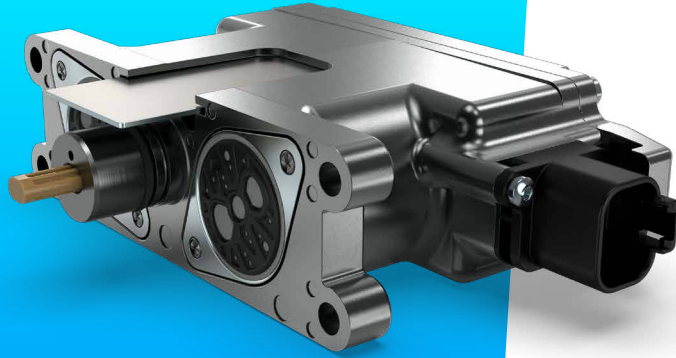


# Electrohydraulic Actuator [EHA 2.0 with PPCD 04 IPH]



Proportional  
valves

Directional  
valves

Smart  
products

Special  
designs

## Product classification

Name	Max volume flow @ 6 bar dp
EHA	2,5–5 l/min based on PPCD 04 IPH
	2,5–5 l/min based on PPCD 04
	10 l/min based on PPCD 05
EMA	



## Hydraulic Data

Max pressure pump	$P_p = 35 \text{ bar}$
Max pressure tank	$P_T = 10 \text{ bar}$
Max pressure work	$P_A = 25 \text{ bar}$
Contamination level	Min Filtration: 20/18/15 According to ISO 4406
Fluid	Mineral Oil According to DIN 51524
Temperature range	-30°C to +90°C (ambient) -30°C to +90°C (fluid)
Leakage (internal, each valve)*	< 0,06 l/min (de-energized) < 0,15 l/min (energized)
Filterscreen size	200 $\mu\text{m}$ (all Ports)

\* The reported data are measured @  $P_p=35 \text{ bar}$  and an oil viscosity of 32 cSt

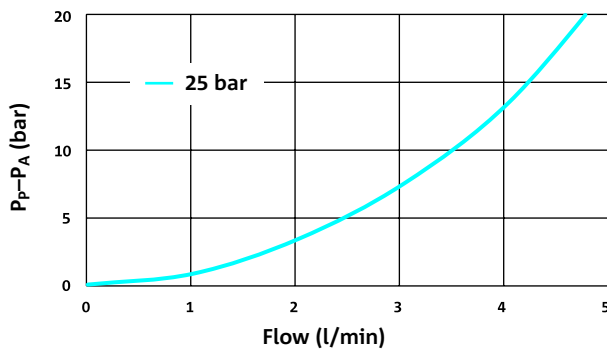
## Electrical Data

Voltage	12 V	24 V
Voltage range min/max	9/16 [V]	16/32 [V]
Short term overvoltage	36 V	
Max idle power	1 W	1 W
Max power consumption	25 W	
EMC Immunity	1) acc. to ISO 11452-2:2019,2015 100 V/m; 80-2500 Mhz 2) acc. to ISO 11452-4:2011 150 mA; 0,5-200 Mhz	
EMC Transient Conduction Test	acc. to ISO 7637-2:2011 Tests 1, 2a, 2b, 3a, 3b, 3, 5 Test level: IV except for 24 V systems + test No. 5 Test level: III	
Connector	Deutsch Connector DT14-6P	
Protection class	up to IP6K6 / IPX7	

## Flow characteristics (Average characteristic)

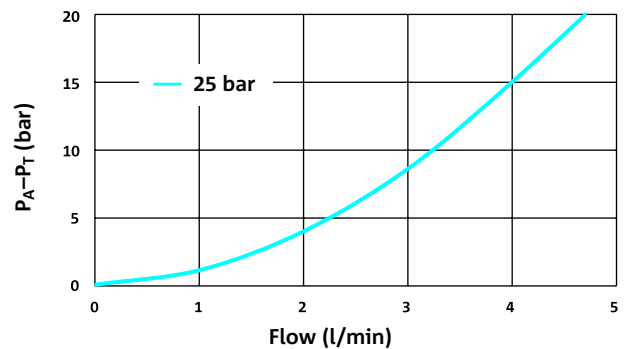
PRESSURE DROP PUMP TO CONTROL PORT (P→A)

Valve only



PRESSURE DROP CONTROL PORT TO TANK (A→T)

Valve only



## Safety functions The EHA provides three safety functions in compliance of DIN EN ISO 13849

	SAFETY FUNCTION 1	SAFETY FUNCTION 2	DIAGNOSTIC FUNCTION 3
	Current less state	Pressure less state	Rated customer diagnostic function - EHA diag-message
Description	Whenever the signal processing of setpoints along the rated safety-chain (CAN ... valve-coil) is disturbed, the valves enter the current less state, which is defined as the safe state.	Whenever the signal processing of setpoints along the rated safety-chain (CAN ... pilot-pressure) is disturbed, the valves enter the pressure less state, which is defined as the safe state.	The current position of the valve slider (accuracy $\pm 4\%$ ) is transmitted via the CAN bus interface cyclically (user configurable intervals of 10ms, 30ms and 100ms) accompanied by an error code in case one has occurred.
MTTFd	~ 100 years	~ 47 years	~ 100 years
Diagnostic coverage	~ 95 %	66 %	~ 95 %
Performance level	D	C	D

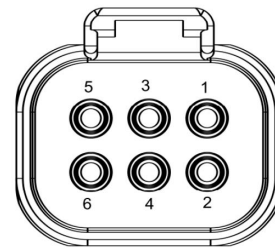


## Sensoric accuracy

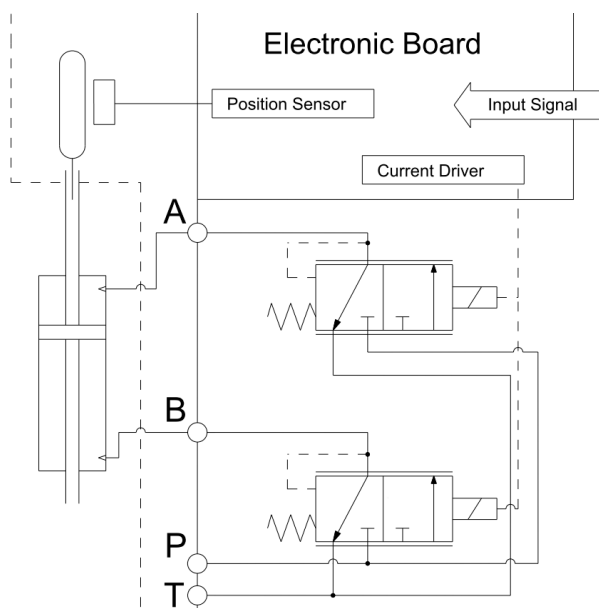
SENSOR TYPE	HALL EFFECT
Range	± 11 mm
Max. sensing deviation	< 90 µm
Max. position offset	30% (of max. stroke)

## Pin assignment

Pin number	Function
1	U Bat (battery voltage)
2	CAN_L CAN Signal (dominant low)
3	"Ain (analog input signal)" (Valve A for electrical override)
4	Agnd (analog output ground) (Valve B for electrical override)
5	GND (battery ground)
6	CAN_H CAN Signal (dominant high)



## Hydraulic schematic



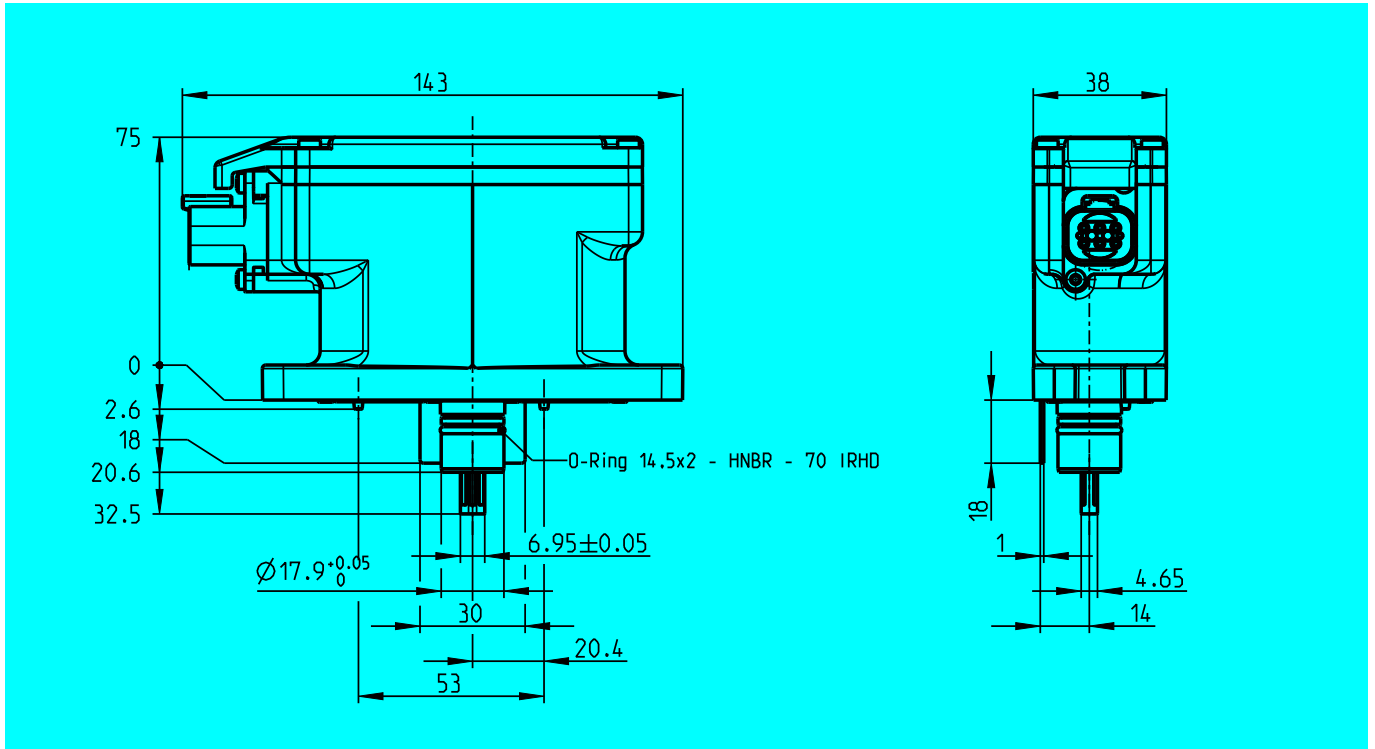
## Additional data

Weight	approx. 655 g
Mounting position (recommended)	any
Reference	Valve specifications according to Thomas LHP 98 EHA TES



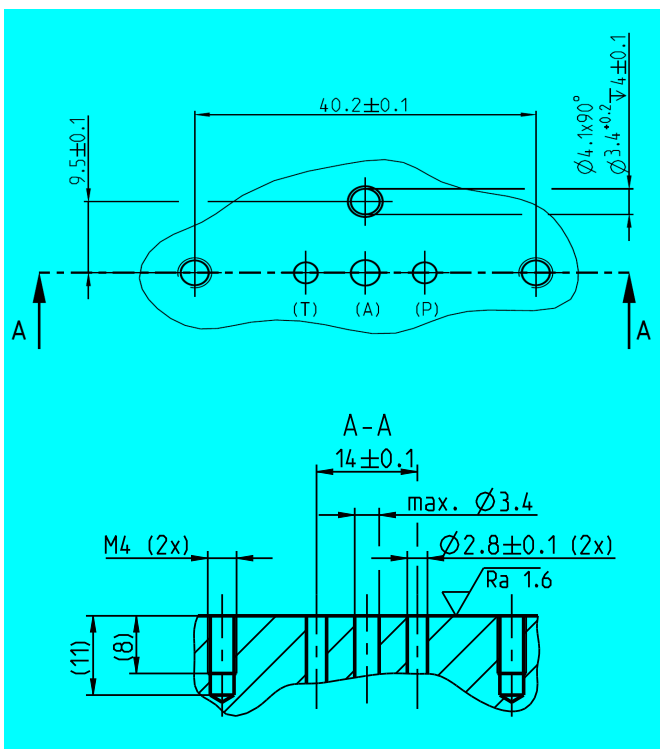
## Dimensions with Deutsch Connector and PPCD04 IPH

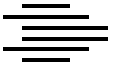
(All dimensions in mm)



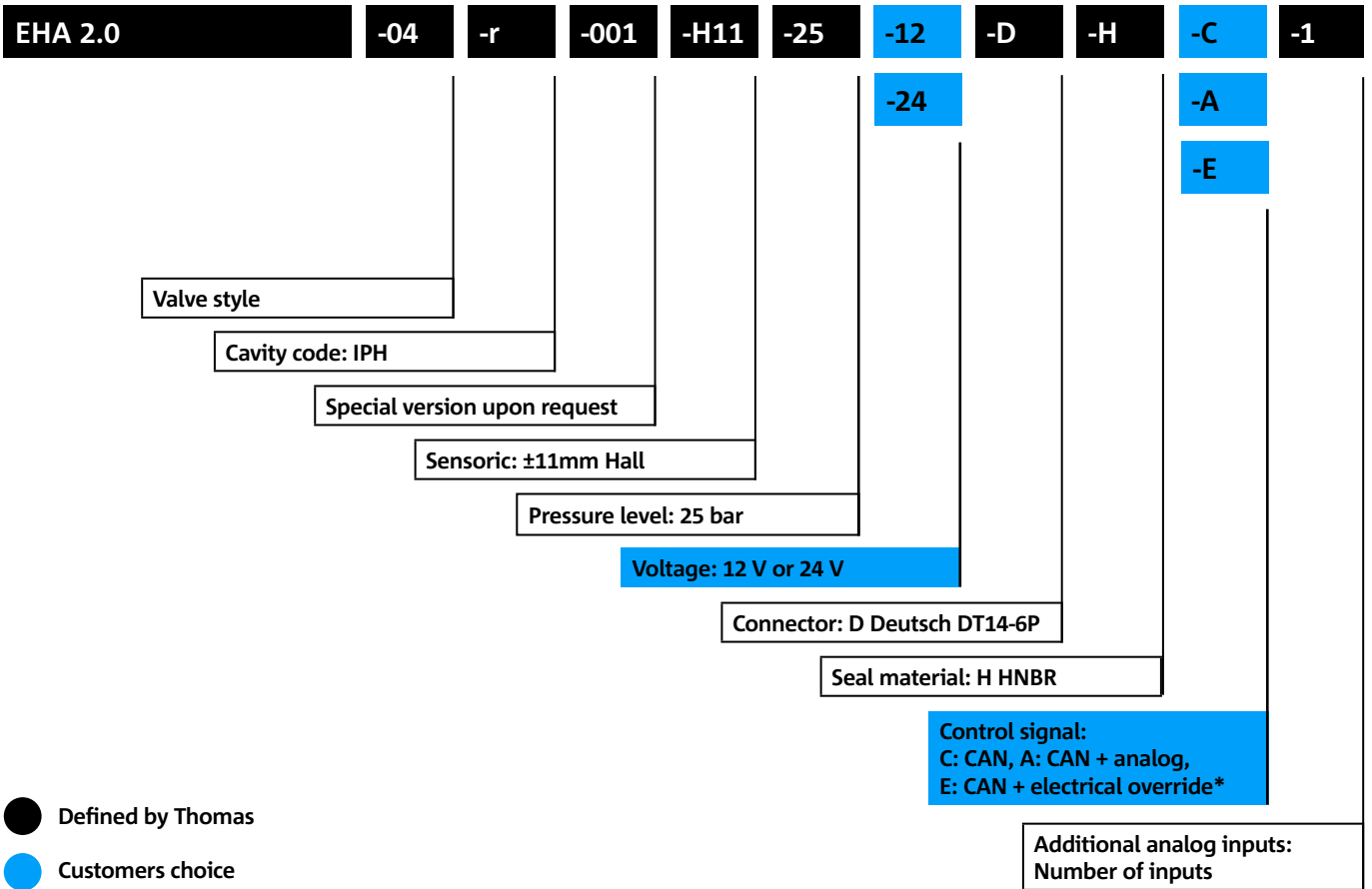
## Cavity Dimensions PPCD04 IPH

(All dimensions in mm)





## Model code



● Defined by Thomas

● Customers choice

\* 24 V variants

### CONTACT DETAILS



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Thomas Magnete GmbH

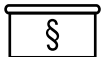
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