

Integrated Pilot Head [IPH]

(Preliminary January 2021 - Patent pending)



PRODUCT CLASSIFICATION

Special designs

Proportional valves

Directional valves

Smart products

Name Max volume flow @ 6 bar dp

Name	Max volume flow @ 6 bar dp
ATEX	
IPH	2,0 l/min
IPRV	

HYDRAULIC DATA

Max pressure pump	$P_p = 35$ bar
Max pressure tank	$P_T = 10$ bar
Max pressure work	$P_A = 20$ and 25 bar
Hysteresis	< 2 % of the nominal pressure at 100 Hz PWM signal
Contamination level	Min Filtration: 20/18/15 According to ISO 4406
Fluid	Mineral Oil According to DIN 51524
Temperature range fluid	-30°C to +105°C
Leakage (internal)	< 0,03 l/min (de-energized) < 0,15 l/min (energized)
Filterscreen size	125 μ m (tbd.)

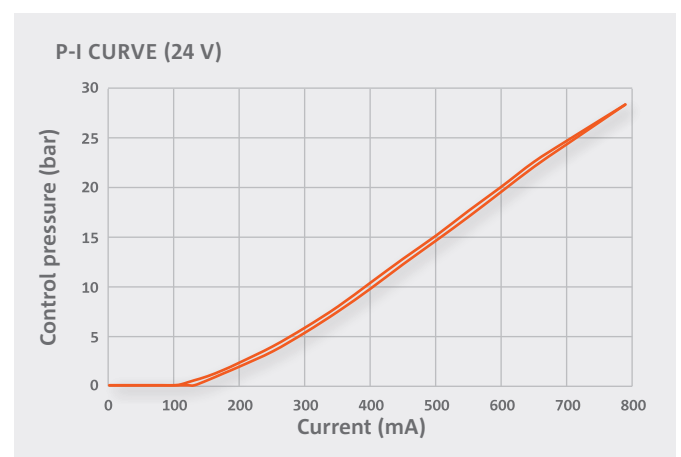
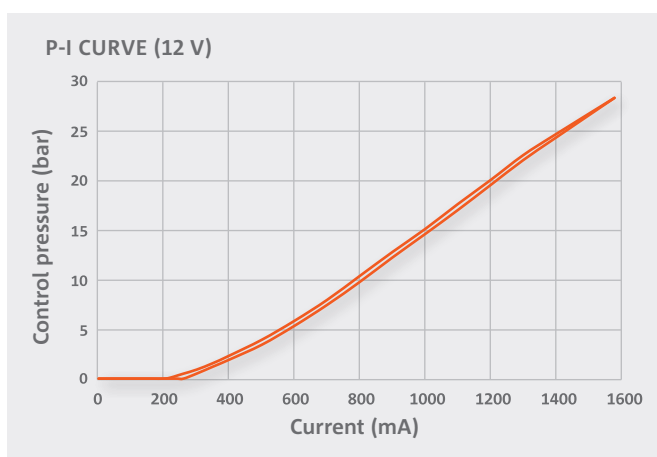
* The reported data are measured @ $P_p=35$ bar and an oil viscosity of 32 cSt

ELECTRICAL DATA

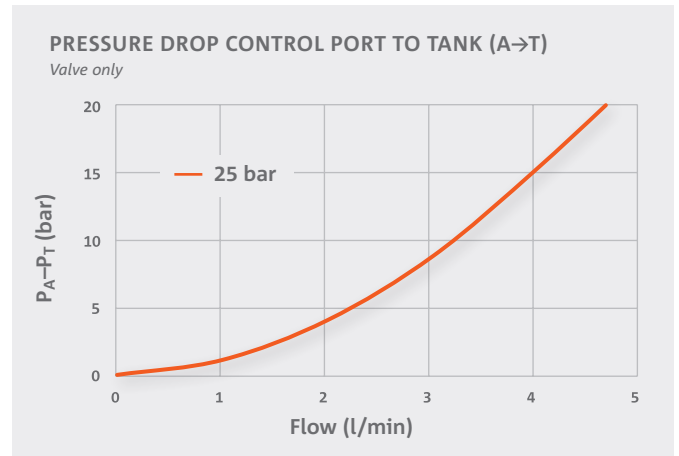
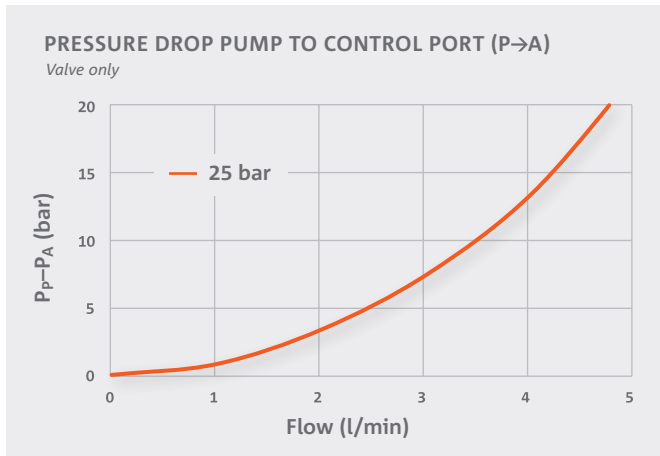
Voltage	12 V	24 V
Max current	1500 mA	750 mA
Resistance	4,72 $\Omega \pm 5\%$	20,8 $\Omega \pm 5\%$
Type of control** (Possibilities)	<ul style="list-style-type: none"> PWM: 100 - 280Hz Superimposed Dither: 100 - 250Hz (100 mA - 200mA amplitude p-to-p) (Ground PWM > 1000Hz) Recommended: Dither 100Hz (Amplitude: 200mA @12V, 100 mA @24V) 	
Connector	AMP Junior timer Deutsch Connector DT04-2P	
Protection class	up to IP6K6 / IPX7	
Switching time	$t_{on} < 40$ ms (pA = 0% to 90%) $t_{off} < 40$ ms (pA = 100% to 10%)	

** System performance can be optimized due to pilot valve control signal. Evaluation on system necessary.

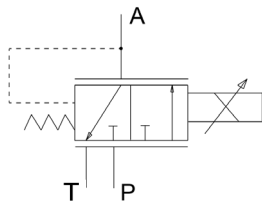
CURRENT VS. PRESSURE (AVERAGE CHARACTERISTIC)



FLOW CHARACTERISTICS (AVERAGE CHARACTERISTIC)



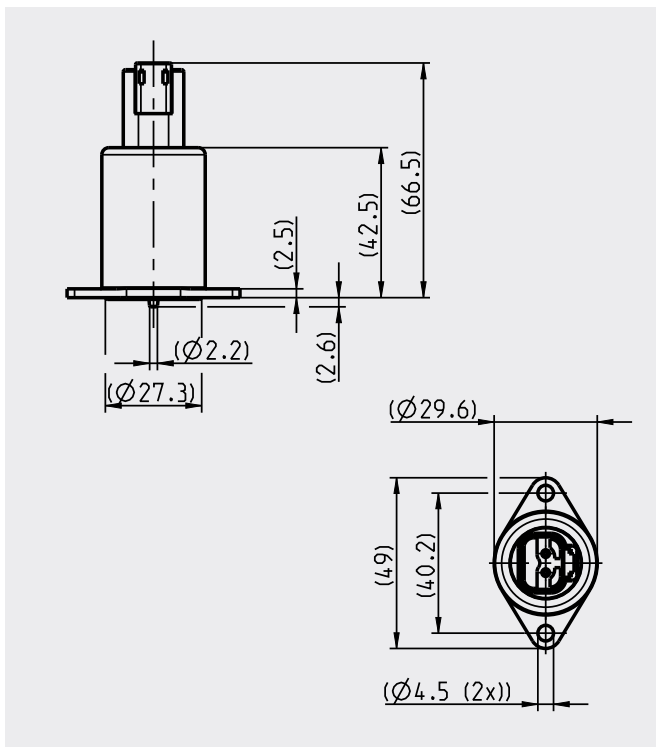
HYDRAULIC SCHEMATIC



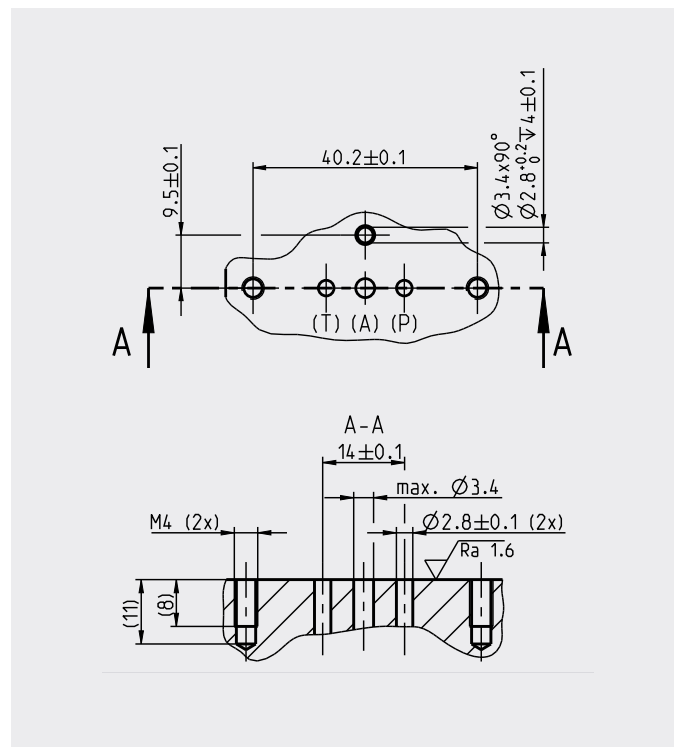
ADDITIONAL DATA

Weight	approx. 160 g
Mounting position (recommended)	any
Switching cycles (life time)	5 Mio cycles
MTTF_d-value	150 years
Reference	Valve specifications according to Thomas LHP tbd.

DIMENSIONS WITH DEUTSCH CONNECTOR* (All dimensions in mm)



CAVITY DIMENSIONS* (All dimensions in mm)



*The dimensions shown are explicitly to be regarded as preliminary. Thomas reserves itself the right to modify the valve dimensions and the interface to the customers system to the present development status.

MODEL CODE

PPCD 04	-001	-a	-r	-20	-12	-J	-H	-0
				-25	-24	-D		

Valve Style

Version

Solenoid type

Cavity type

Control pressure range:
20 or 25 bar

Voltage: 12 V or 24 V

Connector:
J AMP Jr Power Timer or
D Deutsch DT04-2P

Sealing material: H HNBR

Manual override: 0 without

- Defined by Thomas
- Customers choice

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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