



Valvistor® Line Extension

Proportional Slip-in
Cartridge Valve, Flow Control

K(B)TG4V-3 Pilot Stage
K(B)FTG4V-3 Pilot Stage



Valvistor with KBTG4V-3
as pilot valve

Eaton's Vickers® Valvistor® line is now extended with the addition of K(B)TG4V-3 and K(B)FTG4V-3 pilot stage proportional valves. The new features and benefits of the higher performance and on-board electronics (OBE) open up new applications and markets. The non-feedback valves offer performance that is comparable to conventional feedback valves. As its name implies, the Valvistor design has a main poppet valve that amplifies a low flow rate through the pilot circuit, similar to a transistor. This innovative design achieves servo-type control of the main poppet, without using an electrical

main poppet position feedback transducer on the Slip-in cartridge valve.

Features and benefits of the new valves include:

- Integral hydraulic feedback on main stage — Closed-loop, main-stage performance is achieved without using a main-stage LVDT.
- Pilot stage selected to meet specific requirements — Cost-effective design results in design flexibility.
- Pilot flow is directed to the load — Higher flow efficiency is achieved since the flow is not wasted to the tank.

- IP65 and IP67 environmental protection rated best in class — More reliable performance in harsh environments.

Applications include injection and blow molding, rubber molding, press, die-casting, offshore, civil engineering, marine, primary metal, and mobile applications.

The tables below show existing Valvistor configurations and the new extended configurations with K(B)TG4V-3 and K(B)FTG4V-3 as pilot valves.

High Performance

Pilot Valve Model Code & Part Number STEP RESPONSE (ms) DELTA P TESTED	EXTENDED CONFIGURATION		EXTENDED CONFIGURATIONS	
	Non-OBE Valve Package KFTG4V-3-2B13N-Z-M-U-H7-10 506834		OBE valve Package KBFTG4V-3-2B13N-Z-M1-PE7-H7-11, 5996165-001 KBFTG4V-3-2B13N-Z-M2-PE7-H7-11, 5996350-001	
	OPEN 10 BAR	CLOSE 10 BAR	OPEN 10 BAR	CLOSE 10 BAR
NG16	51	33	35	25
NG25	88	50	50	30
NG32	135	71	70	45
NG40	249	108	130	65
NG50	290	167	170	100
NG63	352	250	200	150
HYSTERESIS	1%	1%	1%	1%

Notes: Valvistor full flow reached at around 70% command input of K(B)F with 13N spool. For M2 version, the command input range is 4-12ma, valve is fully open at 4ma, and fully closed at 12ma.

Standard Performance

	EXTENDED CONFIGURATION		EXTENDED CONFIGURATIONS	
	OPEN 10 BAR	CLOSE 10 BAR	OPEN 10 BAR	CLOSE 10 BAR
Pilot Valve Model Code & Part Number	Non-OBE Valve Package KTG4V-3-2B08N-M-U-H7-60-EN427 02-398752 Other configurations available. Contact Eaton		OBE valve Package KBTG4V-3-2B08N-M1-PE7-H7-10-EN427 02-398750 KBTG4V-3-2B08N-M2-PE7-H7-10-EN427 02-398751	
STEP RESPONSE (ms) DELTA P TESTED				
NG16	50	40	38	24
NG25	85	60	66	36
NG32	130	85	101	51
NG40	240	130	186	78
NG50	280	200	217	120
NG63	340	300	264	180
HYSTERESIS	<5	<5	<5	<5

Notes: For M2 version, the command input range is 4-12ma, valve is fully open at 4ma, and fully closed at 12ma.

Economical Solution

	EXISTING CONFIGURATION		EXTENDED CONFIGURATIONS	
	OPEN 10 BAR	CLOSE 10 BAR	OPEN 10 BAR	CLOSE 10 BAR
Pilot Valve Model Code & Part Number	Non-OBE Valve Package KTG4V-3S-2B08N-M-U-H5-60-EN427 02-154581 Other configurations available. Contact Eaton		OBE Valve Package KBTG4V-3S-2B08N-M1-PE7-H5-10-EN427 02-397168 KBTG4V-3S-2B08N-M2-PE7-H5-10-EN427 02-398753	
STEP RESPONSE (ms) DELTA P TESTED				
NG16	50	40	38	24
NG25	85	60	66	36
NG32	130	85	101	51
NG40	240	130	186	78
NG50	280	200	217	120
NG63	340	300	264	180
HYSTERESIS	<8%	<8%	<8%	<8%

Notes: For M2 version, the command input range is 4-12ma, valve is fully open at 4ma, and fully closed at 12ma.

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