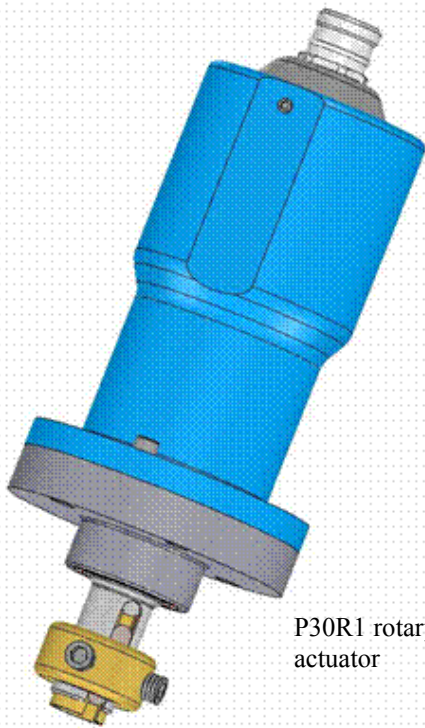




ODEN[®] P30 ACTUATORS

A FAMILY OF ELECTRIC ACTUATORS



P30R1 rotary actuator

*** Oden High Speed Rotary Actuator delivering 30 Nm torque**

or

*** Oden High Speed Linear Actuator delivering 12 kN force**

*** Programmable by OVP (Oden[®] Valve Program)**

*** 24 V brushless DC motor**

*** All electronics in the IP68 sealed housing**

*** 4 – 20 mA signal or digital**

*** Low weight – only 3 kg and 7 kg respectively**

*** Easy and quick installation**

*** Automatic calibration**

Oden[®] is the name of the modular system of compact electric actuators for both rotary and linear valves.

P30R1 rotary actuator with max. torque 30 Nm and P30L1 linear actuator with max. force 12 kN are members in this Oden[®] system.

The design is Swedish as well as the manufacturing. The actuators, with the very compact designs and low weight, are based on the unique, patented Oden Gear Systems™ and a brushless electric motor with electronic control.

No back-up accumulators or sensitive electromechanical components as limit switches or potentiometers are used.

Torque, velocity and other various parameters are set prior to the delivery but can easily be modified whenever you like by

the OVP software (Oden[®] Valve Program).

The mechanical installation to the valve is easy. Can be installed in all directions. Oden[®] Control AB has adapters for the most common valves.

The electrical installation requires only one shielded cable for the power 24 V DC, for the analog (mA) or digital control signal and for the position (return) signal.

The automatic calibration ascertain a closed tight valve at the desired signal level, mostly at 4 mA, and the accuracy is high.

The actuators are sealed according to IP 68

By using Oden[®] Electric Actuators you are getting the most reliable and accurate actuator in the world with exceptionally short pay-off time.

	Standard	Options
Sealing of housing	IP 68	
Surrounding temp. C⁰	- 25 ⁰ - +60 ⁰	-40 ⁰ - +90 ⁰
Installation	All directions	
Control intermit- tence	100% (at average torque)	
Protection	All electronics are thermal protected	
Electric motor	Brushless motor	
Electronics	Microprocessor logics, surface mounted, at one board, power circuits at another board	
CE-certificate	Compliant with EMCD Immunity EN 50 082 (heavy industrial environment) Emission EN 50 081 (heavy industrial environment)	

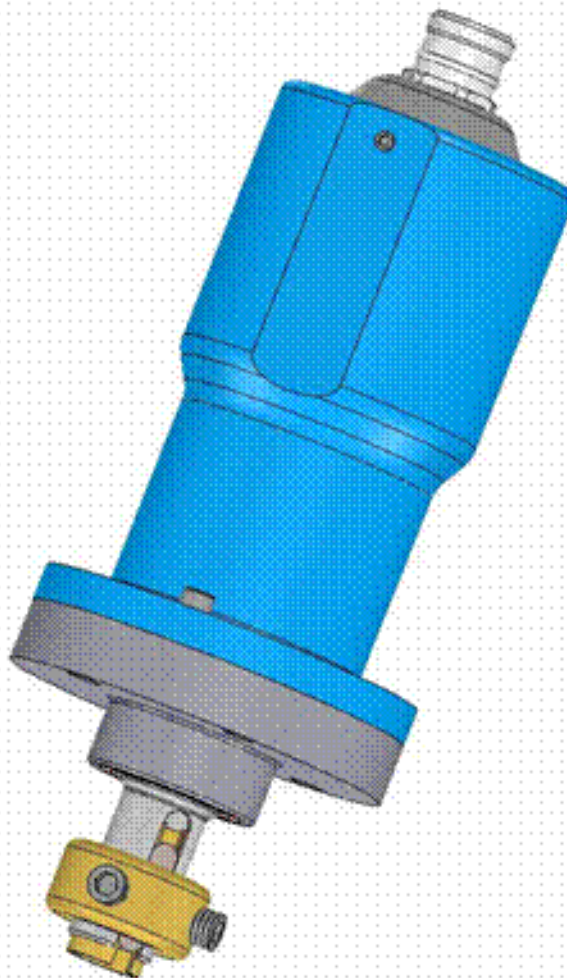
Cable	Shielded, conductors 9 x 0.75 mm ² – standard length 10m/25m
Connector	Male chassis connector- female cable connector
Connection board	Screw connection board at DIN-cassette

Aluminium details	SS 4212-06 + black anodizing
Servo Housing	SS 4212-06 + blue anodizing
Steel details	Stainless steel SS 2346 and SS 2333
Screws, nuts etc.	Stainless steel

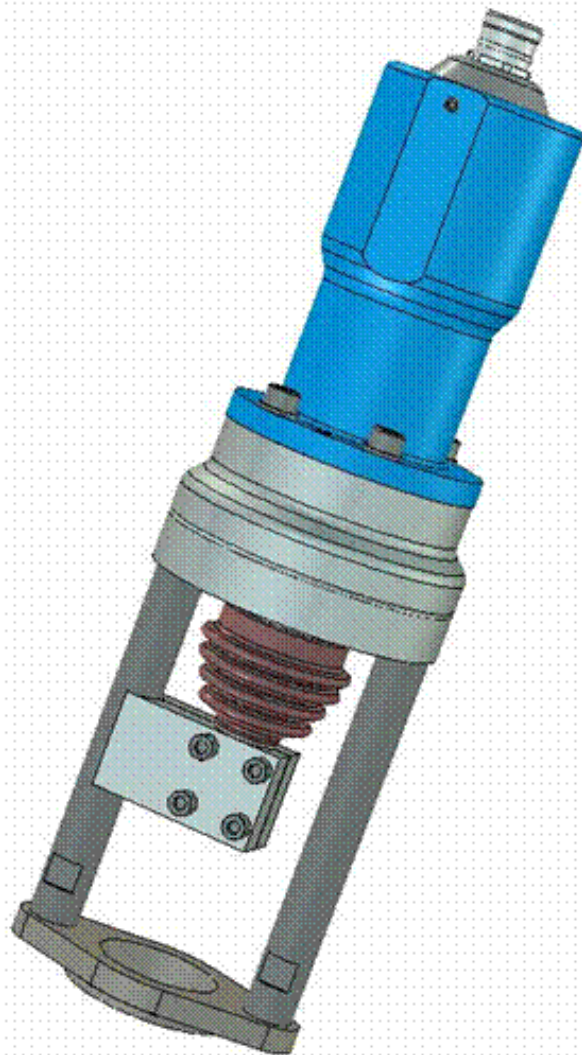
Performance	P30R	P30L1
Adjustable Control Torque (Nm)	5-30	
Max. velocity (°/sec.)	250	
Max. turns at output shaft	160	
Position – inaccuracy (°)	< +/- 0.5	
Adjustable Control Force (kN)		1.5-12
Positioning tolerance (prop. to the stroke)		1:1700
Max. speed – 10 mm screw pitch (mm/min)		400
Max. working range – 10 mm screw pitch (mm)		1600
Weight (kg)	3	7

Electrical Data

Power Voltage (V DC)	24 +/- 15%
Consumed max. power (W)	200
Consumed average power (W)	100
Max. current (A)	8
Average current (A)	4
Control signal (mA)	4-20
Position signal (mA)	4-20
Parameter adjustments	OVP



Oden P30R1
(for turning valves)



Oden P30L1
(for linear valves)

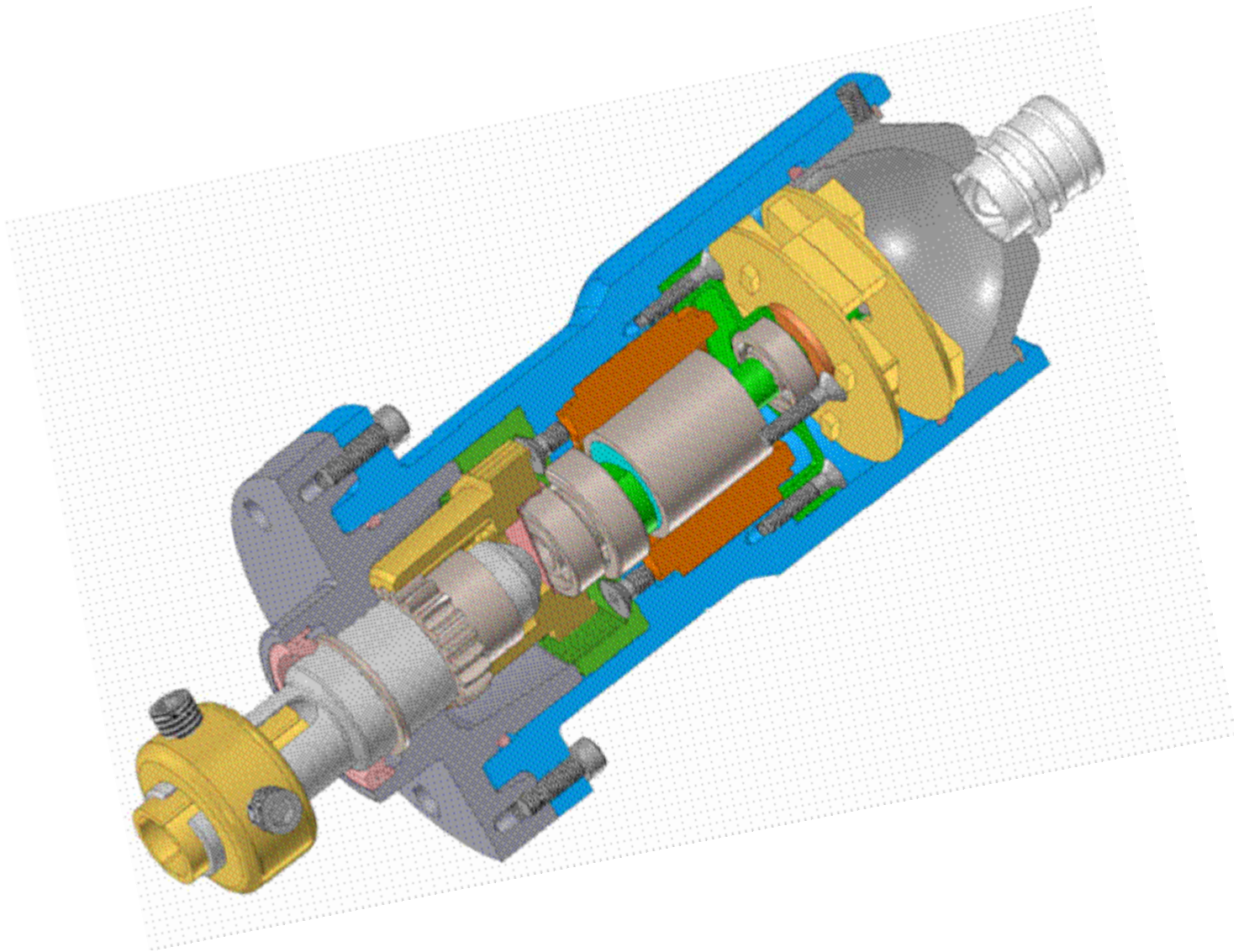
ODEN[®] VALVE PROGRAM (OVP)**INPUT DATA** (Default data will be used if no customer data is entered)

Parameters	P30R1 - R2			Parameters	P30L1		
	Default Data	Data (choices)	Customer Data		Default Data	Data (choices)	Customer Data
Closing direction of valve	CW	CCW		Closing direction of valve	IN	OUT	
Reaction at loss of signal	NONE	CLOSE / OPEN		Reaction at loss of signal	NONE	CLOSE / OPEN	
Control Torque (Nm)	30	10-30		Control Force (kN)	5	1.5-12	
Signal (mA) at closed position	4	2-12		Signal (mA) at closed position	4	2-12	
New calibration after > 8 hrs break of power	YES	NO		New calibration after > 8 hrs break of power	YES	NO	
Max. opening angle* (°)	85	10-90		Max. stroke ** (std) (mm)	20	0-40	
Signal (mA) at max. opening position	20	12-20		Signal (mA) at max opening position	20	12-20	
Speed* (°/ sec.)	50	0-250		Speed – 10 mm pitch (mm/min)	100	0-400	
Acceleration (relative value)	5	1-20		Acceleration (relative value)	5	1-20	
Shut-off angle (°)	0	0-20		Shut-off movement (mm)	0	0-10	

* Multiturn, max. 160 revolutions

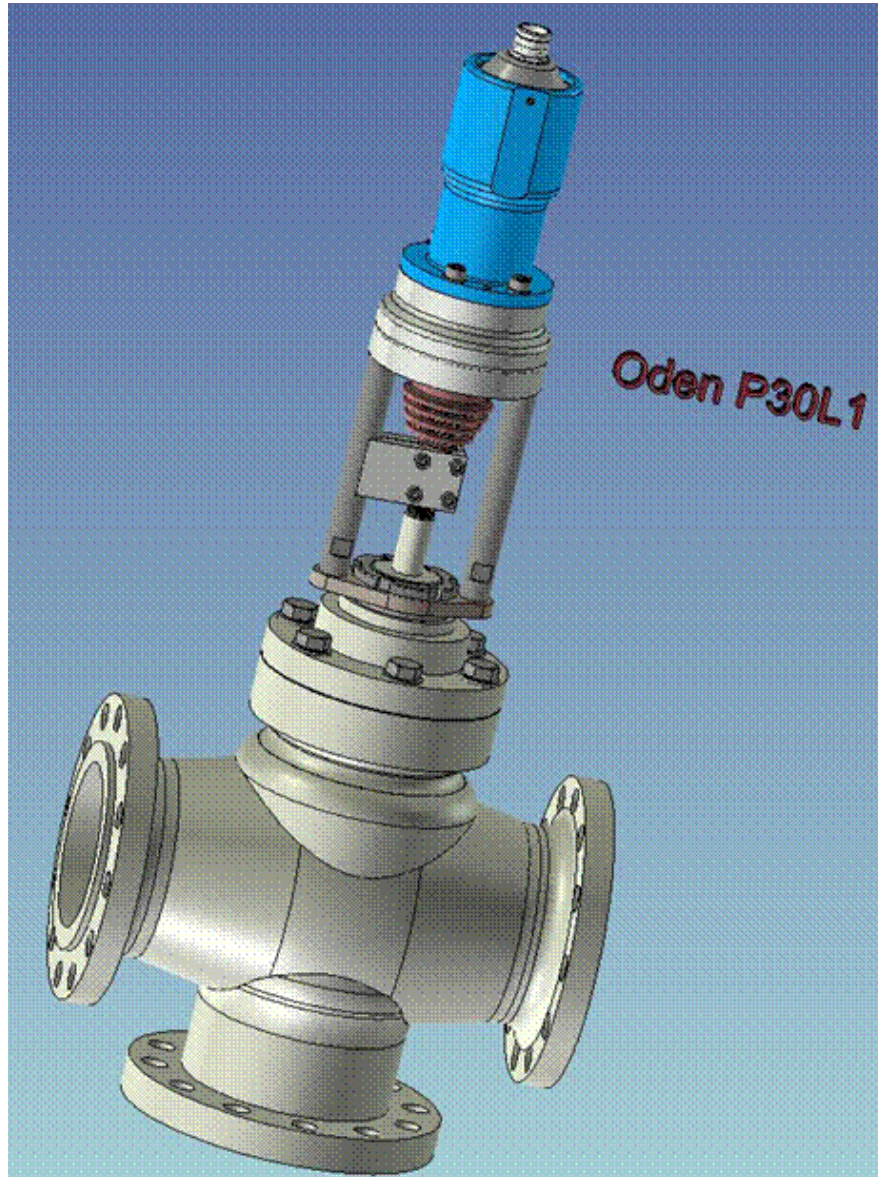
** Longstroke version— up to 1600 mm (10 mm screw pitch)

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Oden P30R1

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*Patent protected in all major countries.
US patent 5,913,744*

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