



Electro-hydraulic Proportional Valve Series

2 to 500 ℓ /min
21,25,28,35MPa

Overview

Today's hydraulic systems demand high levels of automation, power efficiency, and energy efficiency, which is why the use of electro-hydraulic proportional valves is on the rise. Built-in electronic

components deliver outstanding response and fluid pressure that allows high output, as well as superior operation, and control. The NACHI Electro-hydraulic Proportional Valve Series includes the

pressure control valves, flow control valves, and direction control valves that make it easy to meet these needs.

Features

① Pressure Control Valve Series

EPR Series – Small-volume direct driver type pilot relief valve

ER Series – Large-volume balanced piston type relief valve

EGB Series – Large-volume balanced piston type pressure reducing valve with relief function

The pressure control section uses a poppet structure, which is virtually impervious to the effects of dirt in the operating fluid for outstanding pressure stability.

② Flow Control Valve Series

ES Series – This 3-directional valve provides proportional flow control in accordance with input current.

ESR Series – With a built-in rod sensing function, this 3-way valve is for use in low-energy circuits.

A force feedback mechanism is used for main spool positioning, and amplification is performed by the pilot spool. The result is superior response

with small hysteresis and outstanding flow rate reproduction.

③ Direction Flow Control Valve Series

ESD Series – This electro-hydraulic proportional valve provides both direction control and flow control functions. Mounting methods are the same as those for standard directional valves, which allows simple structuring and maintenance.

④ Modular Type Control Valve Series

EOG-G01 – This reduction valve with relief function can be used in ganged configurations.

EOF-G01 – This flow control valve combines a restrictor valve with a pressure compensation valve.

This dual configuration provides easy installation along with dramatically reduced space requirements.

⑤ Power Amplifiers

EMA Series – Amplifier type

EMC Series – Controller type

A current-feedback amplifier system is used to virtually eliminate output current fluctuation. The same power supply specifications apply to all types.

⑥ Compact Power Amplifiers

EBA Series – Amplifier type

The highly efficient PWM control system of this new series ensures high reliability in a compact configuration.

⑦ Compact, Multi-function Power Amplifiers

EDA Series – Amplifier type

This compact amplifier can drive two solenoids with a single DC input.

EDC Series – Amplifier controller type

A choice of inputs: 6-contact or DC 2 input/4-contact

Series List

Name	Maximum Working Pressure MPa {kgf/cm ² }	Rated Flow Rate ℓ/min												
		1	2	10	50	100	200	300	400	500				
Electro-hydraulic Proportional Valve (EPR)	35 {357}	01 — Size												
Electro-hydraulic Proportional Relief Valve (ER)	35 {357}				03		06							
Electro-hydraulic Proportional Relief and Reducing Valve (EGB)	25 {255}			03		06								
Electro-hydraulic Proportional Flow Control Valve (ES)	21 {214}		02		03		06		10					
Load Sensitive Electro-hydraulic Proportional Relief and Flow Control Valve (ESR)	25 {255}			03			06		10					
Electro-hydraulic Proportional Flow Control Valve (ESD)	25 {255}		01		03		04		06					
Modular Type Electro-hydraulic Proportional Reducing Valve (EOG)	25 {255}		01											
Modular Type Electro-hydraulic Flow Control Valve (EOF)	21 {214}		01											
Power Amplifier (EMA) (EMC)														
Compact Power Amplifier (EBA)														
Compact, Multi-function Power Amplifier (EDA) (EDC)														