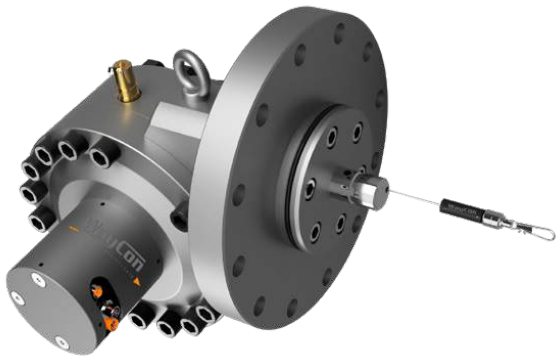
DWS300 - Pressure-Sealed Position Transducer

Output Signal: 4...20mA / SSI / CANopen
Pressure-Sealed: 300 Bar (30 MPa)
Measurement Range: 10 m / 15 m
Linearity: ±0.05 %
Protection Class: IP67
Unpressurised Encoder

DWS300

Pressure-Sealed
For Hydraulic Cylinder Applications



SPECIFICATIONS

Measurement Range ..... 10 m / 15 m
Output Signal ..... 4...20mA, SSI, CANopen
Linearity ..... ±0.05 %
Operating Pressure ..... 300 bar (30 MPa)
Testing Pressure ..... 400 bar (40 MPa)
Operating Temperature ..... -20...+70 °C
Piston Travel Speed ..... max. 2 m/s (in air)
Protection Class IP67
Connector ..... M12 / M23, radial
Wire Sag (calculated) ..... <30 mm
Weight ..... 61 kg

Key Features

- Measurement range up to 15 m
- Pressure-sealed up to 300 bar
- Output signals: 4...20 mA, SSI, CANopen
- Alternative draw wire mechanics for encoder installation
- Unpressurised encoder

Content

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Technical Data Encoder 2
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DWS300 - Pressure-Sealed Position Transducer

TECHNICAL DATA MECHANICS

Measurement range	[m]	10 / 15
Linearity	[%]	±0.05 (depending on the used encoder)
Sheave circumference	[mm]	568.9
Operating temperature	[°C]	-20...+70
Hydraulic fluid		only non-hazardous fluids (non-flammable, non-toxic), no gaseous media
Operating pressure	[bar]	300 (30 MPa)
Testing pressure	[bar]	400 (40 MPa)
Pressure port		Minimess 1620
Piston travel speed	[m/s]	max. 2 (in air) 1)
Rope tension	[N]	start of measurement range: 10...11.5 (13...16.5) end of measurement range: 29...31.5 (37...43)
Wire sag (calculated)	[mm]	<30
Connector orientation		adjustable in 90° steps
Weight	[kg]	61
Housing 2)		42CRMo4 (1.7228)
Draw wire		stainless steel 1.4301, Ø 0.69 mm
Encoder requirements	[mm]	flange with stator coupling Ø 58 pitch circle diameter for fixing screws 63 hollow shaft Ø 15

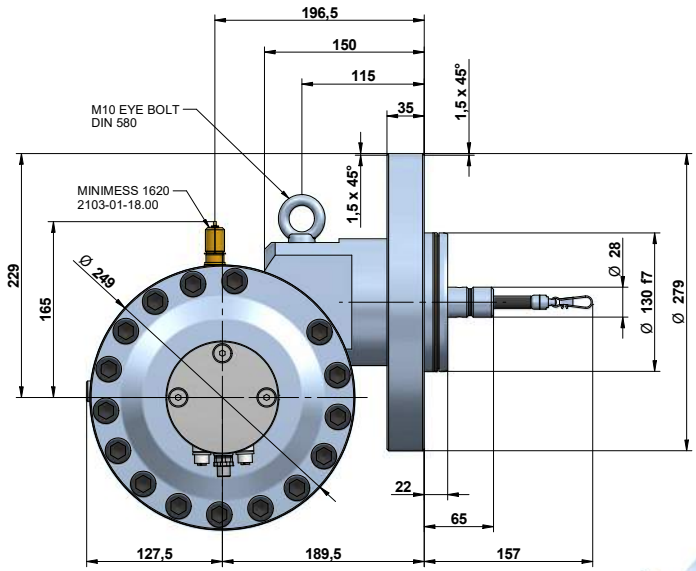
1) identified laboratory value without hydraulic fluid
2) In case of outdoor use we recommend to varnish the housing additionally.
Attention: Do not varnish moving parts (encoder shaft, coupling...)!

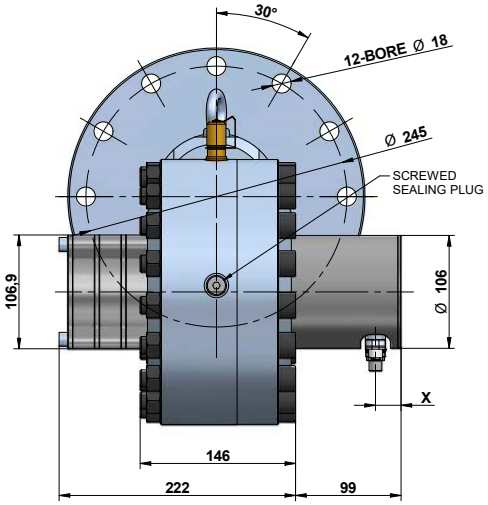
TECHNICAL DATA ENCODER

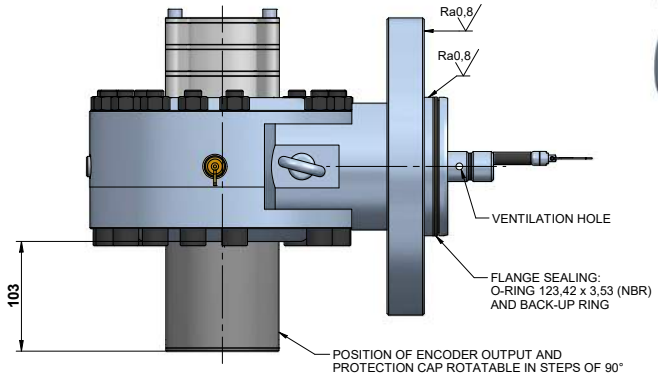
Output signal	**4...20 mA**	**SSI**	**CANopen**
Encoder type	M36-SC-K-10- 420A-SR12-IP67	8.5883.6624.G322	8.5888.6622.2123
Linearity [%]	±0.05 (independent of the measurement range)		
Resolution scalable (via Software)	no	.	.
Resolution standard [Pulses/mm] / [Bit]	.	12	.
Sensor element		Multiturn-Absolute-Encoder with optical disc	
Connection	connector M12, radial, 5 pins	connector M23, radial, 12 pins	2 x connector M12, radial
Power supply [VDC]	10...30, reverse polarity protection of the power supply		
Current consumption (no load, 24 VDC) [mA]	max. 30	max. 50	max. 100
Protection class		IP67	
Humidity		max. 90 % relative, no condensation	
Temperature [°C]		-40...+90	
Special cables needed	no		
Links to encoder files	data sheet, manual	data sheet	data sheet, manual, EDS file

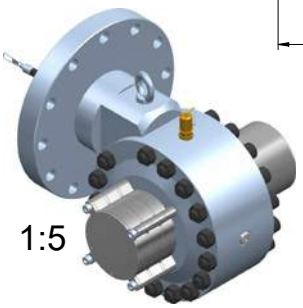
TECHNICAL DRAWING

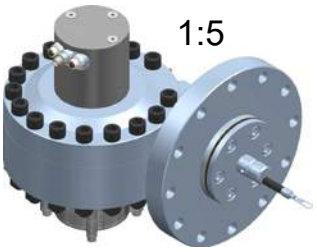
Flange type F22 (piston sealing)





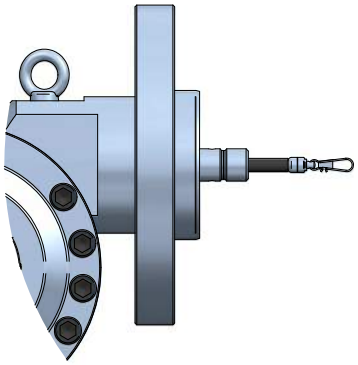






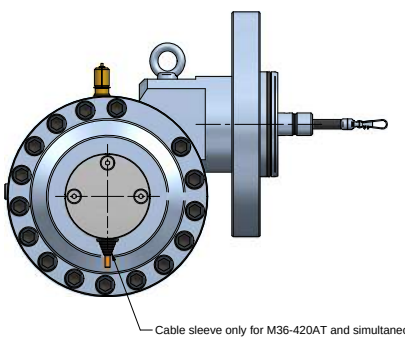
Signal	X [mm]
4...20 mA	36
SSI	51,8
CANopen	26,5

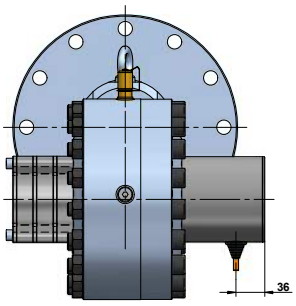
Flange type F12 (rod sealing)



F12/F22 with new protection cap.
Old protection cap (F1/F2 on request).

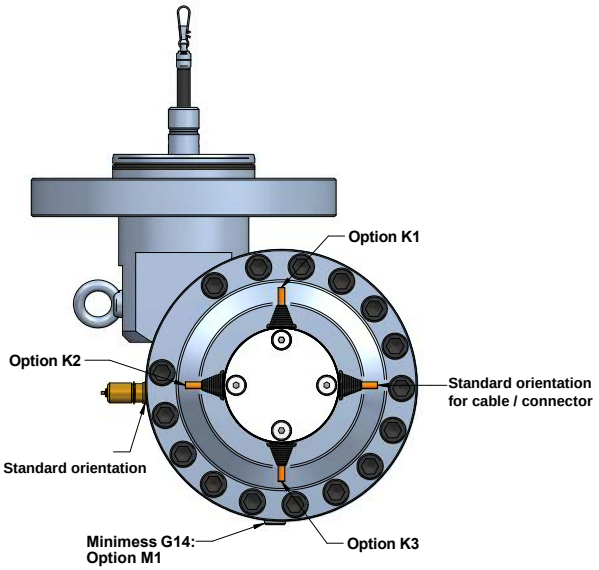
Cable sleeve only for analoge output signal 4...20 mA with the combination of the cable K5P



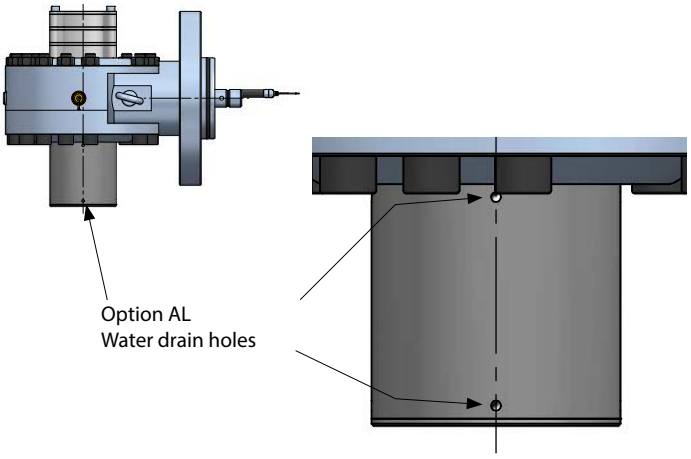


TECHNICAL DRAWING

Option K1/K2/K3/M1: Orientation cable/connector and Minimess



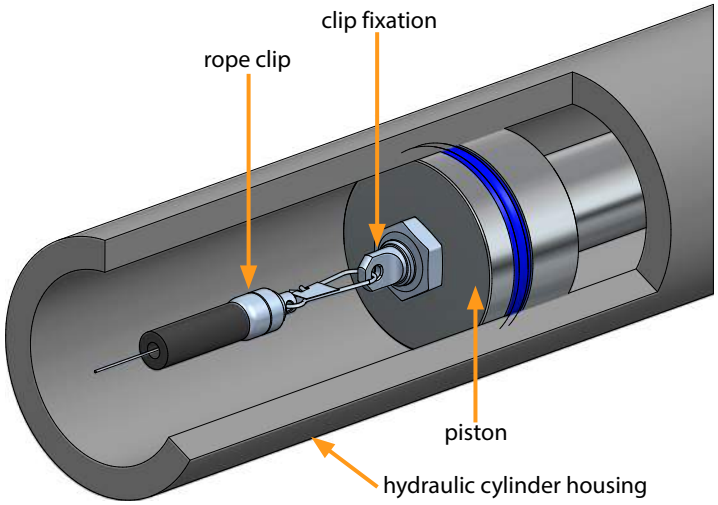
Option AL*: 8x Water drain holes (Ø 4.3 mm) AL*



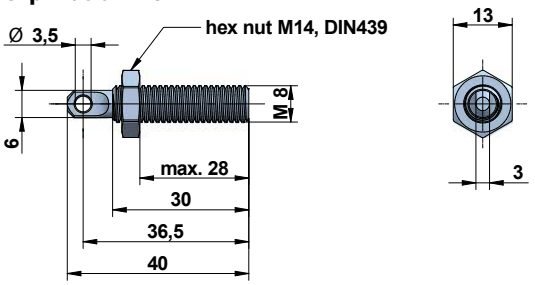
*In delivery included: 8 plugs

ACCESSORIES

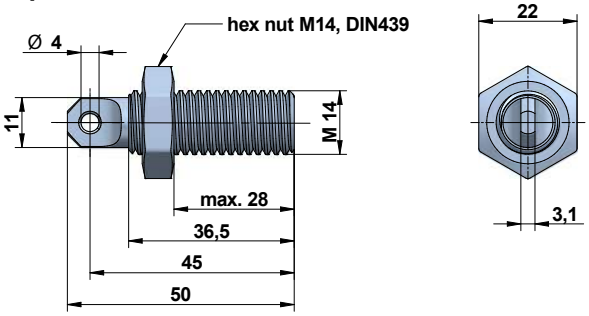
Piston wire fixation



Clipfixation M8



Clipfixation M14



ORDER CODE

DWS300 – □ – □ – □ – □

Measurement Range [m]	
10 / 15	

Sensor without encoder	
Draw wire mechanics [1]	H15/63
Sensor with encoder	
4...20 mA	M36-420AT
SSI	SSI
CANopen	CAN

	Option
K1	cable/connector orientation top
K2	cable/connector orientation left
K3	cable/connector orientation bottom
M1	Minimess orientation bottom
AL	drain wholes

	Flange type
F12	rod sealing type
F22	piston sealing type

[1] Encoder requirements:
- flange with stator coupling Ø 58 mm
- pitch circle diameter fixing screws Ø 63 mm
- hollow shaft Ø 15 mm

ACCESSORIES

Clipfixation M8	for fastening the measuring wire to the piston
Clipfixation M14	for fastening the measuring wire to the piston
AL-Plug	Plugs (10 pcs) for the water drain wholes

Cable with mating connector M12 (female), only for 4...20 mA	
P5M-S-M12	5 poles, shielded , 5 m
P10M-S-M12	5 poles, shielded , 10 m