

Spool position sensors

8MG type



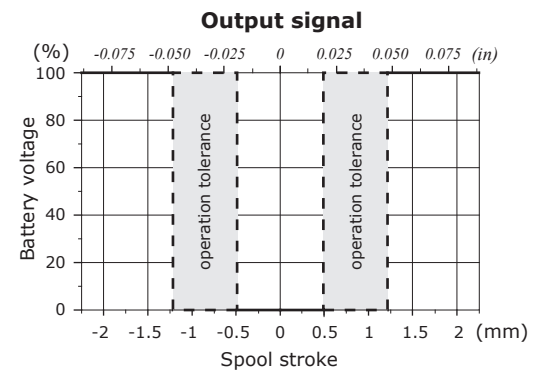
Precision ball switch for spool direction and neutral position detection, with NO and NC circuits in single and redundant configuration. This sensor is available on wide ranges of valves.

Main features are:

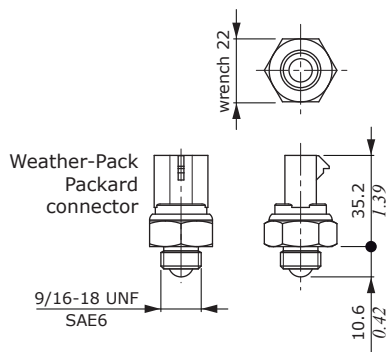
- wide output current range (10 mA to 5A);
- heavy duty construction, corrosion resistant;
- long mechanical life (10^6 cycles).

Working conditions

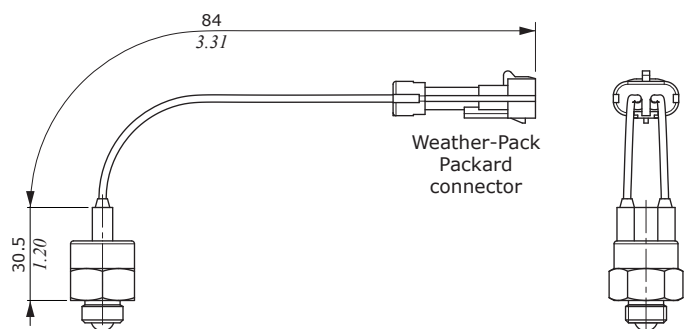
Voltage rating	from 5 to 24 VDC	
Current rating	from 10 mA to 5A	
Electrical life	5x10 ⁵	
Mechanical life	10 ⁶	
Connector type	integrated	Packard Weather-Pack
	with flying leads	Packard Weather-Pack Deutsch DT series AMP Superseal
Weather protection	IP67	
Working temperature	from -40°C to 120°C (from -40°F to 248°F)	



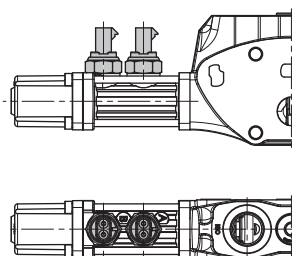
Sensor with integrated connector



Sensor with connector and flying leads



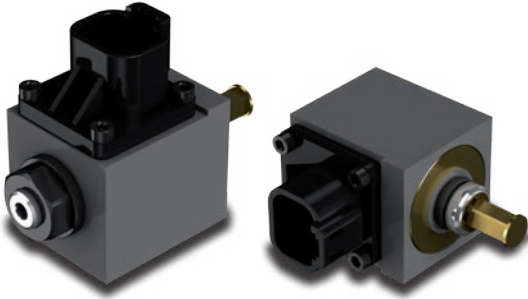
Example of sensor in 8MG control with SD8 working section



IMPORTANT: The sensor can be ordered exclusively through the controls assembled on the monoblock and sectional valves. These controls, in different configurations, are available on the full range of Walvoil directional valves.

Spool position sensors

SPSD type



The SPSP position sensor converts the spool movements into an electric digital signal.

Main features are:

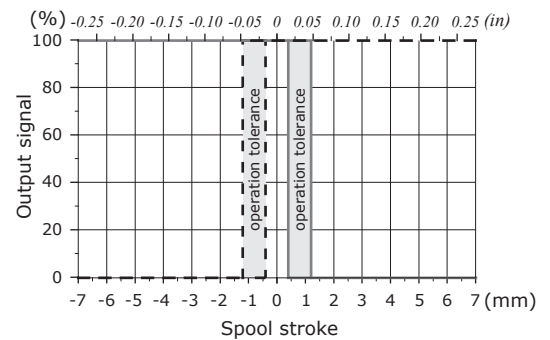
- contactless technology guarantees a long mechanical life;
- available for the complete range of valves.

Typical applications:

- cranes
- telehandlers
- aerial platforms
- front-end loaders (mid-mount)

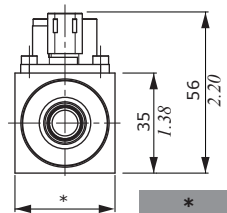
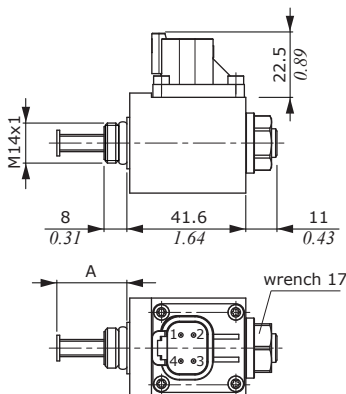
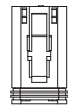
Working conditions	SPSD	SPSD-S
Voltage supply	from 9 to 32 VDC	
Current absorption	< 10 mA (no load)	
Mechanical life	3x10 ⁶	
Connector type	DT04-4P Deutsch	
Weather protection	IP67 / IP69K	
Working temperature	from -40°C to 105°C (from -40°F to 221°F)	
Working pressure	350 bar (5100 psi)	
Max. electrical stroke	±10 mm (±0.39 in)	±5.5 mm (±0.22 in)
Max. mechanical stroke	±10 mm (±0.39 in)	±5.5 mm (±0.22 in)
Output signal	type	PNP
	max. current	6 mA
EMC compatibility	ISO 13766 / ISO 14982	
Mechanical vibrations, shock, bumps	IEC 68-2-6,-27,-29	

Output signal (SPSD example) vs. spool stroke



Mating connector

Code	Type
5CON140072	DT06-4S Deutsch



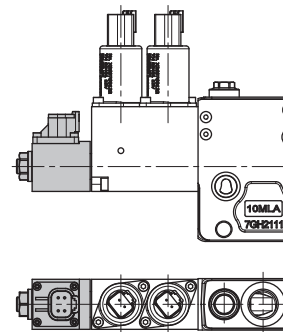
*	mm	in
SPSD	35	1.38
SPSD-S	31	1.22

A = feeler neutral position.
As for the sensor model, the dimension can be 16 or 21.5 mm (0.63 or 0.85 in)

Connector PIN-OUT

Pin	Functions
1	Out A
2	GND
3	VB+
4	Out B

Example of sensor in 8EZ control with DPX100 working section

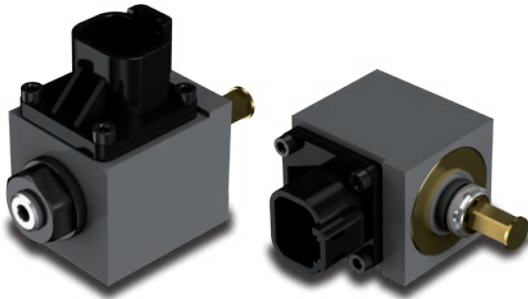


IMPORTANT: The sensor can be ordered exclusively through the controls assembled on the monoblock and sectional valves.

These controls, in different configurations, are available on the full range of Walvoil directional valves.

Spool position sensors

SPSL type



The SPSL position sensor converts the spool movements into a voltage linear signal.

Main features are:

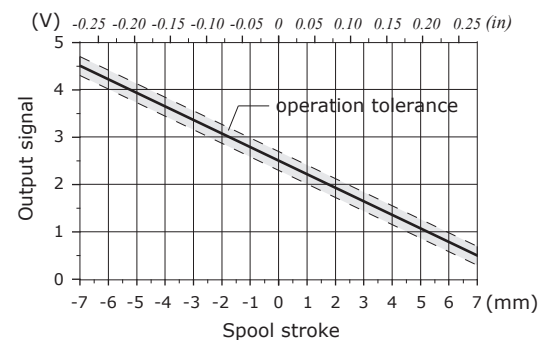
- contactless technology guarantees a long mechanical life;
- available for the complete range of valves.

Typical applications:

- cranes
- telehandlers
- aerial platforms
- front-end loaders (mid-mount)

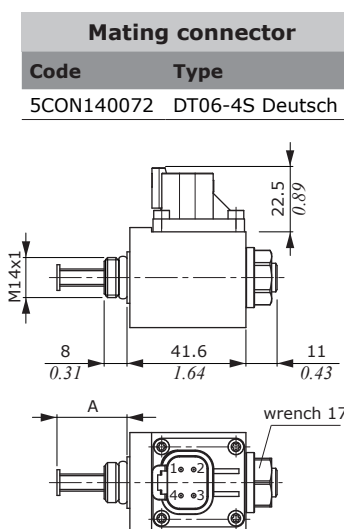
Working conditions	SPSL	SPSL-S
Voltage supply	from 9 to 32 VDC or 5 VDC	
Current absorption	< 10 mA (no load)	
Mechanical life	3x10 ⁶	
Connector type	DT04-4P Deutsch	
Weather protection	IP67 / IP69K	
Working temperature	from -40°C to 105°C (from -40°F to 221°F)	
Working pressure	350 bar (5100 psi)	
Max. electrical stroke	±10 mm (±0.39 in)	±5.5 mm (±0.22 in)
Max. mechanical stroke	±10 mm (±0.39 in)	±5.5 mm (±0.22 in)
Output signal	range	from 0.5 to 4.5 V
	linearity	± 5%
spool in neutral	2.5 ± 0.2 V	
max. current	1 mA	
EMC compatibility	ISO 13766 / ISO 14982	
Mechanical vibrations, shock, bumps	IEC 68-2-6,-27,-29	

Output signal (SPSL example) vs. spool stroke

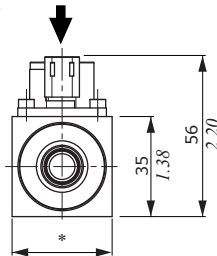
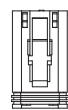


Mating connector

Code	Type
5CON140072	DT06-4S Deutsch



A = feeler neutral position.
As for the sensor model, the dimension can be 16 or 21.5 mm (0.63 or 0.85 in)

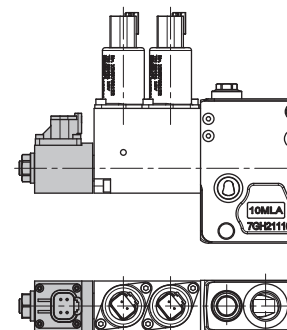


*	mm	in
SPSL	35	1.38
SPSL-S	31	1.22

Connector PIN-OUT

Pin	Functions	
	5V supply	8-32V supply
1	+ 5V	signal OUT
2	not connected	GND
3	GND	VB+
4	signal OUT	not connected

Example of sensor in 8EZ control with DPX100 working section



IMPORTANT: The sensor can be ordered exclusively through the controls assembled on the monoblock and sectional valves.

These controls, in different configurations, are available on the full range of Walvoil directional valves.