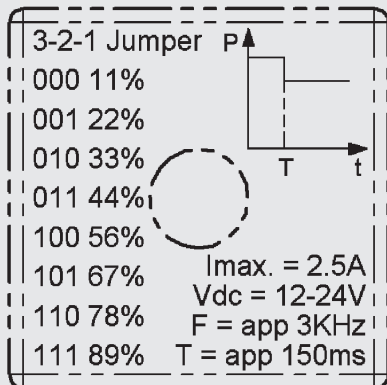




Power Reduction Plug for Solenoid Coils with DIN Connector LRS

FUNCTION



The power reduction plug LRS is designed to reduce the power on solenoid coils in order to save electricity. It contains electronics which provide the full power only required when switching on the coil. By means of a PWM signal, the electronics then reduce the power to the level needed to maintain the position. The PWM signal delivers an average current over a series of switch-off times.

The plug is advantageous particularly for battery-operated mobile machines, but its energy-saving potential may of course be exploited anywhere.

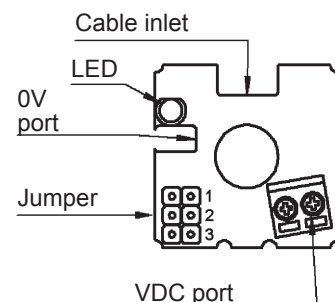
FEATURES

- Reduced coil temperature due to lower energization
- Longer coil service life due to reduced load
- Energy and cost savings due to the energy requirement being reduced by up to 20 to 40 %
- Less radiated heat
- Compatible with all of the solenoid valves with a DC coil offered by HYDAC (except mini valves)

SPECIFICATIONS

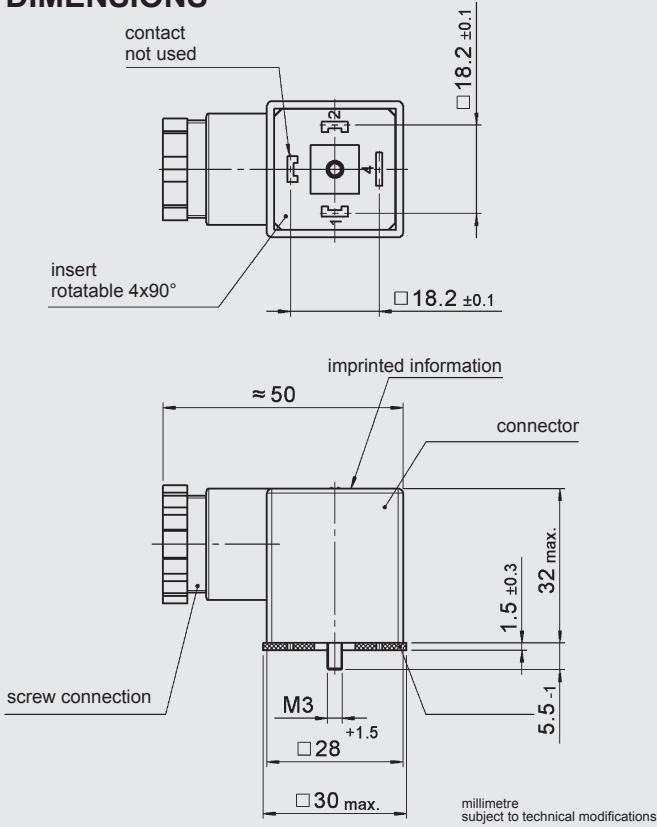
Nominal voltage:	12 / 24 Volt DC
Maximum current:	2.5 Ampere (with no reduction)
Holding time at 100%:	150 – 175 ms
Switching frequency:	3.1 KHz at 24 V
On-off ratio:	8 fixed variations
Type:	EN 175301-803 Form A (Z4 Hirschmann connector), ISO 4400
Materials:	Housing: polyethylene, transparent Seals: NBR (standard)
Weight:	0.08 kg
LED display:	Yes
Protection against reverse polarity / overvoltage:	No
Seal:	With onion grommets or supplied sealing rings for cables with diameter 5-11mm

Pin connections:



Application: For solenoid coils with 12/24 V DC and DIN connector

DIMENSIONS



Setting the holding power:

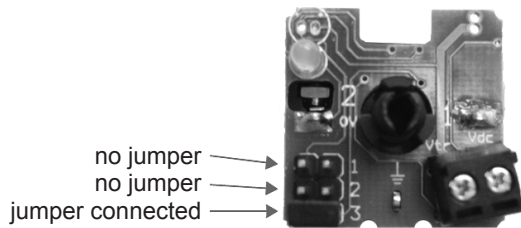
First take the valve type from the table. The bit pattern of the jumper (jumper code) must then be transmitted to the LRS.

3-2-1 Jumper PA	
000	11%
001	22%
010	33%
011	44%
100	56%
101	67%
110	78%
111	89%

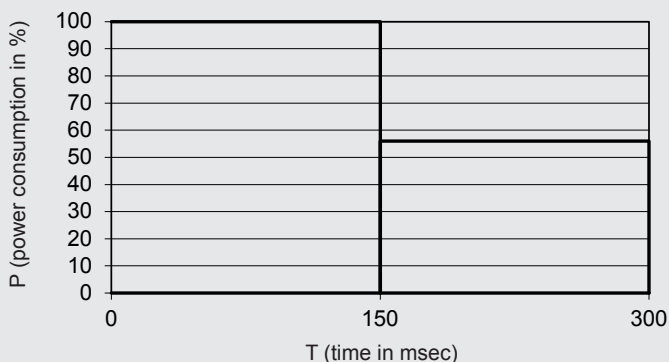
$I_{max} = 2.5A$
 $V_{dc} = 12-24V$
 $F = \text{app } 3KHz$
 $T = \text{app } 150ms$

Example with power consumption of the coil (at room temperature)

Power consumption = current rating x nominal voltage
 Jumper code 100 corresponds to reducing the electrical holding power to 56% of the electrical power consumption.
 In the case of COIL 24DG-40-1836, around 19 Watt power consumption is reduced to 10.65 Watt holding power in this example.



PERFORMANCE



MODEL CODE

LRS - KPL - Z4 - TR - 2pol - LED

Basic model

Power reduction plug

Type

KPL = complete with seal and screw connection

Body and ports

Z4 = connection to EN 175301-803

Housing material

TR = polyethylene, transparent

No. of poles

LED display

Standard models

Model code	Part No.
LRS KPL Z4 TR 2POL LED	3689354

Jumper codes

(suggestions for the main valves)

Valve type	Jumper code	Valve type	Jumper code
WK07L	100	WKM08140EB	101
WK08V	101	WKM10130C	010
WK08W	010	WKM10130D	011
WK08A	011	WS08C	011
WK08C	011	WS08D	100
WK08D	011	WS08V	011
WK08R	011	WS08W	011
WK08X	100	WS08Y	010
WK08Y	101	WS08Z	001
WK08Z	011	WS10W	010
WK081V	100	WS10Z	010
WK081W	010	WS12Y/R	101
WK10A	100	WS12Z/R	010
WK10C	010	WS16Y/R	010
WK10D	100	WS16Z/R	010
WK10E	010	WSEC08130	011
WK10F	011	WSM08130C	011
WK10G	011	WSM08130D	100
WK10H	100	WSM12120V	001
WK10K	100	WSM06020W	010
WK10L	100	WSM12120W	001
WK10N	100	WSM12120Y	101
WK10P	010	WSM12120YR	100
WK10R	011	WSM12120Z	010
WK10S	010	WSM12120ZR	010
WK10T	010	WSM06020V	001
WK10V	100	WSM06020Y	010
WK10W	010	WSM06020Z	001
WK10X	101	WSM10120Y	101
WK10Y	010	WSM10120YR	101
WK10Z	011	WSM10120Z	010
WK10J	011	WSM10120R	010
WKM08130C	011	WSM10120W	011
WKM08130D	100	WSM16520V	100
WKM08130L	101	WSM16520W	011
WKM08140Y	011	WK08120V	100
WKM08140X	100	WS08ZR	001

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.

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