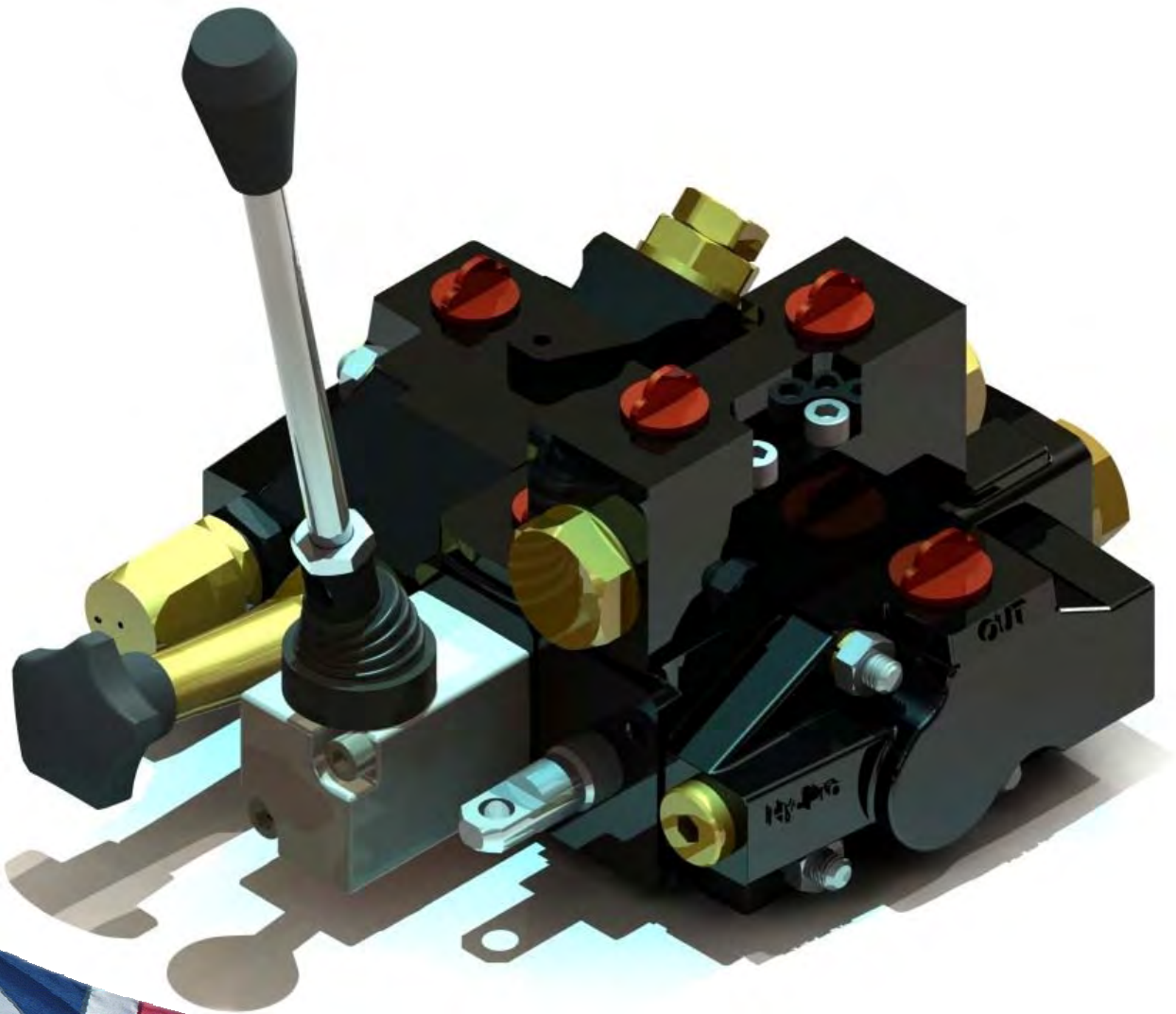


Hy-Pro

motion and control solutions

V4 40 LPM SECTIONAL SPOOL VALVE - VALVE SECTION & END COVERS -



Product manual V4d

V4-40d_GENERAL/Issue 1

Designed & Manufactured
In the UK

V4 40 LPM SECTIONAL SPOOL VALVE

Description

A low profile sectional spool valve, lever, solenoid or cable operated. Suitable for open or closed centre circuits. Spool options for 2, 3 & 4 position valves, all with excellent metering characteristics and with fine metering spools also available. Direct acting or pilot operated main relief valves can be incorporated into the inlet cover. Extensive range of lever options, inter-sections, solenoid sections and ancillaries are available.

The V4-40 G3/8 sectional spool valve replaces our V1-40 range. It has been developed from the popular V5-60 taking advantage of that valves extensive range of spools, levers, ancillary, intersection and options. It offers a 40 lpm, 250 bar rating and has cast iron end-covers and a fully enclosed lever mechanism providing excellent environmental protection. There is a solenoid operated version, the V4-40E, which can be inter-mixed with the manual sections to further increase the control options.

Application

Designed to be used in many applications requiring a compact, rugged sectional spool valve, and suitable for use in the industrial, mobile, marine and agricultural markets. Using the comprehensive range of options, a valve bank can be assembled to control a variety of hydraulic circuits.

Features

- Excellent metering characteristics.
 - Good load holding.
 - Integral load check valve.
 - Open and closed centre assemblies.
 - Direct acting or piloted adjustable relief valves.
 - Robust enclosed lever mechanism.
 - Extensive range of ancillaries and intersections.
 - 100% production testing.
 - Pilot solenoid control option (See Product Manual V4E)
- Fully Interchangeable with the V5-60 range

Compatibility with the V1-40

The V4 range contains many new features and is not interchangeable with the V1-40 which it supersedes.

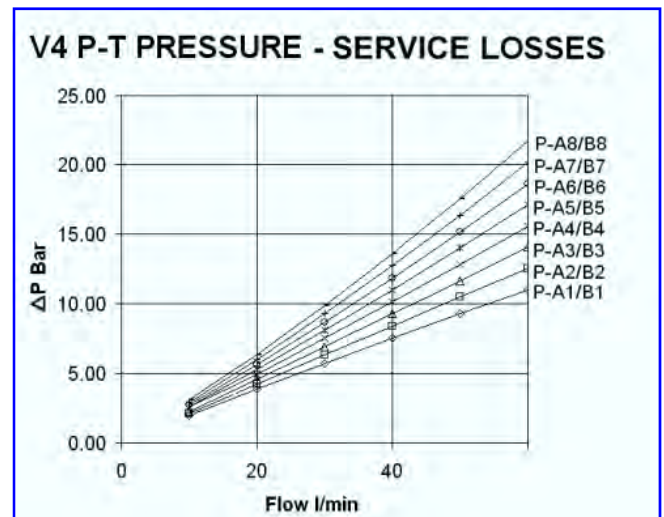
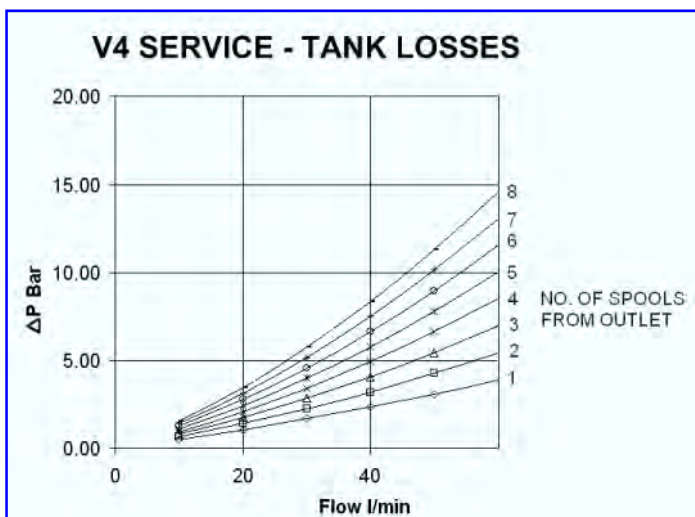
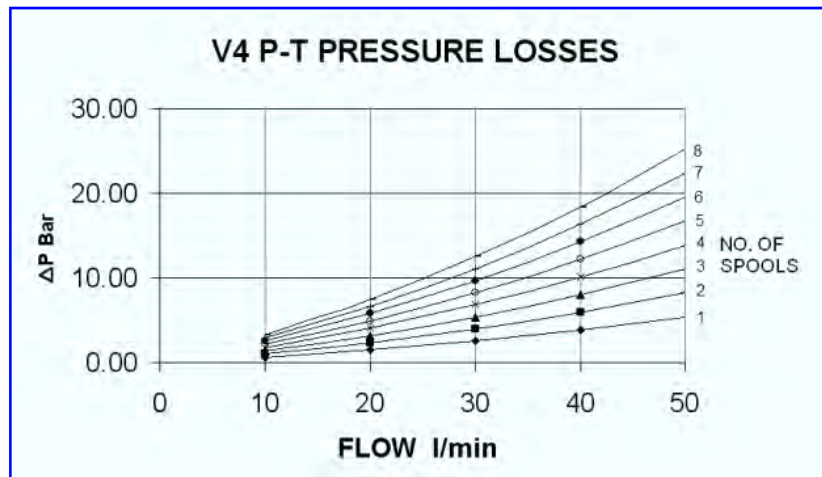
V4 TECHNICAL INFORMATION

Performance

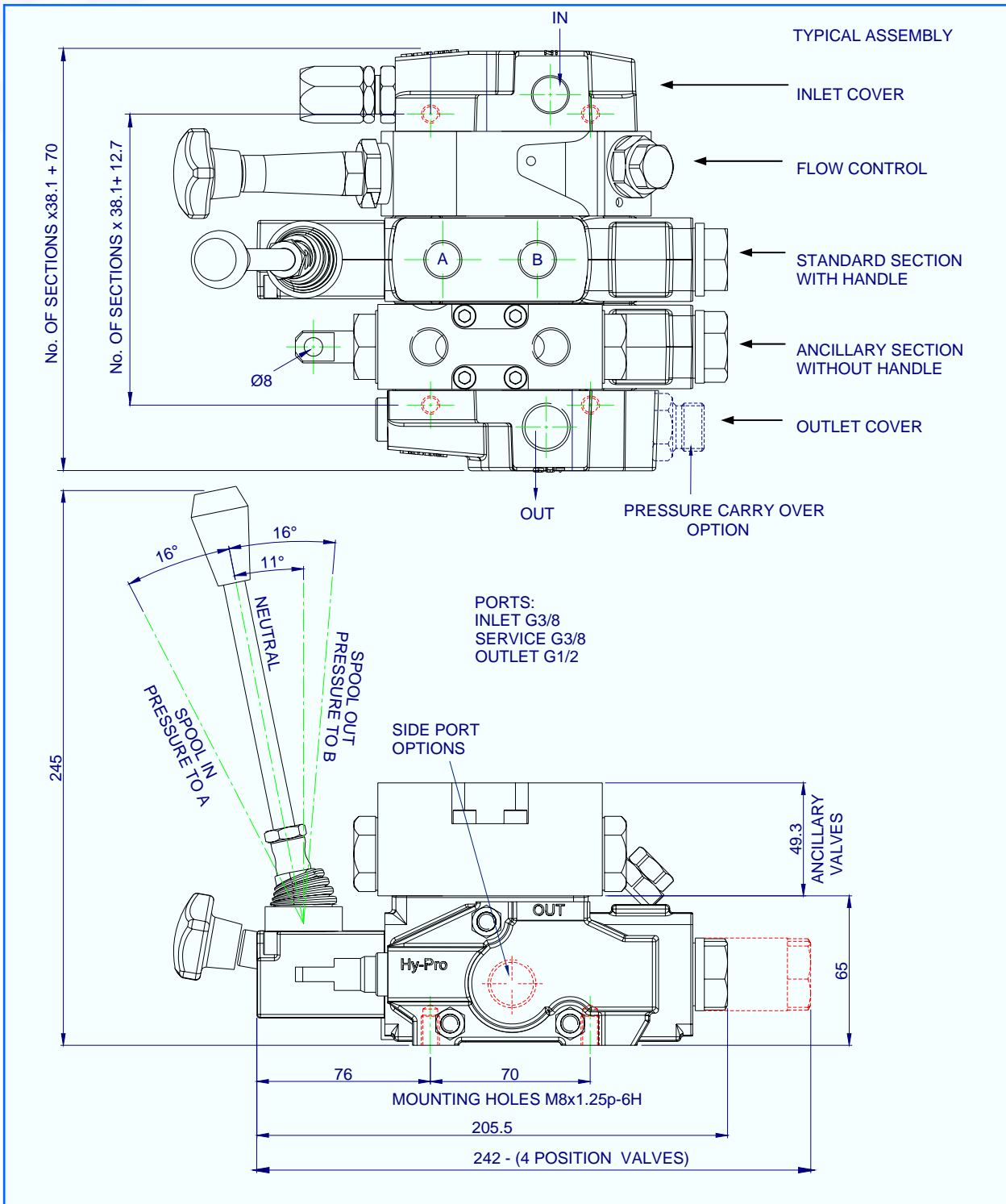
Rated flow	40 l/min
Port size	G3/8
Max. pressure service port	250 bar
Max. pressure inlet port	250 bar
Max. back pressure outlet port	25 bar
Temperature rating minimum	-20°C
Temperature rating maximum	+65°C
Spool leakage at 210 bar @ 20°C	<6cc/min
Spool leakage 4 position	<8cc/min

Recommended Oil

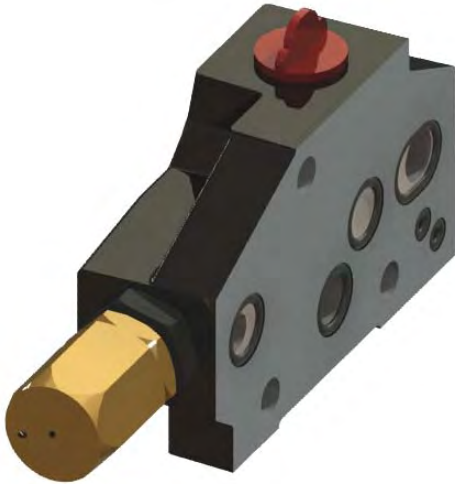
Mineral based hydraulic	ISO VG37
Filtration (minimum)	25 micron



V4 INSTALLATION DETAILS



V4 INLET COVER



SPECIFICATION

Material

Cast Iron BS1452-250

Relief Valve

Adjustable. Pilot Operated or Direct Acting. Pre-set 140bar unless stated

Ports

Top or Side entry
G3/8 standard size
Metric And SAE options available

Options

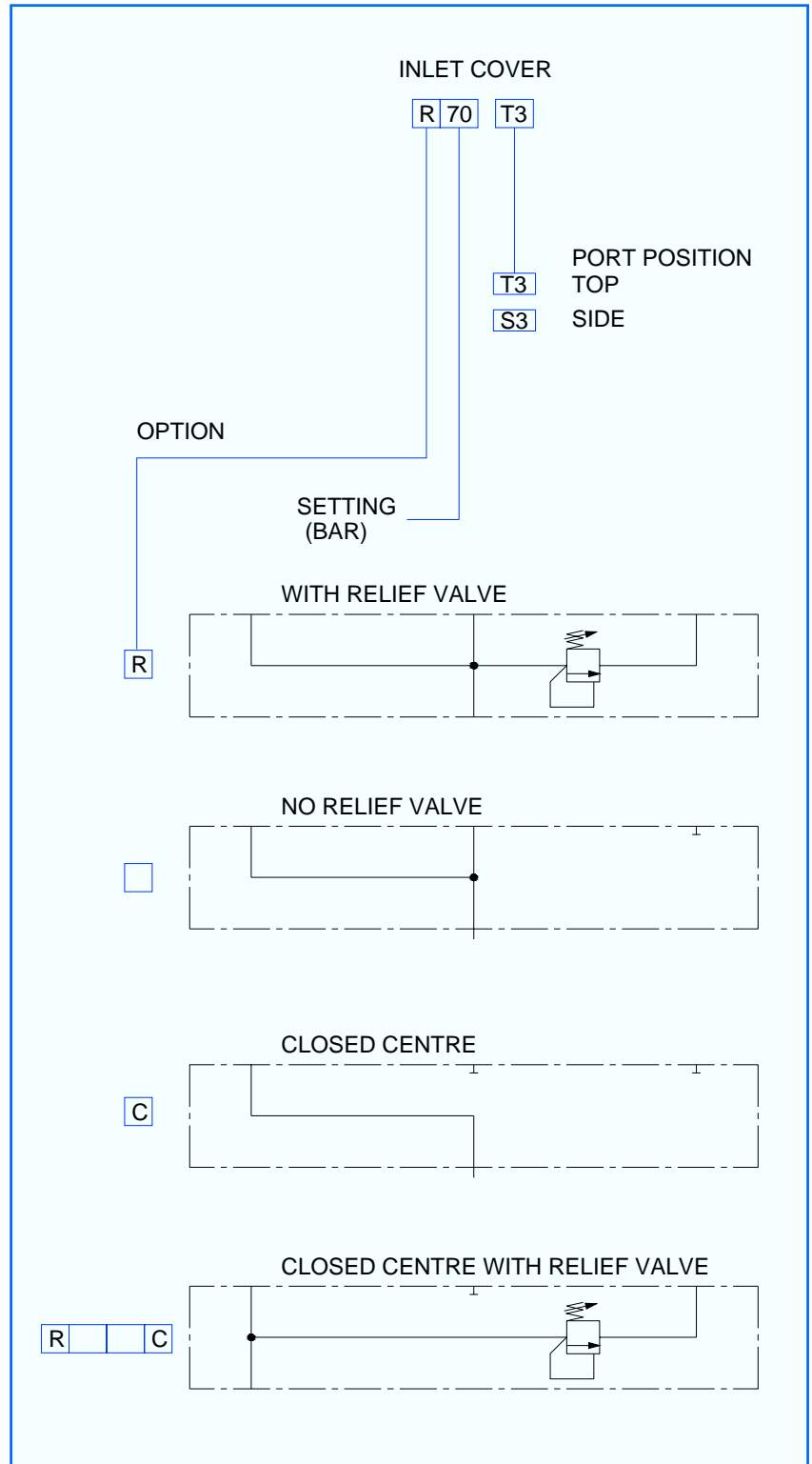
With Relief Valve (standard)
No Relief Valve
Closed Centre

Mounting

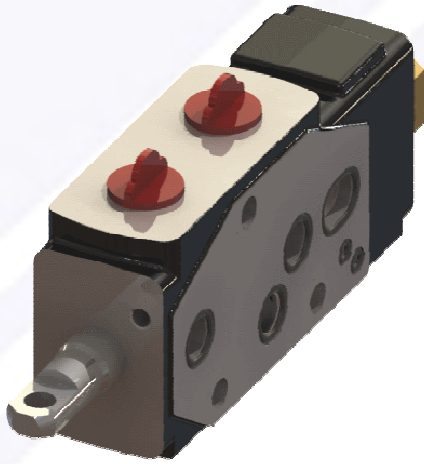
2x M8x1.5p-6H

Weight

0.75kg



V4 VALVE SECTION



SPECIFICATION

Body Material
Cast Iron BS1452-250

Spool
Mild steel. Case hardened and ground

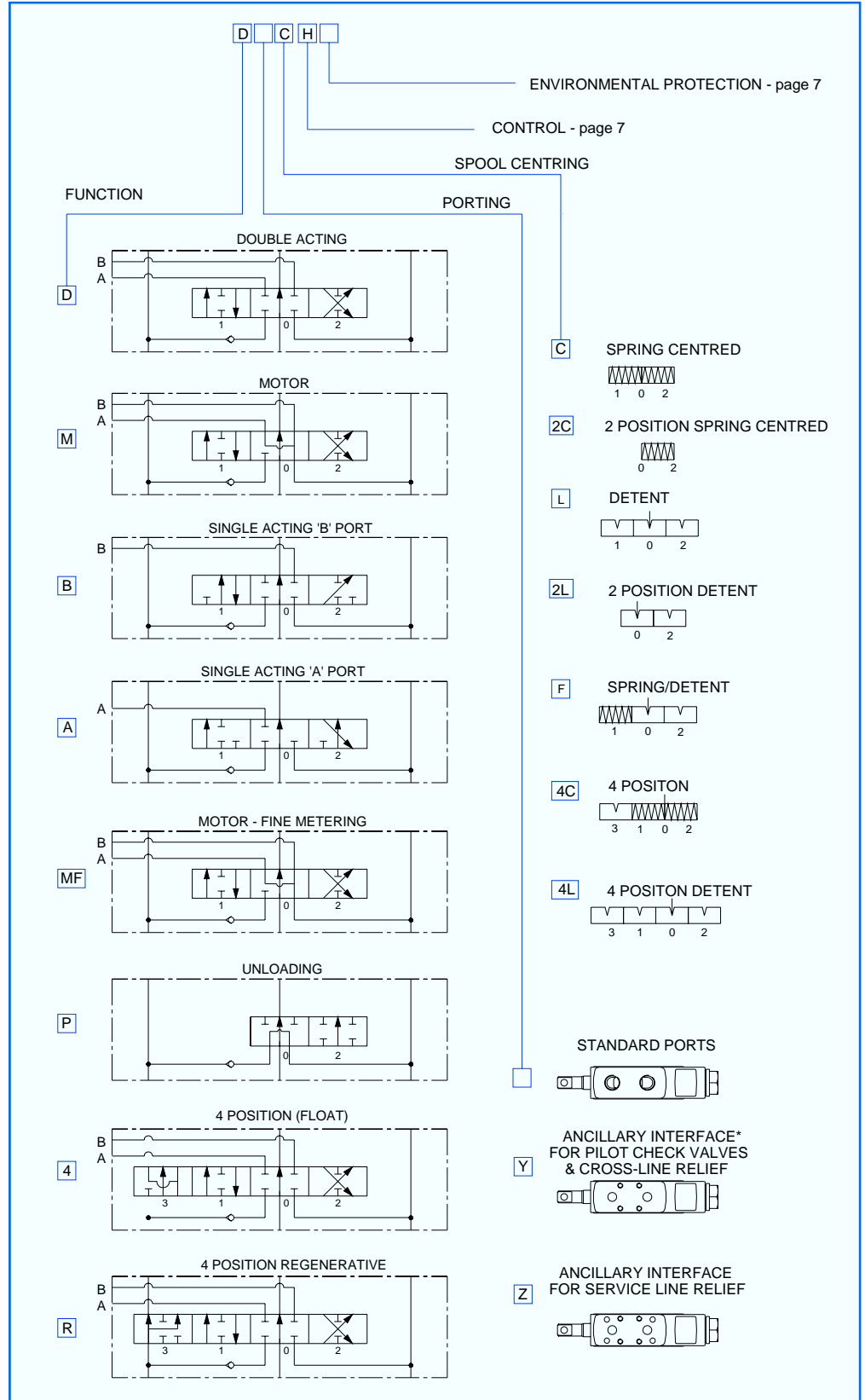
Environmental protection option
Electroless nickel plated spool

Tie Studs
BS970 pt1 1991 605M36 (EN16T)
Torque 13.5Nm

Ports
G3/8 standard size
Metric And SAE
available options.

Ancillary Interface
When ancillary valves are required the port face is denoted:
Y - Pilot Check valves & Cross-line relief *
Z - Service-Line Relief

Weight
2.9kg



V4 STANDARD LEVER



SPECIFICATION

Materials

Housing: Aluminium LM24TF
 Actuator: Steel Nitro-carburised
 Pivot: Steel Hardened
 Fasteners: Deltatone

Fixing

2x M6 Cap screw (Torque - 10lbs/ft)

Knob

Black standard, Red, Blue, Green,
 Red, Yellow and Ident' type available

Options

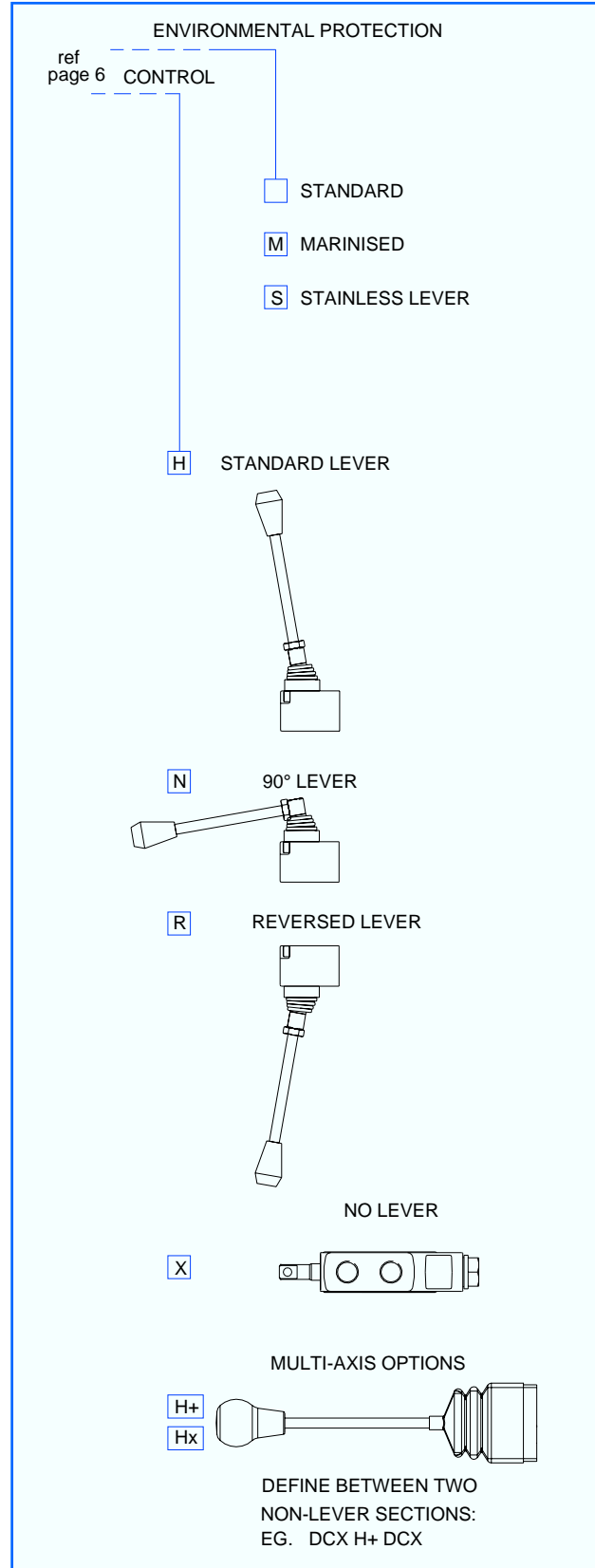
Standard or Multi-axis
 Aux cable attachment

Environmental protection option

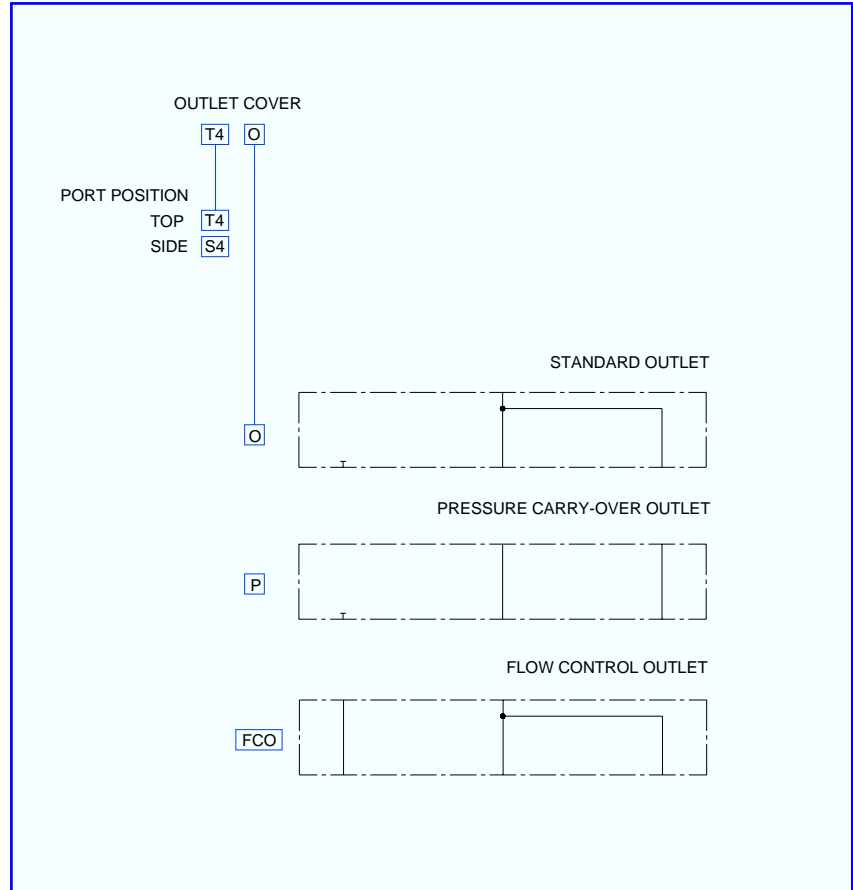
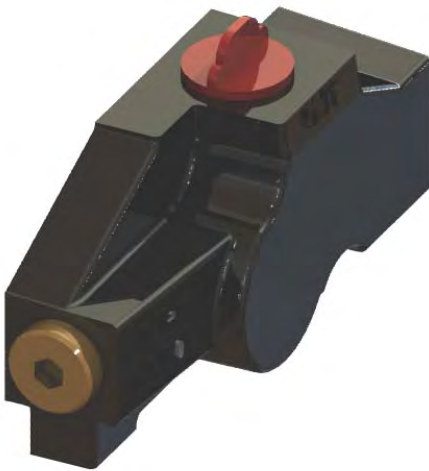
Housing: Anodised
 Lever: Stainless steel 304

Weight

0.13kg



V4 OUTLET COVERS



SPECIFICATION

Material

Cast Iron BS1452-250

Ports

Top or Side entry
G1/2 standard size
Metric And SAE options available

Mounting

2x M8x1.5p-6H

Weight

0.8kg

Options

Standard Outlet (Tank port)
Pressure Carry-Over
(Tank port plus a Pressure port to feed further valves in the circuit)
Flow Control Type
(used to convert sectional FC to Line-mounted operation)