSOTEK sensor series are cable sensors designed for use in combination with hydraulic cylinders and to measure the position of the piston in the cylinder. Specially designed for long stroke cylinders, the sensor body can be pressurized and is directly clamped on the cylinder

By sending the signals to the control command, it will be possible to control the hydraulic cylinders, program specific movements or synchronize the movements of several hydraulic cylinders.

Due to its small footprint, reduced assembly time and possible customization, this sensor technology provides a cost effective and flexible solution for a wide range of applications.



A constant tension from the spring coils the measuring cable precisely on a cable pulley, so that its linear motion is converted into rotation. The sensor element (rotary encoder) provides the required output signal. Due to its mechanical construction and good dynamic response, it is possible to measure a high displacement speed and rapid acceleration of the piston in its cylinder. Its high quality allows its integration for applications in harsh environment.

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Absolute Linear Measuring Sensor

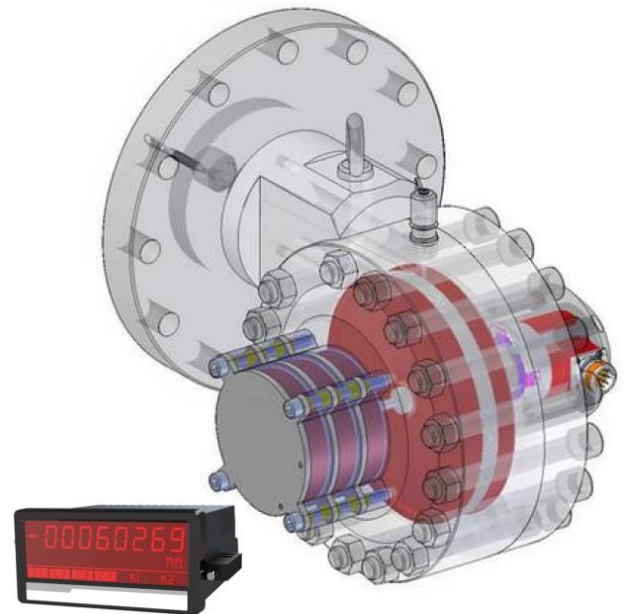


Applications

- Cylinders for dams*
- Lock gates*
- Movable bridge jacks*
- Wave compensation cylinders*
- Synchronization between several cylinders*
- Acceleration and speed control of cylinders*

Technical datas

| | |
|----------------------|--|
| Range measurement | 10m, 15m, more upon request |
| Temperature range | -20°C...+70°C |
| Pulley circumference | 568,9 mm |
| Linearity | ± 0,05% |
| Pressure control | Minimess 1620 |
| Fluid | All type of fluid, no gas |
| Working pressure | 300 bar |
| Testing pressure | 400 bar |
| Velocity | 2 m/s max. |
| Weight | 61 kg |
| Cable tension | 10 m : début 10 Nfin 29 N 15 m : début 13 N fin 37 N |
| Encoder type | Bride Ø 58 mm pour couplage Ø 63 mm fixation vis Arbre creux Ø 15 mm |
| Cable connector | Adjustable by step of 90° |
| Construction grade | Grade : 42CrMo4 |
| Cable grade | Grade : X5CrNi18-10 (Inox) |

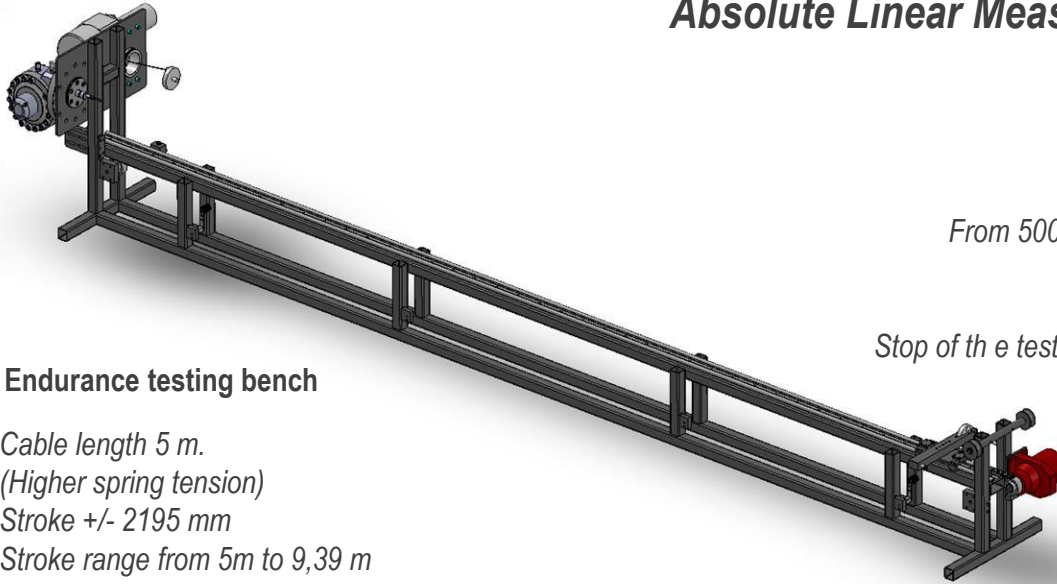


| | |
|---------------|---|
| Output signal | CANopen, SSI, Profibus-DP EtherCAT, Profinet |
| Connection | Sortie câble ou connecteur |
| Power | 10...30 VDC |
| Protection | IP65, IP67 en option |
| Options | ATEX, IECEx |



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Absolute Linear Measuring Sensor



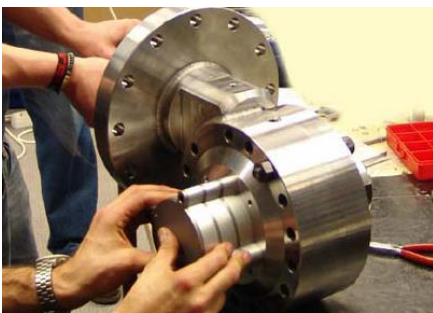
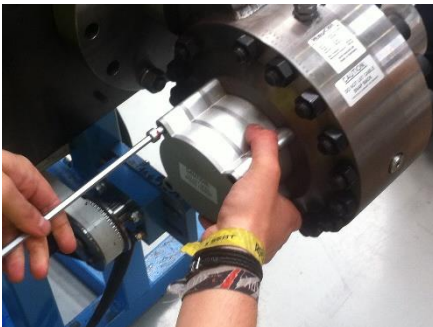
Endurance testing bench

Cable length 5 m.
 (Higher spring tension)
 Stroke +/- 2195 mm
 Stroke range from 5m to 9,39 m

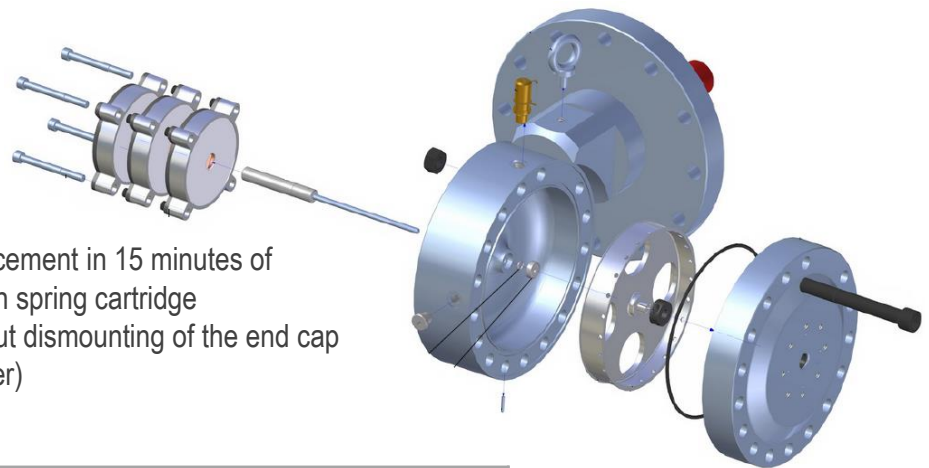
Endurance test
 From 0 to 500 000 cycles
 Velocity test de 2 m/s
 From 500 000 cycles to 1 000 000 cycles
 Velocity test 1,3 m/s

Stop of the tests after 1 012 088 cycles without any issue

Easy dismantling and maintenance



Independent spring cartridge



Replacement in 15 minutes of tension spring cartridge (without dismantling of the end cap cylinder)

Replacement in 15 minutes of the electrical encorder (without dismantling of the end cap cylinder))

Recommended maintenance for replacement of voltage cartridges

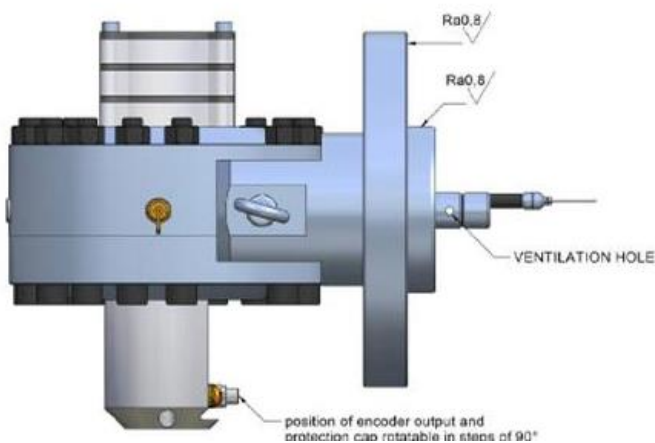
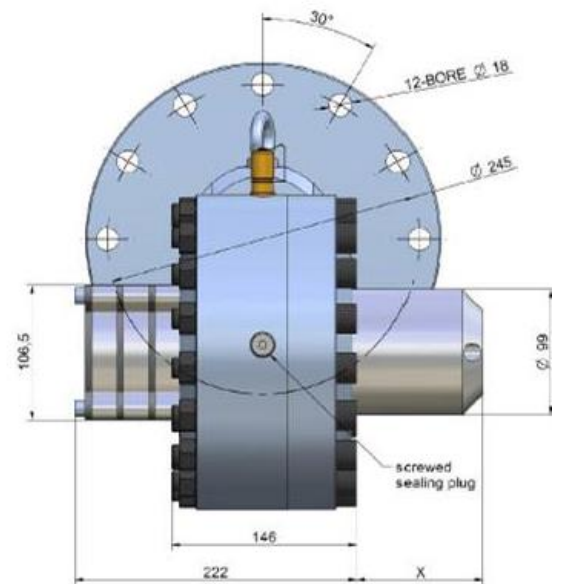
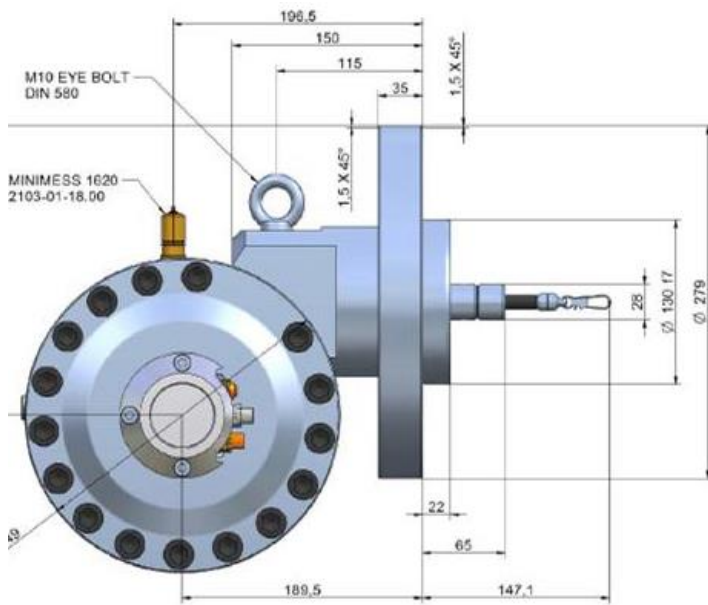
| | |
|-----------------------------|----------|
| 1 stroke per day | 10 years |
| 10 strokes per day | 6 years |
| 25 strokes per day | 5 years |
| More than 50 stroke per day | 3 years |

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 Tel USA : + 1 / 586 566 4725 : fvandenbulke@doucehydro.com
www.doucehydro.com

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encoder cap:
 for SSI Encoder: X = 71
 for Profibus Encoder: X = 90
 for EtherCAT encoder: X = 95
 for CANopen encoder: X = 96
 for DeviceNET encoder: X = 10



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