

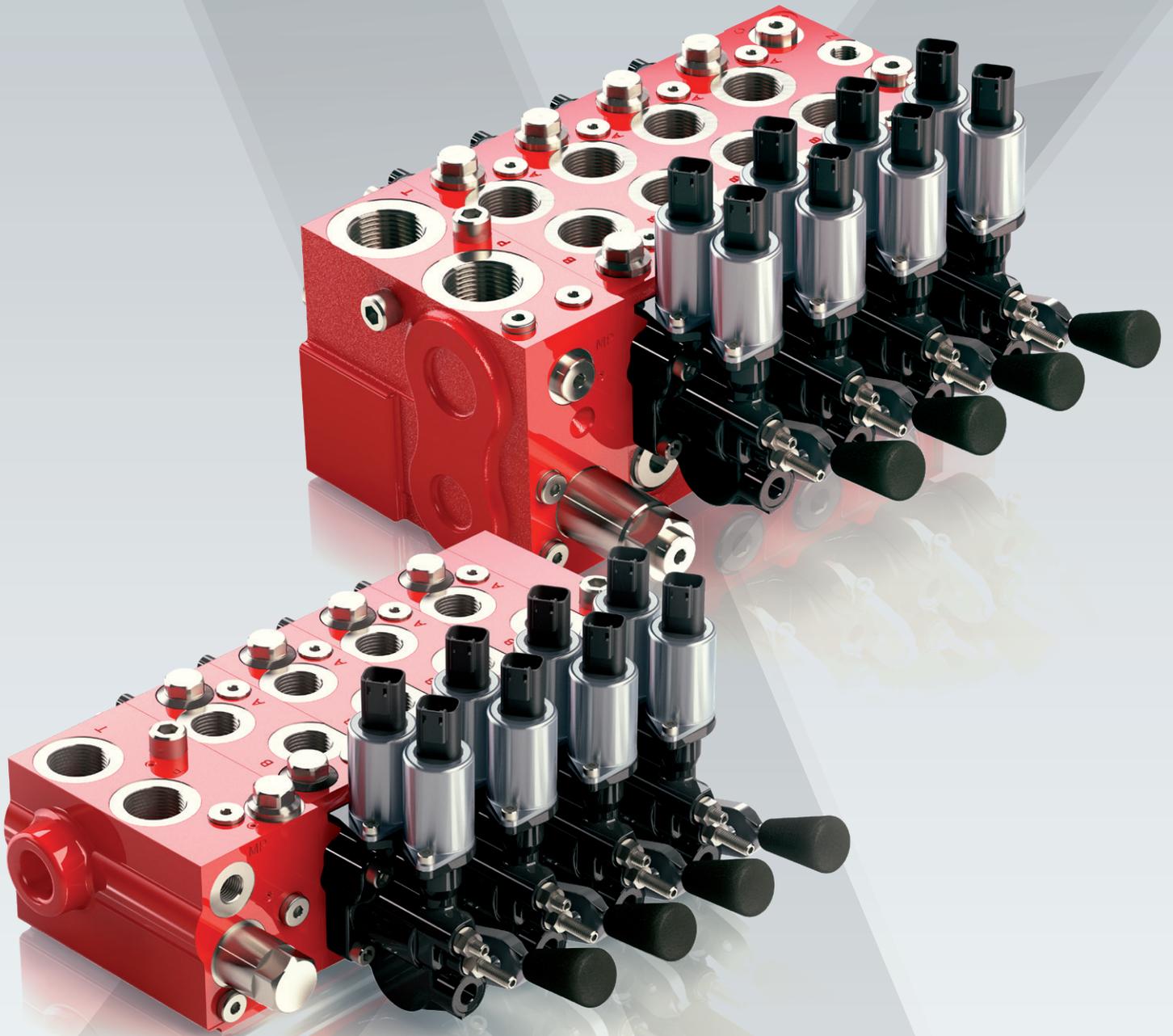
**HYDAC**

**INTERNATIONAL**

**X-Series**

**Load-Sensing Valves**

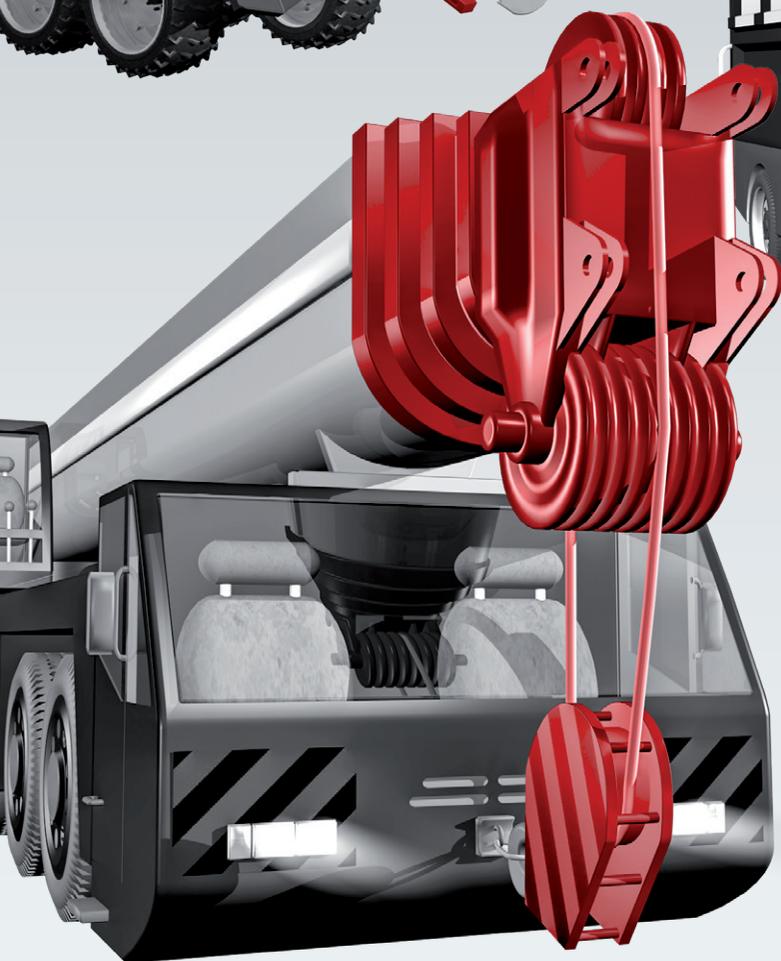
**LX-6 / LX-3**



# HYDAC

## X-Series

### Mobile Valves and Controls



#### Note

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

## X-Series

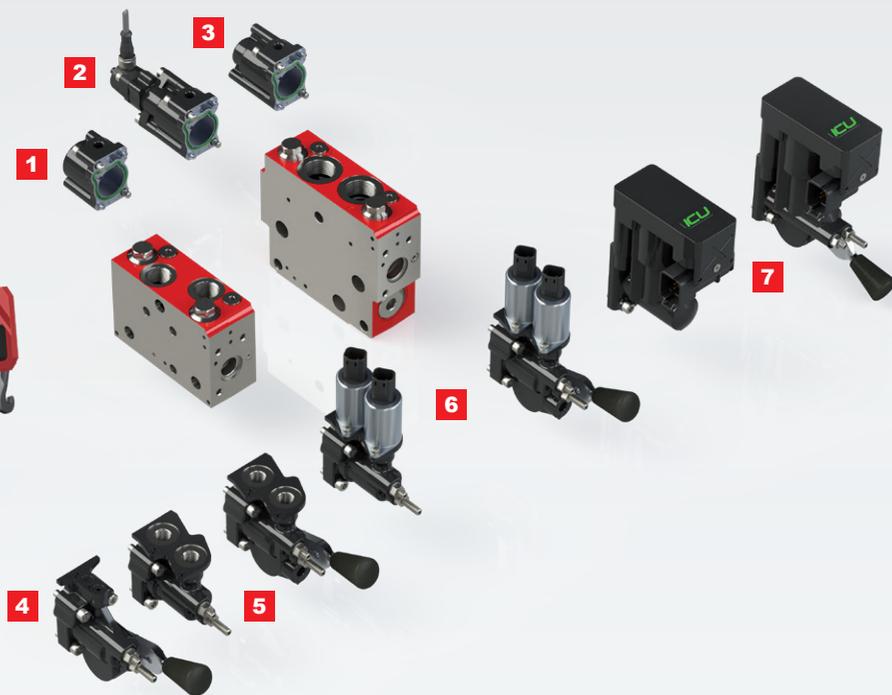
### Mobile Valves and Controls

#### X-Series – the Modular Control Kit

The X-Series is a flexible and unique spool control system. Due to the standardised flange pattern, all controls, from simple manual controls to on-board electronics (e.g. ICU Intelligent Control Unit), are completely interchangeable.

What makes the X-Series unique is that the manual actuation and remote control are on the same valve side and in the same housing.

The advantages lie in the valve's very compact design. In addition, it is also possible to mount a spool position sensor next to the standard spring cap.



- 1 Standard spring cap
- 2 Spring cap with spool position indicator HLS 200
- 3 Spring cap for floating position spool
- 4 Manual control with encapsulated spool ends
- 5 Hydraulic control (with/without manual override)
- 6 Electro-hydraulic control (with/without manual override)
- 7 Electronic control unit (ICU Intelligent Control Unit) via bus system

## X-Series

### Mobile Valves and Controls

#### Load-Sensing Valves

**LX-6**

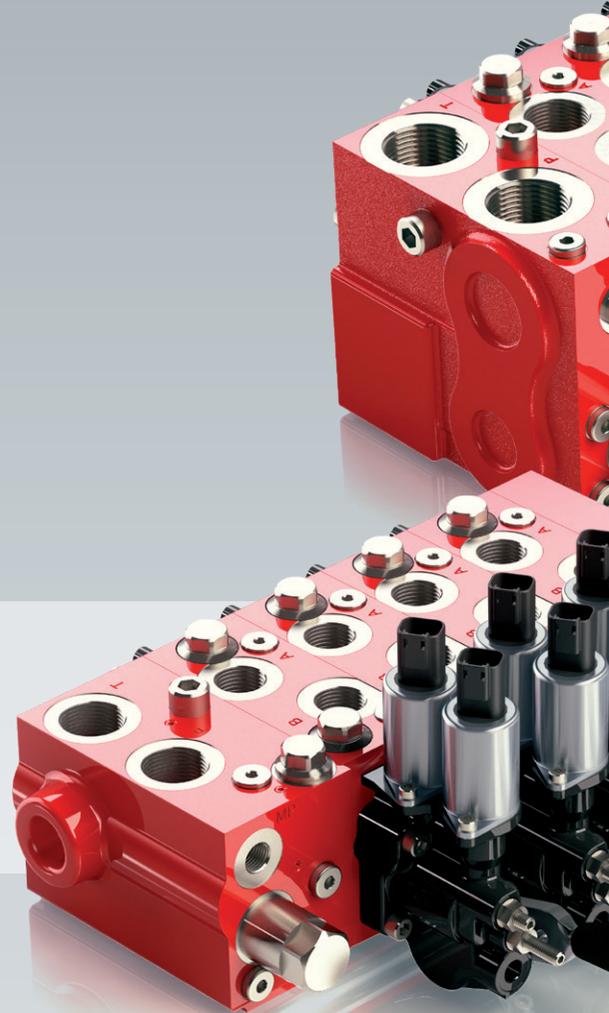
$p_{\text{nominal}} = 350 \text{ bar}$

$Q_{\text{max}} = 180 \text{ l/min}$

**LX-3**

$p_{\text{nominal}} = 350 \text{ bar}$

$Q_{\text{max}} = 100 \text{ l/min}$



#### Description

LX-6 and LX-3 are pre-compensated load-sensing valves for fixed or variable displacement pumps. Up to ten functions can be controlled independently as long as the requested flow does not exceed the max. pump flow.

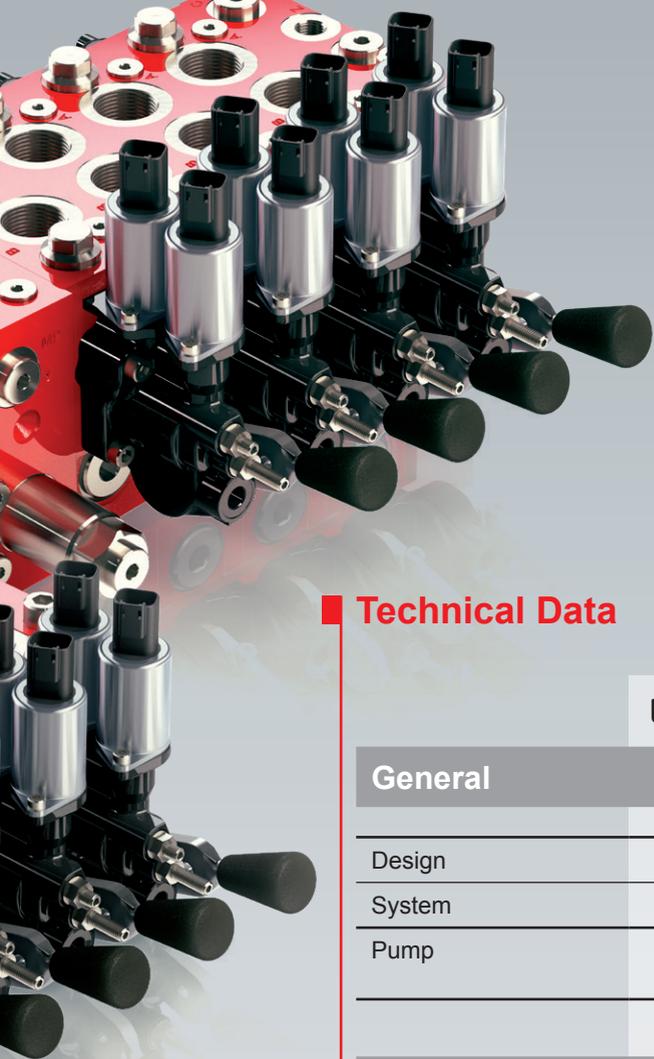
The valves are designed for high accuracy, fine control and energy efficiency. The flexible structure and the compact design makes the LX-6 and LX-3 suitable for a wide range of applications.

#### Applications

Cranes, drill rigs, municipal machines, forestry machines, stationary applications, working platforms...

#### Product Advantages

- Inlet sections with flangeable options.  
Customised solutions on request
- Energy-efficient design of spools and housings
- Spools with 3 or 4 (float) positions,  
different logics and characteristics
- High resolution due to a large spool stroke
- Shock and anticavitation valves for the protection  
of equipment which requires oil
- Mechanical or electro-proportional LS-limitation
- End elements with additional P/T port

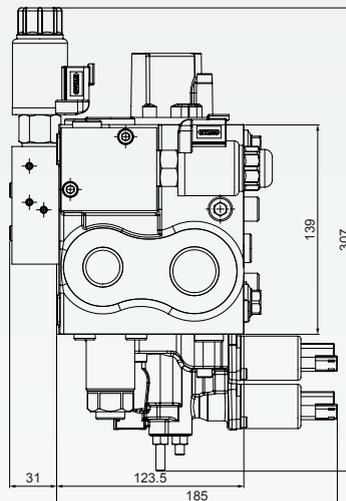
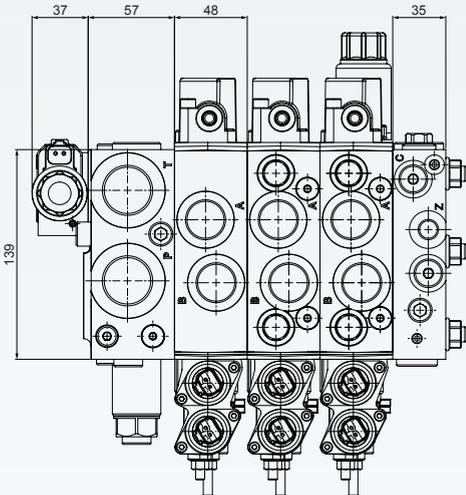
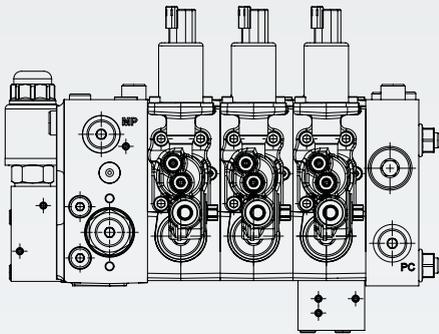
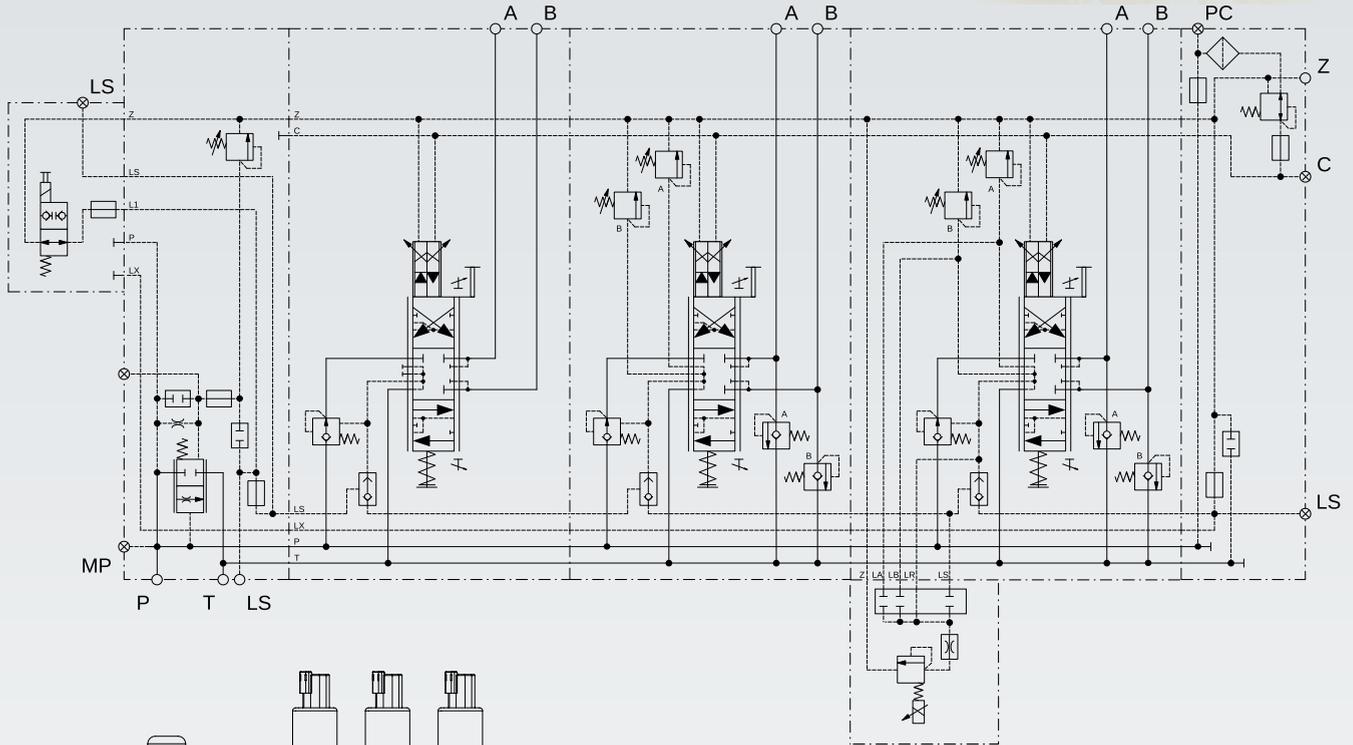
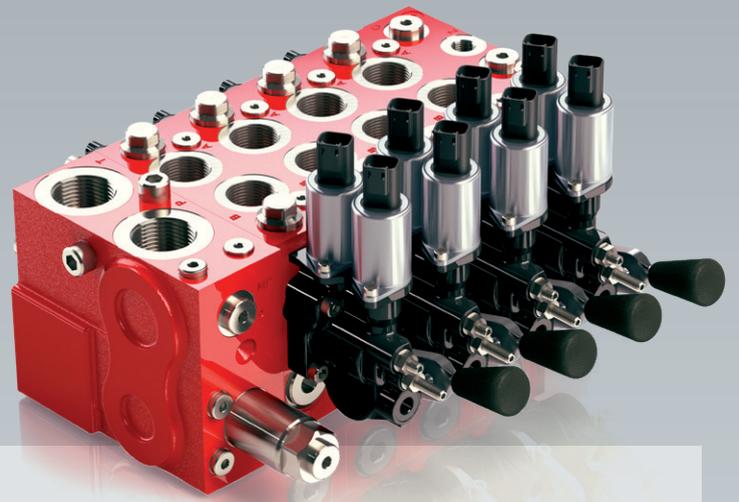


## Technical Data

	LX-6	LX-3
<b>General</b>		
Design	Sectional	
System	Load-Sensing (LS)	
Pump	Fixed or variable displacement pump	
<b>Electrical</b>		
<b>Control signal</b>		
Electro-hydraulic actuation	PWM – 12 V, 0 – 1,500 mA PWM – 24 V, 0 – 750 mA	
Recommended frequency	100 – 150 Hz	
<b>Connectors</b>		
AMP JPT (IP6K6) or Deutsch DT04 (IPX9K)		
<b>Connection Thread</b>		
<b>BSPP or SAE (in brackets)</b>		
Pump P	G1" (16)	G¾" (12)
Tank T	G1" (16)	G¾" (12)
Drain Z	G¼" (6)	G¼" (6)
Port LS	G¼" (6)	G¼" (6)
Port A/B	G¾" (12)	G½" (10)
Ex. control pressure C	G¼" (6)	G¼" (6)
Pump MP	G¼" (6)	G¼" (6)
Pilot pressure X, Y	G¼" (4)	G¼" (4)

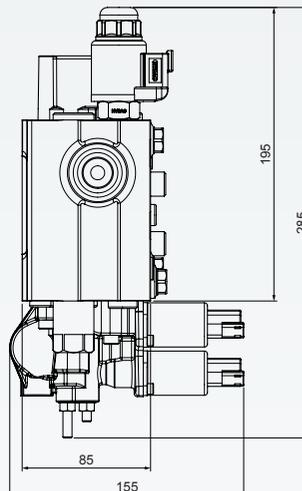
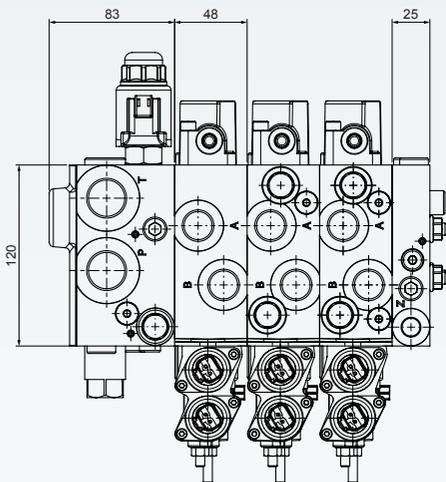
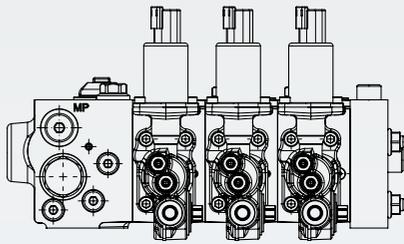
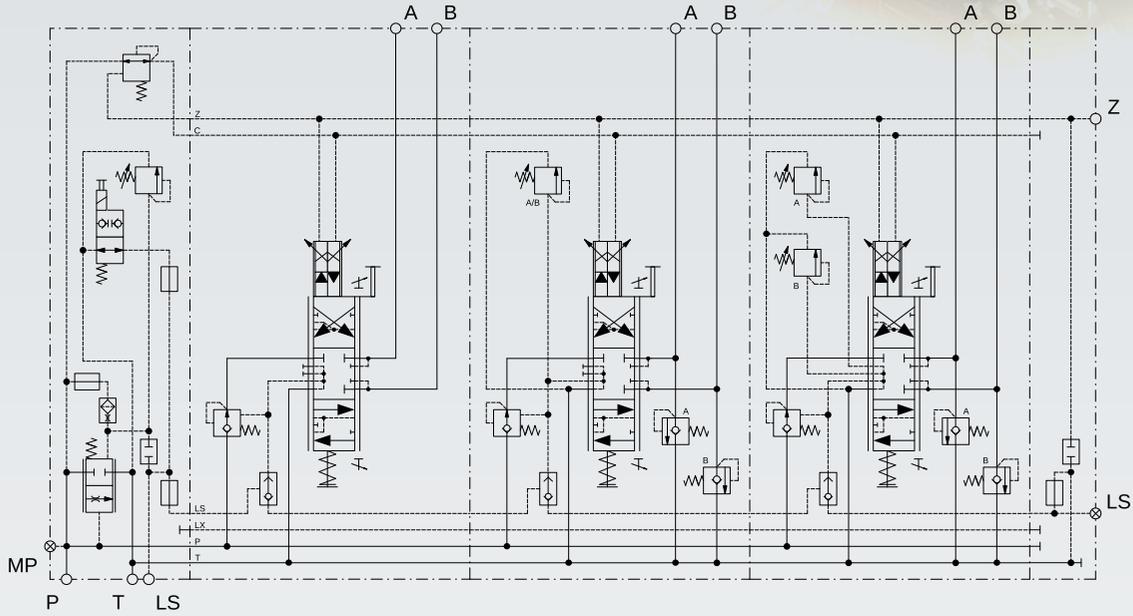
	LX-6	LX-3
<b>Hydraulic</b>		
<b>Flow</b>		
Pump	250 l/min	150 l/min
Q <sub>max</sub> Spool	180 l/min	100 l/min without p-check
<b>Pressure</b>		
Pump max.	350 bar	
A/B port max.	420 bar	
Tank max.	30 bar	
Drain	zero to tank	
<b>LS pressure limitation</b>		
Range	50 – 320 bar	
<b>Pilot pressure</b>		
Hydraulic control max.	20 bar	
Electro-hydraulic control max.	20 bar	
Internal pressure reducing valve	30 bar	
<b>Pilot pressure range</b>		
3-position spool	4.5 – 20 bar	
4-position spool	4.5 – 20 bar	
<b>Hydraulic fluid</b>		
Mineral oil (HLP) according to DIN 51 524, other fluids on request		
Viscosity range	10 – 400 mm <sup>2</sup> /s	
Filtration class acc. ISO 4406 (c)	20/18/15	
Ambient temperature	-20 up to +60 °C	

# Load-Sensing Valve LX-6



Dimensions in mm

# Load-Sensing Valve LX-3



Dimensions in mm



Nordhydraulic Kramfors, Sweden



HYDAC Denmark



HYDAC China



HYDAC USA



HYDAC Italy

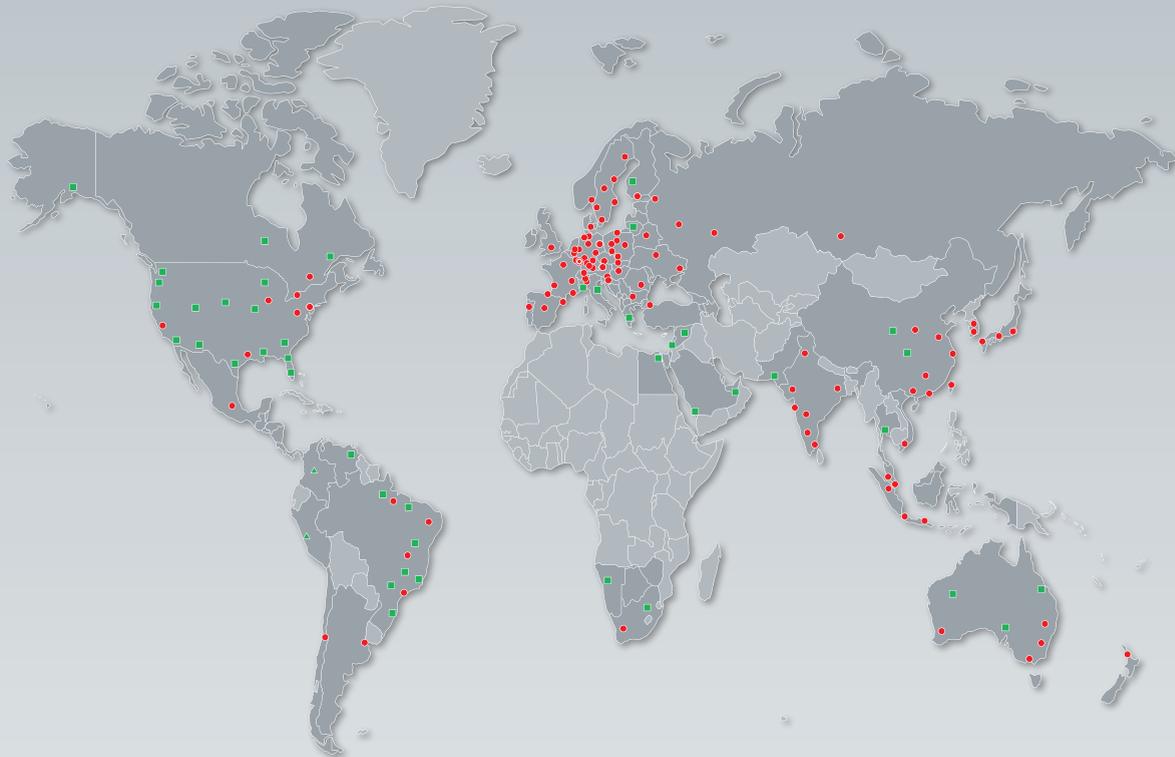


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