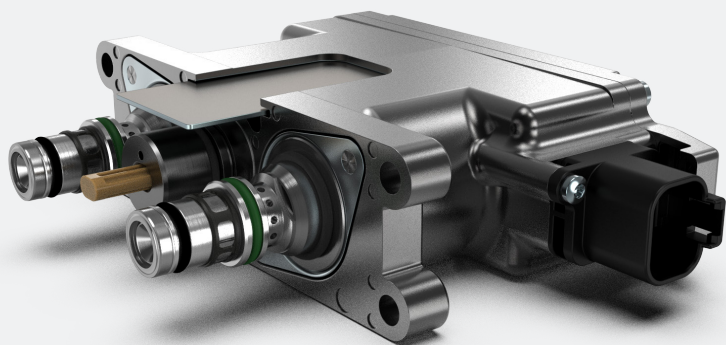


Electrohydraulic Actuator [EHA 2.0 with PPCD 05]



PRODUCT CLASSIFICATION

Smart products

Proportional valves

Directional valves

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	$P_p = 50$ bar
Max pressure tank	$P_T = 30$ bar
Max pressure work	$P_A = 30$ 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)*	< 0,03 l/min (de-energized) < 0,25 l/min (energized)
Filterscreen size	140 μ m (P-Port)

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

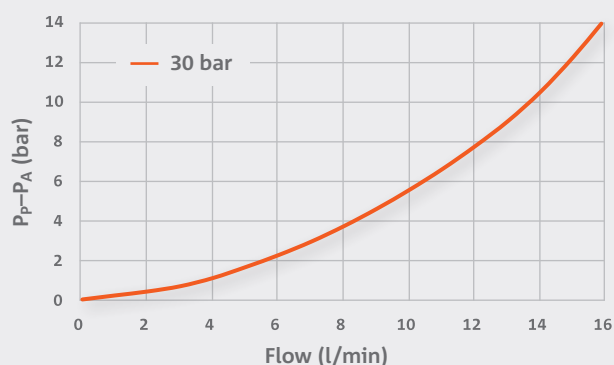
ELECTRICAL DATA

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 / IPX9K	

FLOW CHARACTERISTICS (AVERAGE CHARACTERISTIC)

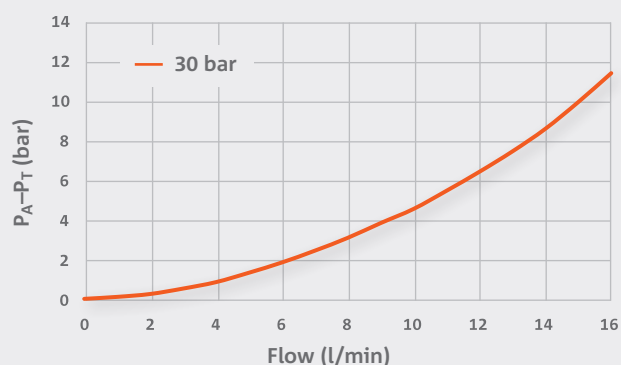
PRESSURE DROP PUMP TO CONTROL PORT (P→A)

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

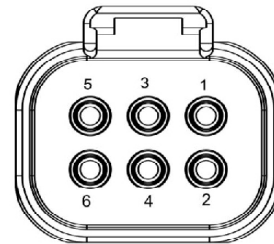
	SAFETY FUNCTION 1	SAFETY FUNCTION 2	DIAGNOSTIC FUNCTION 3
	Current less state	Pressure less state	Rated customer diagnostic function - EHA diag-message
Description	Whenever the signal processing of setpoints along the rated safety-chain (CAN ... valve-coil) is disturbed, the valves enter the current 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

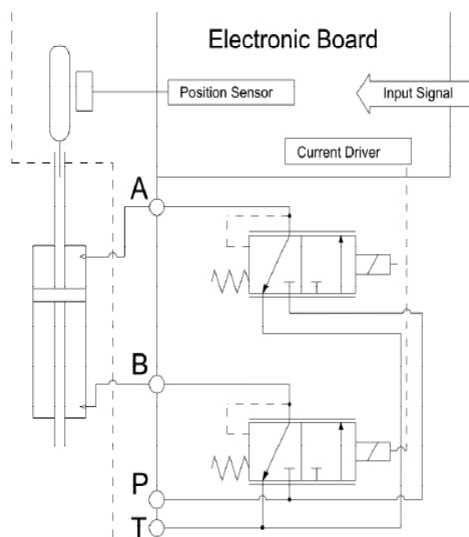
SENSOR TYPE	HALL EFFECT
Range	± 11 mm
Max. sensing deviation	< 90 μ m

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)



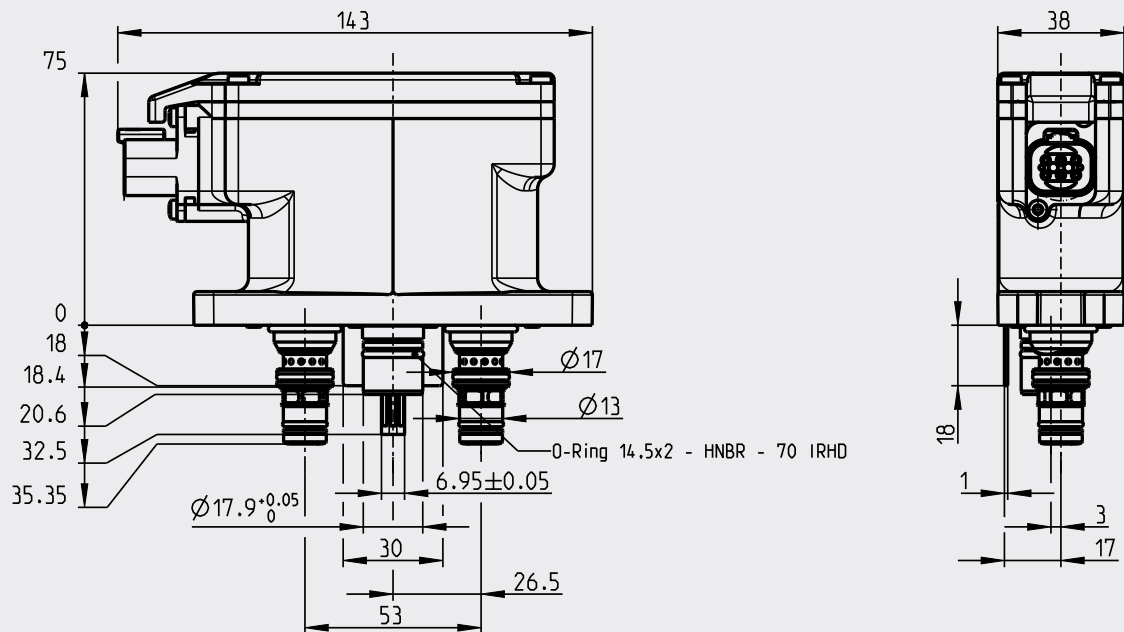
HYDRAULIC SCHEMATIC



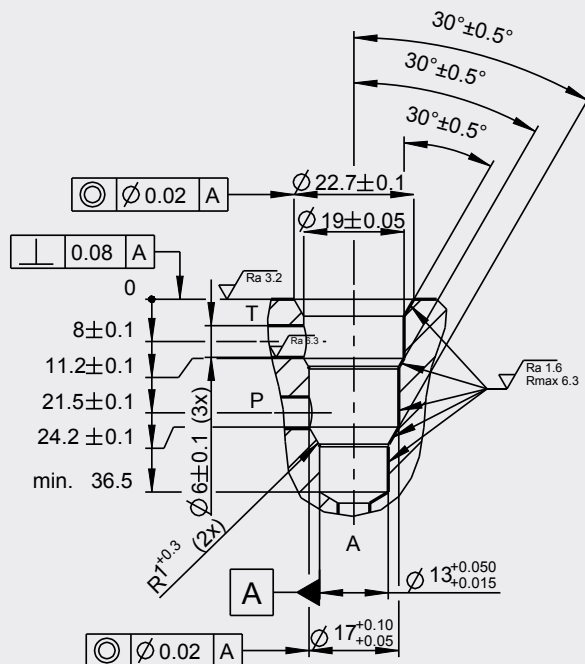
ADDITIONAL DATA

Weight	approx. 670 g
Mounting position (recommended)	any
Reference	Valve specifications according to Thomas LHP 98 EHA TES

DIMENSIONS WITH DEUTSCH CONNECTOR AND PPCD 05 (All dimensions in mm)



CAVITY DIMENSIONS PPCD 05 (All dimensions in mm)



MODEL CODE

EHA 2.0	-05	-k	-001	-H11	-30	-12	-D	-H	-C	-1
						-24			-A	
									-E	
Valve style										
Cavity code: NG Valve										
Special version upon request										
Sensoric: ±11mm Hall										
Pressure level: 30 bar										
Voltage: 12 V or 24 V										
Connector: D Deutsch DT14-6P										
Seal material: H HNBR										
Control signal: C: CAN, A: CAN + analog, E: CAN + electrical override*										
Additional analog inputs: Number of inputs										

Defined by Thomas

Customers choice

* 24 V variants

CONTACT DETAILS



Michael Lutz

Thomas Magnete GmbH

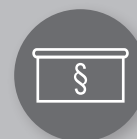
✓ Innomotion Park 3
57562 Herdorf, Germany

☎ Tel. +49 2744 929-220

📧 michael.lutz@thomas-magnete.com
www.thomas-group.com



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