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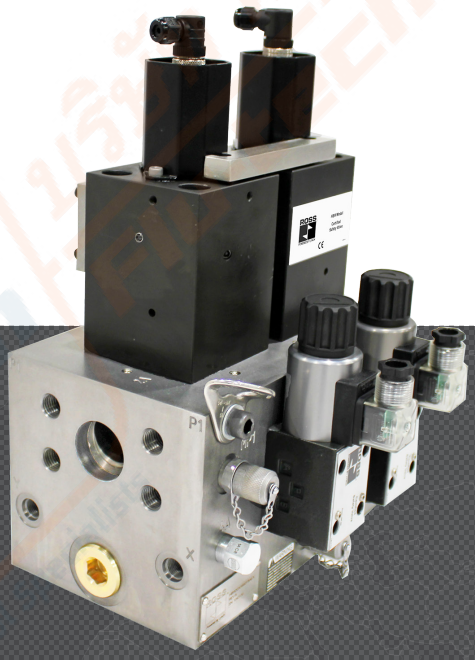
Flu-Tech
Fluid Control Specialists

บริษัท ฟลูเทค จำกัด
Flu-tech co.,ltd

Block & Stop
HBH Series Valve Systems



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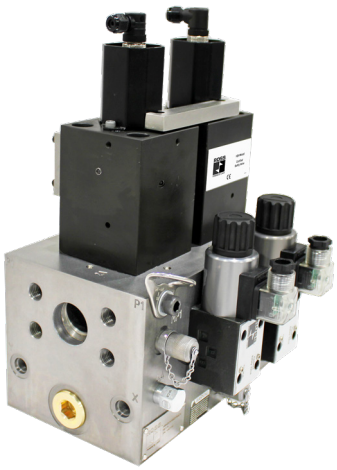
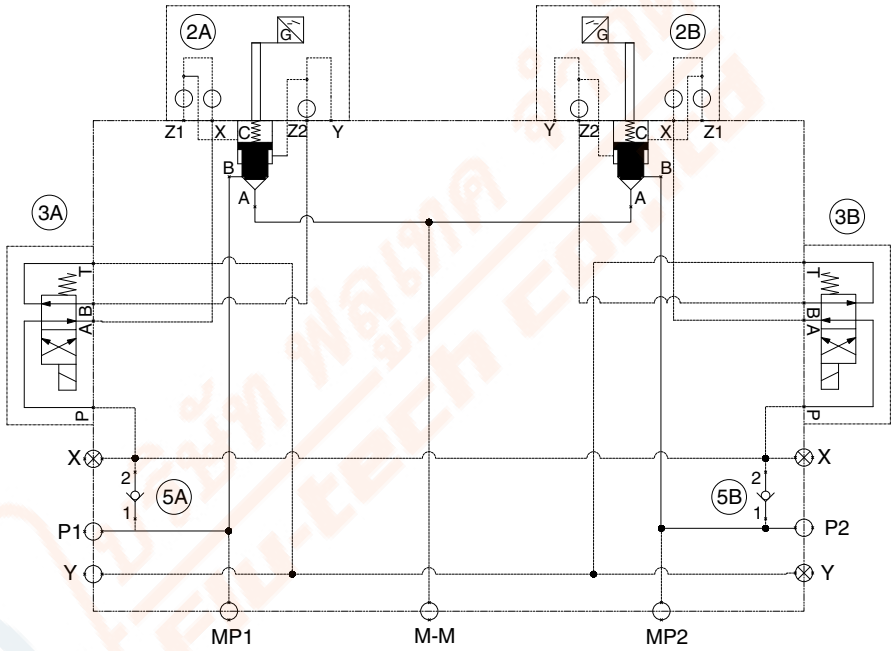


Block & Stop Safety Function
Blocks the flow of hydraulic fluid in order to stop cylinder motion.

Valve System Schematic



The HBH Series valves are redundant blocking valve systems designed for critical applications where safe block and stop is required for hydraulically controlled cylinders. These valve systems are equipped with inductive position switches for external monitoring by an electrical safety control system.

Valve System Features

External Monitoring	Each single valve in the HBH Series system is equipped with inductive position switches. Monitoring of these switches is to be done by an electrical safety control system.
Poppet and Spool Type Design	Poppet-type cartridge valve elements for blocking flow and stopping cylinder motion. Solenoid pilot valves are spool type.
Tamper Resistant	Special tool required for disassembly.
Mounting	In-line – with Code 62 Flange ports.

These valves are not designed for controlling clutch/brake mechanisms on mechanical power presses, or mechanical power press applications.

Specifications

STANDARD SPECIFICATIONS			
GENERAL	Actuation (solenoid- 2 per system)		One solenoid per valve element Solenoids must be operated synchronously
			Solenoid pilot operated, spring return
	Function		Block & Stop
	Construction Design		Redundant valve system, Poppet type with Spool type pilot valves
	Mounting	Type	In-line
		Orientation	Any, preferably horizontal
	Connection (hydraulic)		Code 62 Flange (P1 & P2), SAE (X, Y, MP1, M-M, MP2)
	Monitoring		Dynamic, cyclical, external with customer supplied equipment. Monitoring should check state of both valve position switches with any and all changes in state of valve control signals.
	Minimum Operation Frequency		Once per month, to ensure proper function
OPERATING CONDITIONS	Temperature	Ambient	-4° to 160°F (-20° to 71°C)
		Media	-4° to 140°F (-20° to 60°C)
	Flow Media	Hydraulic Fluids	Mineral Oil HLP, HL-DIN 51524
			Vegetable Oil HETG - VDMA 24568
	Operating Pressure		5000 psi (344 bar) maximum
ELECTRICAL DATA	Solenoids		Version as per VDE 0580; Rated for continuous duty Electrical connection according to EN 175301-803 Form A
	Operating Voltage		24 volts DC
	Power Consumption (each solenoid)		30 watts
	Inductive Position Switch (2 per system)		PNP (M12, 5-pin, A-coded)
	Maximum Current (each switch)		400mA maximum
CONSTRUCTION MATERIAL	Valve Body & Manifold		Ductile Iron
	Spool & Poppet		Steel
	Seals		Buna-N

IMPORTANT NOTE: Please read carefully and thoroughly all of the CAUTIONS, WARNINGS on the inside back cover.

Product Credentials	
Safety Category	**CE Conformity Declaration**
Cat. 3 PL d / SIL 2 Functional Safety *Pending*	CE *Pending*

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Ordering Information

Model Number Configurator — **3-Way 2-Position Valves**

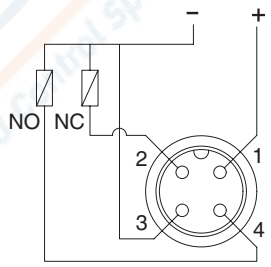
HBH	D	D	XX	682F	B	A	E	X	A
Series	Valve Type: Double	Material Type: Ductile Iron	Pressure Relief: No Pressure Relief Valve		Seal Type: Buna-N	Voltage: 24 volts DC	Monitoring: External	Communication: None	Revision Level

Body Size	Flow Rate	Port Size	Port Type	
25	0 to 90 gpm	1-1/2	Code 62 Flange	682F
		2	Code 62 Flange	692F
32	0 to 145 gpm	2	Code 62 Flange	792F

Body Size	Weight lb (kg)
25	112.3 (50.9)
32	142.8 (64.8)

Wiring Diagram

Inductive Position Switch Connector



1 = Supply +24 volts DC
2 = Output Signal NC
3 = Ground
4 = Output Signal NO

An Integration Guide for HBH Series valve systems is available from ROSS to provide information such as operation, monitoring, and integration into users control circuits, please visit www.rosscontrols.com.

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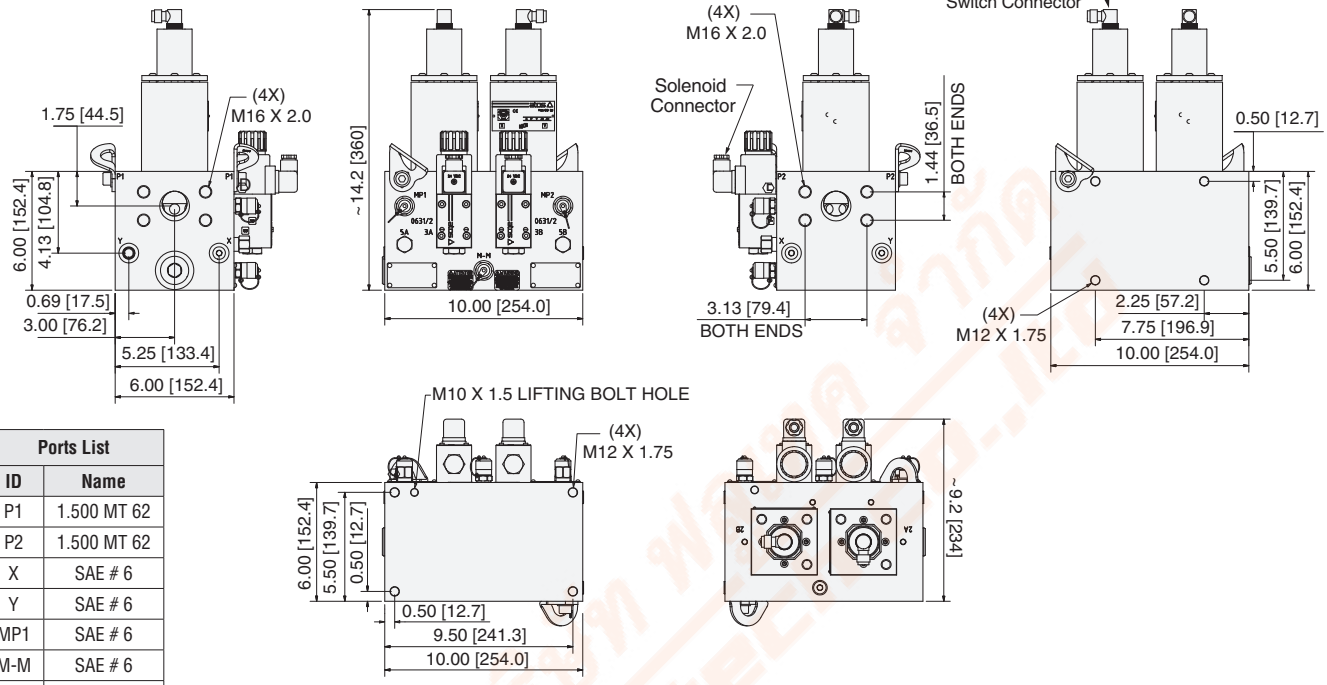
Dimensions – inches (mm) **Valve Technical Data**

Body Size 25

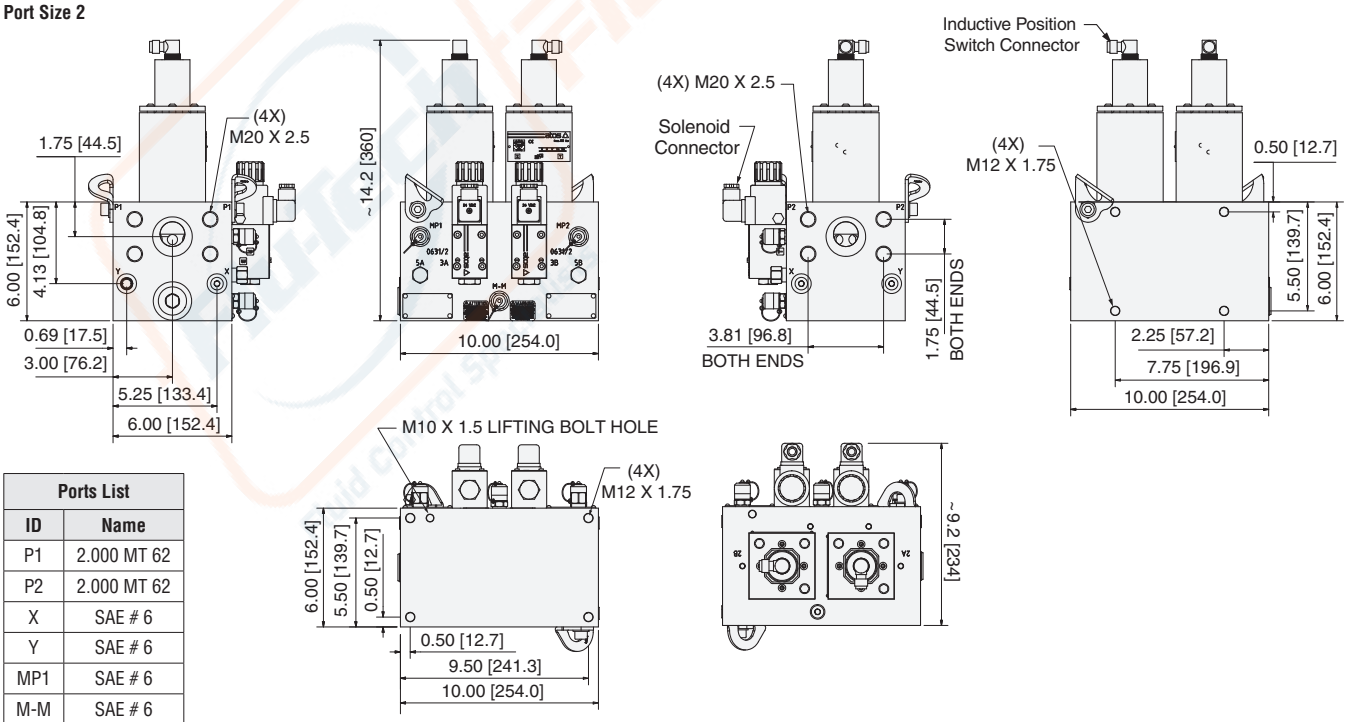
Port Size 1-1/2



Ports List	
ID	**Name**
P1	1.500 MT 62
P2	1.500 MT 62
X	SAE # 6
Y	SAE # 6
MP1	SAE # 6
M-M	SAE # 6
MP2	SAE # 6

Body Size 25

Port Size 2



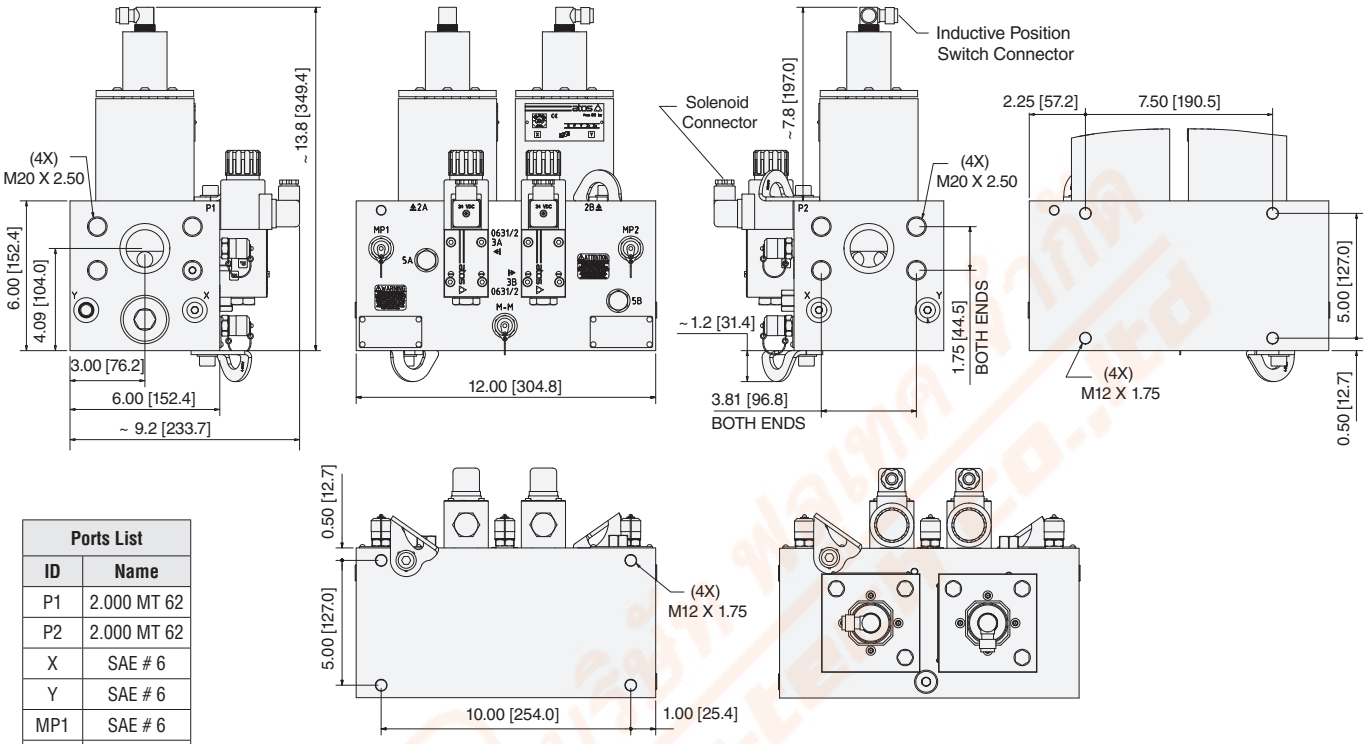
Ports List	
ID	**Name**
P1	2.000 MT 62
P2	2.000 MT 62
X	SAE # 6
Y	SAE # 6
MP1	SAE # 6
M-M	SAE # 6
MP2	SAE # 6

For additional information, and to assist you with piping and connectivity designs, our products are available in downloadable 2D drawings and 3D CAD models in a wide range of options including native formats, visit www.rosscontrols.com.

Dimensions

Dimensions – inches (mm) **Valve Technical Data**

Body Size 32



Ports List	
ID	**Name**
P1	2.000 MT 62
P2	2.000 MT 62
X	SAE # 6
Y	SAE # 6
MP1	SAE # 6
M-M	SAE # 6
MP2	SAE # 6

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Connectors (no cable)	Connection	Connector Type	Fitting Connection	Model Number		Quantity
				Without Light	Lighted Connector 24 Volts DC	
	Solenoid	EN 175301-803 Form A	–	937K87	936K87-W	1
			1/2” NPT conduit	723K77	724K77-W	1

Pre-wired Connectors	Connection	Connector Type	End 1	End 2	Length meters (feet)	Cord Diameter	Model Number		Quantity
							Without Light	Lighted Connector 24 Volts DC	
	Solenoid	EN 175301-803 Form A	Connector	Flying leads	2 (6.5)	6-mm	721K77	720K77-W	1
						10-mm	371K77	383K77-W	
					5 (16.4)	–	2243H77	–	2
					10 (32.8)	–	2244H77	–	
	Sensor	M12 5-pin, straight, A-coded	Female	Flying leads	5 (16.4)	–	2644B77	–	2
					10 (32.8)	–	2370B77	–	
				Male	5 (16.4)	–	2645B77	–	2
					10 (32.8)	–	2371B77	–	