Rexroth
Bosch Group

HICFP – Electrohydraulic Remote Control Manifolds

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Standardized series of electrohydraulic remote control manifolds fitted with pressure reducing valves of the high-performance category

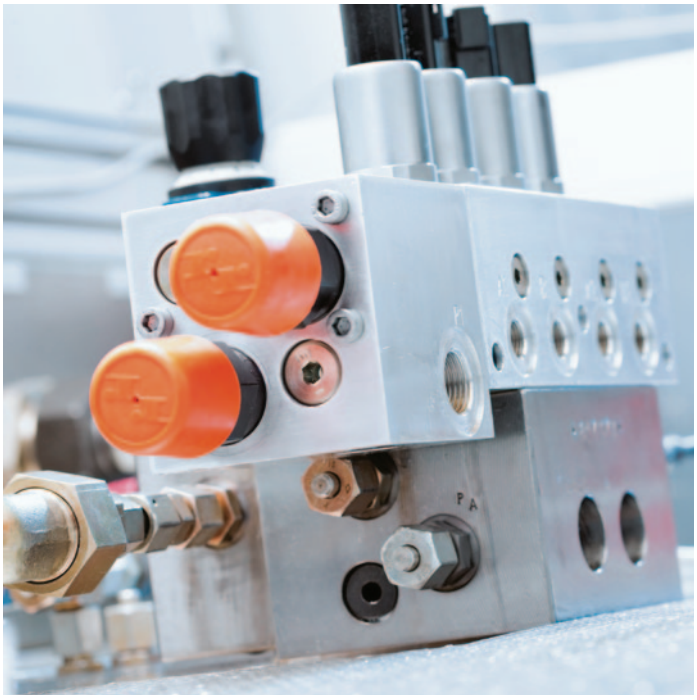
HICFP – Electro-hydraulic Remote Control Manifolds

The HICFP offered by Bosch Rexroth is a new series of electrohydraulic remote control manifolds. This new series, which comprises three sizes, substitutes an existing program. Remote control plates are primarily used in mobile hydraulics and allow the physical separation of electrical control and hydraulic working circuit. With the development of these valves, the focus was especially on high flexibility with regard to the integration into customer applications and high quality of the components.

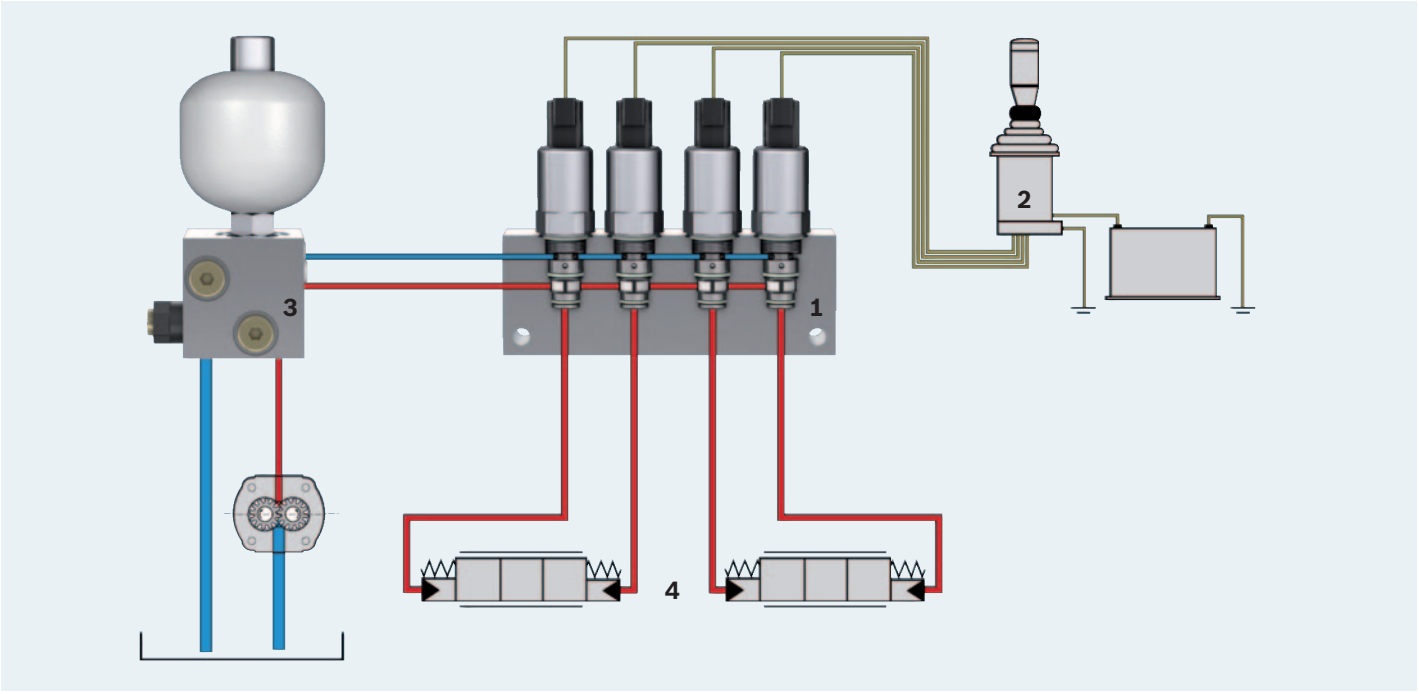
In terms of repeatability, leakage and hysteresis, these remote control plates show excellent values. Therefore, they allow the flow to be controlled very sensitively. Thanks to narrow tolerances during operation of the valves, the customer benefits directly from the quality of the products due to improved controlling of actuator movements.

Bosch Rexroth's long-standing manufacturing experience in this sector ensures safety and reliability of the application in the field.

The intelligent design and synergies of the HICFP construction kit as well as modern proportional pressure reducing valves allow cost savings to be achieved, which are reflected in low selling prices.

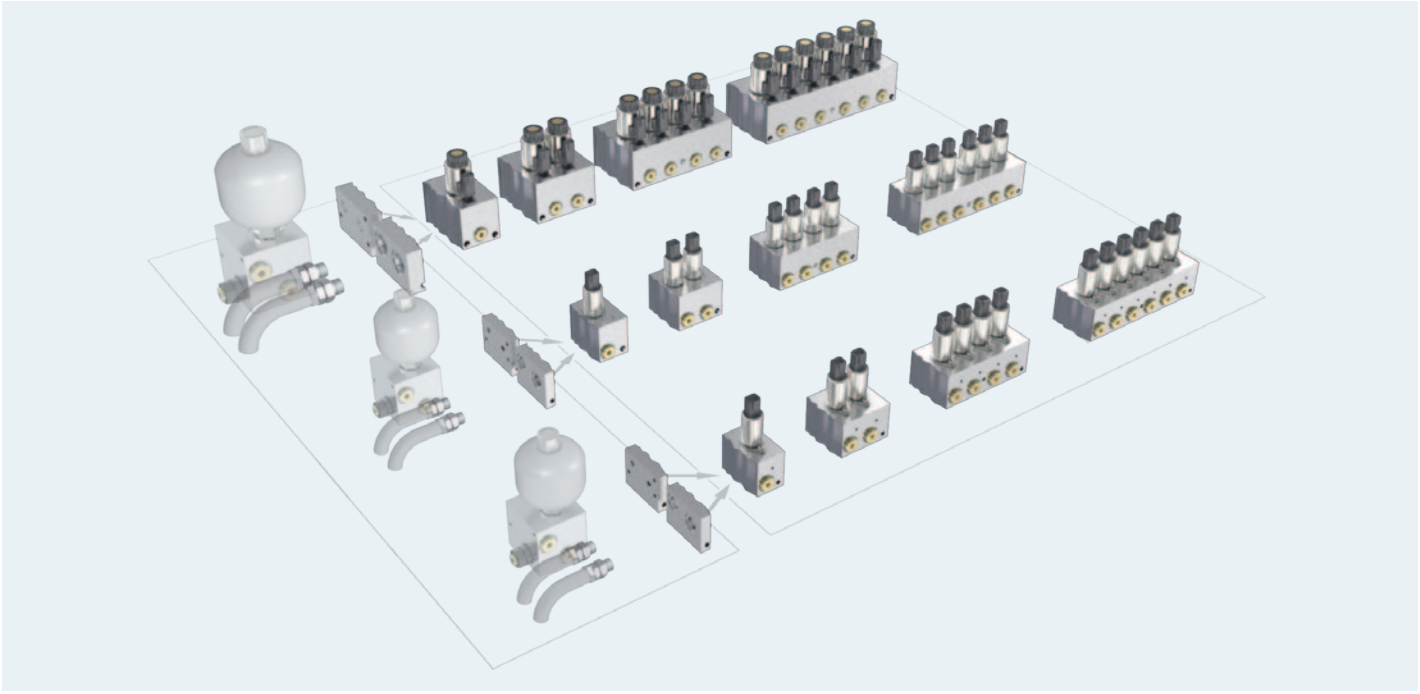


Operating Principle and Technical Data



- Depending on the electrical command value of an electrical pilot control device **(2)**, HICFP **(1)** proportionally control a hydraulic pressure, which can be used to pilot further hydraulic components.
- The inlet pressure, which is provided by the pilot control circuit or an optional power supply **(3)** is proportionally regulated by MHDRE pressure reducing valves and then fed to the associated pilot spool **(4)** of an actuator.

The customer can choose from three different valve sizes. Moreover, the HICFP can be fitted with pilot oil, accumulator, filtration and ancillary functions via an optional flange face. This offers customers a high degree of freedom for their own design and allows the remote control plate to be optimally integrated into the application at hand.



Cost-efficient solution for electrohydraulic proportional controlling:

- Optimized production processes
- Use of aluminum, standardized block cross-sections
- Advanced valve technology

Increased flexibility for optimum integration into the customer application:

- Physical separation of electrical control and hydraulic working circuit
- Pilot oil, accumulator, filtration, ancillary functions and customized blocks can be flange-mounted

Low application risk through excellent quality:

- Sensitive flow control and low leakage
- Monitored component placement processes and hydraulic testing
- Long-standing application experience

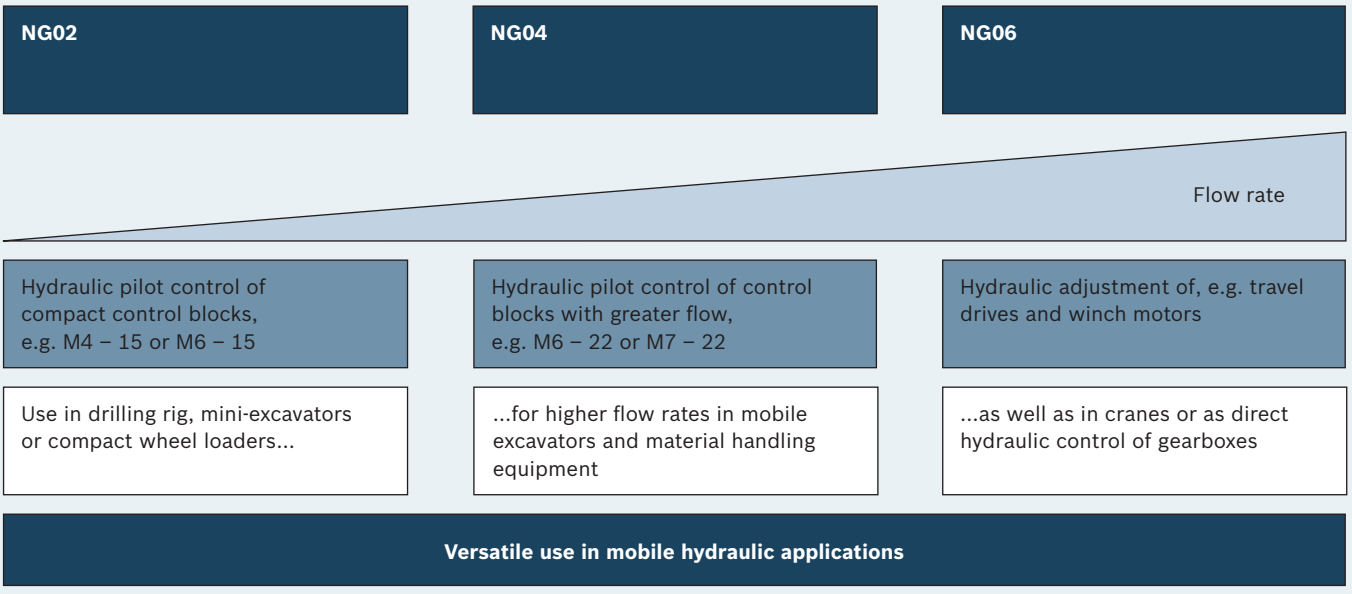
Details on technical data can be found in the following data sheets:

HICFP: RE64662, MHDRE 02: RE64658, MHDRE 04: RE64666, MHDRE 06: RE64655

Fields of application, Advantages and Customer Benefit

HICFP allow couplings, pumps and directional valves to be controlled and can be used in further proportional pilot controls (especially in the mobile sector).

Fields of application



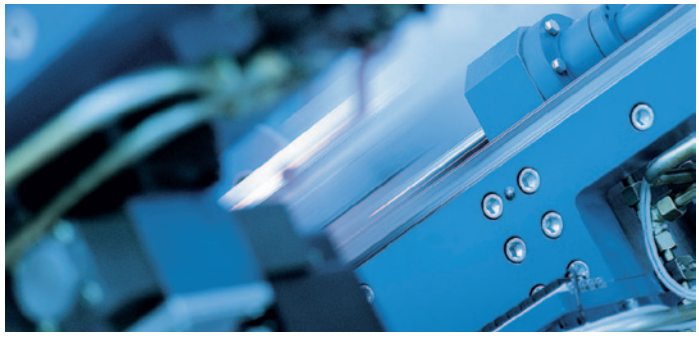
General data	
Installation orientation	Optional, if it is ensured that the valve remains filled with oil. Otherwise: Suspended mounting of the valve
Ambient temperature in °C	-30 to +110
Storage temperature range in °C	-30 to +80

Electrical data NG	**02**	**04**	**06**	**02**	**04**	**06**
V supply voltage	12DC			24DC		
A max. control current	1,7	1,7	1,45	0,95	0,95	0,7
Ω coil resistance Cold value at 20 °C	3,5	3,5	5	11,1	11,1	11,1

Hydraulic data NG	**02**	**04**	**06**
Max. inlet pressure at main port P in bar	50	100	100
Max. backpressure in main port T in bar	Depressurized (max. 100 bar of 3 bar with size 02; any tank pressures add to the control pressure of the valves)		
Flow (at 40 °C, Δp = 7 bar) in l/min	≥2,5	≥6	≥30
Hydraulic fluid	Mineral oil (HL, HLP) to DIN 51524		
Hydraulic fluid temperature in °C	-30 to +110	-30 to +110	-40 to +120
Duty cycles of the valves in million	10		
Strainer element in port P of the valves in µm	150	150	250

Efficient Hydraulics Paired with Multi-technology Competence

Intelligent hydraulics in new dimensions: As leading supplier in industrial hydraulics, Rexroth takes an outstanding position with components, systems, distinct application know-how and high engineering competence.



With Rexroth, you can choose from the world's largest product range of application-related systems and customized special solutions of high quality. In conjunction with advanced microelectronics, Rexroth has made hydraulics even more efficient. The products can be easily integrated into modern machine concepts, are extremely powerful and feature high energetic efficiency. Being a supplier for all technologies, Rexroth always offers the ideal application-specific drive solution. Rexroth is your ideal development partner for highly efficient machinery and production facilities – from the first contact through to commissioning and over the entire lifecycle. Teams who are active all around the world assume the complete engineering of your plant and machinery, if requested, until maturity for series production or turnkey handover. With multi-technological competence and the use of drive and control technology from Rexroth you will be more competitive than ever.

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