

Thermal System Internal Bypass Technology











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Internal Bypass Pressure Bypass

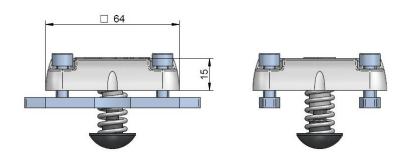


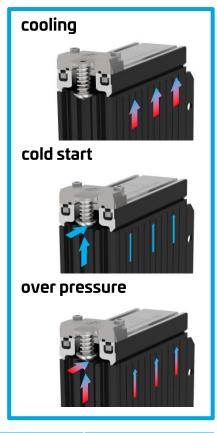
Integrating the bypass into our rail system cooler radiators is the best choice to protect the cooler and save costs and space at the same time.

The performance optimized design used a compact spring loaded bypass valve and bypasses the cooler through the center. The standard setting of 2bar protects the cooler at cold start conditions when the oil is extremely viscous. Moreover the valve opens at over pressure in case of high back flows, e.g. when using big differential cylinders. Gain from this system and order the next cooler with this integrated bypass system. Contact us for further information or visit www.asahydraulik.com.

Dimension on top of cooler

(mounted on asa rail system)





Technical Data

description	relief pressure	temperature	optional pressure settings	weight
	[bar]	[°C]	[bar]	[kg]
internal bypass for rail system	2	-20°C to +80°C	1 or 5	0,35

Materials

sealings	NBR / HNBR
rail flange	aluminium
corrosion protection temperature valve	all exposed surfaces: zinc-nickel plated

Availability

rail system coolers	TT05, TT07, TT11, TT13, TT16, TT21,TT25,
	TT30, TT36, TT40



This data sheet and the corresponding scale drawings are to be used as a general guideline and technical overview of our products. Please contact us if more exact information is needed. As we are constantly improving our products, their characteristics, dimensions and weights may also change, although we do our best to incorporate these changes continually, as a assumes no liability for any information therein, any errors, omissions, misprints, nor any direct or indirect damages, losses or costs resulting therefrom. Any cooling performances and general technical values indicated in this catalogue are measured at a test bench according to as a testing procedures or calculated, based on such tests. They represent a basis for your product selection. Due to different conditions in testing and application environments the performance may also vary by ½-15%. All sound values are determined in accordance with ISO 9614-2, DIN Br ISO 11203 accuracy class 3 or Machinery Directive 2006/42/EC and are A-rated. At some of the performance data, possible differences to competition data are possible. The reason to that are no existing standardized testing procedures on individual subjects, e.g. for cooling performance measurements. Therefore, we recommend all products to be checked under the system operating conditions. This is also true of vibrations and mechanical stress as well as for pressure peaks and thermal stress and any other relevant factors. General tolerances according to DIN ISO 2768-VL, General tolerances for casted parts according EN ISO 8062-3 (DCTG 10). Tolerances for cubber parts are according to ISO 3302-1 (class M4-F+C). The tolerances of welding seams are defined by quality group D according to EN ISO 10042, if it is not specified on the actual scale drawing or data sheet. Any form of liability is excluded for the information included in this datasheet. All details and calculation values are checked to the best of our ability, but these do not ensure any intrinsic product properties: due to the wide-ranging

Internal Bypass

Temperature bypass valve for asa rail system coolers

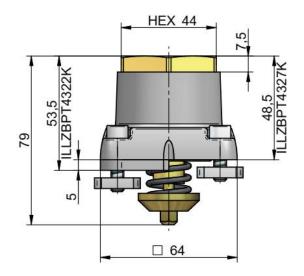


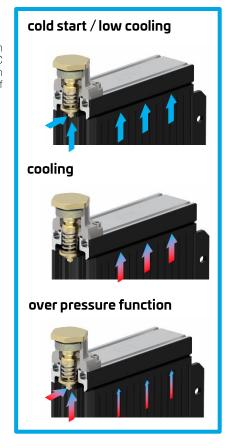
The thermal bypass valve is an accessory to our oil/air coolers with the asa rail system, also for easy retro fit on existing coolers in the field with internal bypass.

The function is to keep the cooling performance to a minimum on a permanent fan drive system avoiding unwanted cooling at cold start conditions. The valve opens the bypass channel below 43°C and closes for maximum oil flow through the oil channels above 43°C to 54°C. Moreover the function of a spring loaded bypass valve is also integrated to protect the radiator core in case of overpressure and high return oil flows e.g. when differential cylinders are used.

Dimension on top of cooler

(mounted on asa rail system)





Technical Data

order number	description	max. working temperature	Closing starts at	Completely alosed at	relief pressure	max. working pressure (static)	weight
			[°C]	[°C]	[bar]	[bar]	[kg]
ILLZBPT4322K	Thermo-BP valve 43°C-54°C, 22mm	100°C	43	54	5*	26	0,3
ILLZBPT4327K	Thermo-BP valve 43°C-54°C, 27mm	100°C	43	54	5*	26	0,3

^{*...}opens only if temperature bypass is closed (= >54°C)

Materials

	rail connector	aluminium	
	bypass valve	brass	
	sealings	NBR	
Avail	ability		
	ILLZBPT4322K	rail system coolers TT05, TT07, TT11, TT13, TT30, TT40	
	ILLZBPT4327K	rail system coolers TT16, TT21, TT25, TT36	
Compatibility			
	minimum fluid cleanness	class 20/18/15 acc. ISO 4406:1999	
	viscosity range:	10650mm²/s (cSt) recommended 15250mm²/s (cSt)	

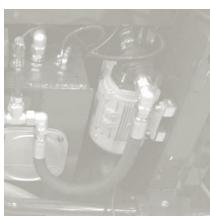


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