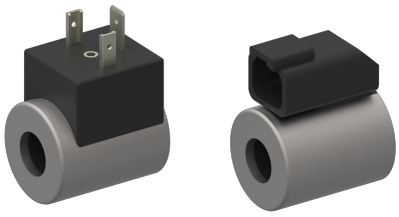
Valve accessory
Solenoid coil

Type series: COIL D30-131...

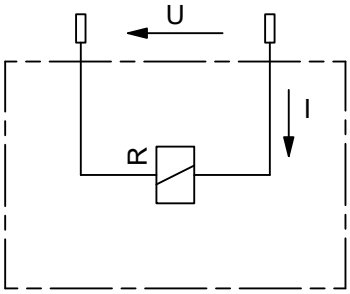


- Compact construction
- Power consumption 20 W
- Optionally with protection diode
- For core tube 13mm / 0.51"
- Protection class IP65 / IP67 / IP69K
- Metal sheathing with zinc-nickel coating according to DIN EN ISO 19598

Description

The slip-on coils can be replaced without opening the hydraulic envelope and can be positioned at any angle through 360°. When combined with the appropriate core tube, the coils produce an on/off solenoid function or a proportional solenoid function. Thanks to the variety of plug connection types and voltages, these coils are suitable for widespread use in mobile and industrial applications. The metal-coated coil body and the plug base are made of glass fiber-reinforced thermoplastic

Symbol



for more symbols refer to "Additional symbols"

Technical data

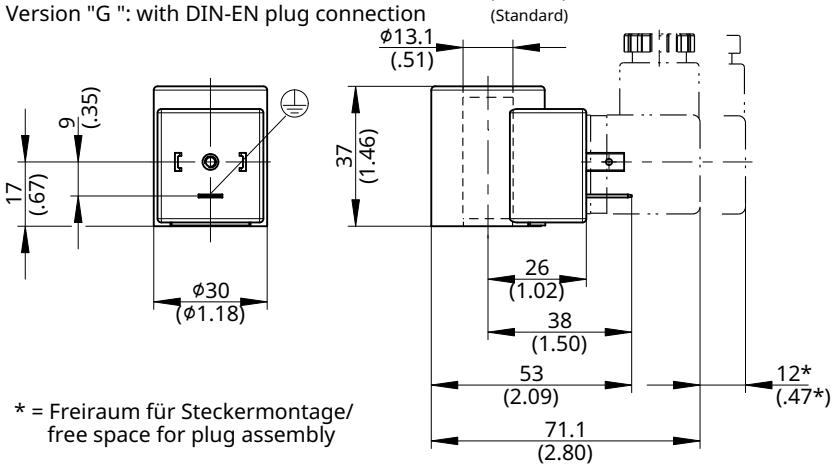
General characteristics	Description, value, unit
Function group	Valve accessory
Function	Solenoid coil
Mounting attitude	see chapter "Installation information"
Weight	0.12...0.15 kg

Electric characteristics	Description, value, unit
Actuator type	solenoid coil
Solenoid coils type	D30-131
Supply voltage DC	12/24 V DC
Supply voltage tolerance	± 10 %
Nominal power consumption	20 W
Switching time	see valve data sheet
Relative duty cycle	100 %
Minimum ambient temperature	- 30 °C
Maximum ambient temperature	+ 50 °C
Coil resistance R	See table “Supply voltage”
Electrical connection coil	several connection types available, see ordering code
Protection class solenoid coil to ISO 20 653 / EN 60 529	IP 65 / IP 67 / IP 69K, see “Ordering code” (with appropriate mating connector and proper fitting and sealing)

NOTE!
For further data on the protection diode, see chapter “Protection diode characteristics”.

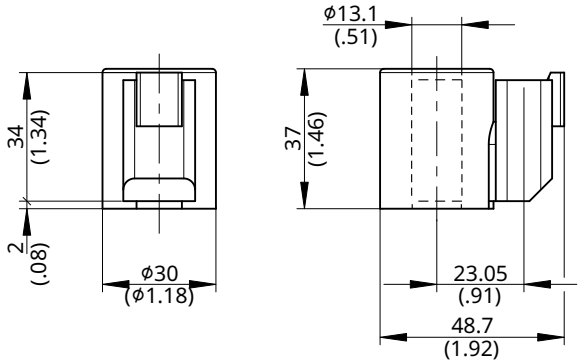
Dimensions and sectional view

Version "G ": mit DIN-EN Steckeranaschluss (Standard)
Version "G ": with DIN-EN plug connection (Standard)

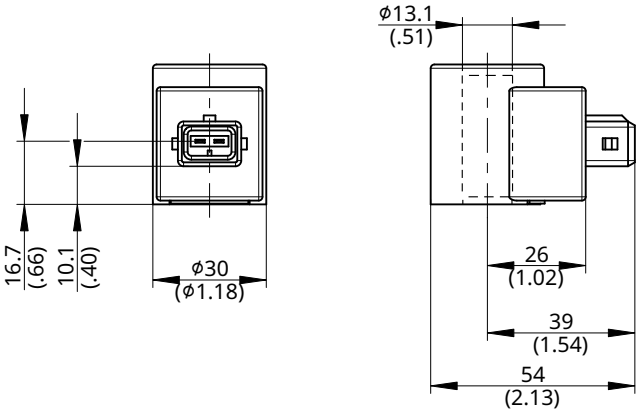


* = Freiraum für Steckermontage/
free space for plug assembly

Version "T / TR": mit Deutsch-Steckeranaschluss DT04-2P
Version "T / TR": with Deutsch DT04-2P plug connection



Version "J / JR": mit Junior-Timer-Radialsteckeranschluss
Version "J / JR": with Junior Timer radial plug connection



Installation information

ATTENTION!
Due to the risk of overheating, the solenoid coil may only be put into operation when properly mounted on a valve.

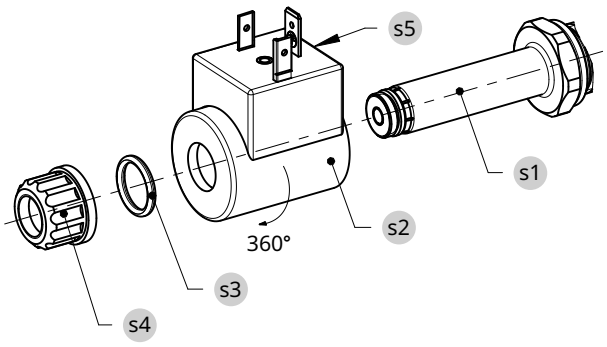
NOTE!
When used with adjacent proportional valves, the distance must be observed. An influence on the proportional valve cannot be ruled out.

Supply voltage: 12 VDC		20 W
Coil resistance R	cold value at + 20 °C cold value at - 30 °C max. warm value	7,5 Ω 6,0 Ω 12,0 Ω
Inductance Measured at the core tube, non-operated, at 0.1 mA (rms) / 1 kHz	parallel 120 Hz serial 1000 Hz	22,0 mH 6,4 mH

Supply voltage: 24 VDC		20 W
Coil resistance R	cold value at + 20 °C cold value at - 30 °C max. warm value	29,0 Ω 23,5 Ω 46,0 Ω
Inductance Measured at the core tube, non-operated, at 0.1 mA (rms) / 1 kHz	parallel 120 Hz serial 1000 Hz	86,0 mH 25,5 mH

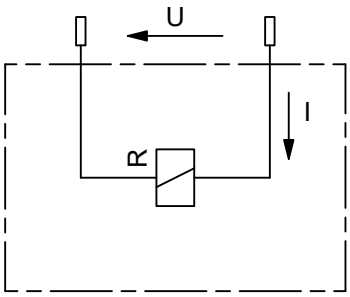
Protection diode characteristics	Description, value, unit
Bipolar protection diode	12 VDC: P6KE33CA 24 VDC: P6KE56CA
Nominal breakdown voltage of the bipolar protection diode	12 VDC: 33 V 24 VDC: 56 V
Max. allowed voltage peaks for 1 second and relative duty cycle ED = 0.4 %	12 VDC: 25 V 24 VDC: 43 V

Installation instructions

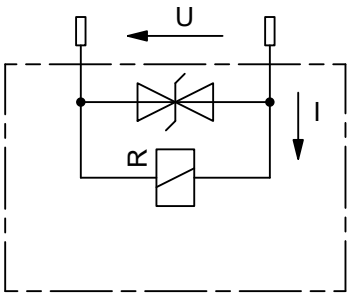


1. Depending on the application, it is important to observe the orientation of the plug base. s5 (See valve data sheet)
2. Attach the solenoid coil s2 to the solenoid tube of the valve s1
3. Fit the seal. s3 (Size of the seal according to the valve data sheet)
4. Align solenoid coil s2 and install retaining nut s4 with MA = 1.0±0.2 Nm / 0.7±0.2 ft-lb.

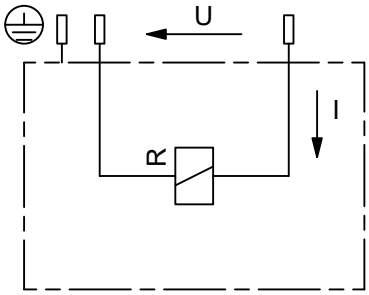
Additional symbols



2-pole



2-pole, with protection diode



3-pole 2 P+E (DIN EN 175301-803)

IMPORTANT!
The earth connection is marked with ⏚.

Ordering code

Ex. | COIL | D30 | - | 131 | 24 | D | G | _ | 20W

COIL	=	coil		
D30	=	outside dimension Ø30 (1.18“)		
131	=	nominal diameter 13.1 mm (0.51“)		
24	=	voltage 24 V **(standard)**		
12	=	voltage 12 V		
D	=	current DC		
G	=	DIN EN 175301-803 connection	3-pole 2 P+E **(standard)**	(IP 65)
J	=	Junior Timer plug connection	2-pole radial	(IP 65)
JR	=	Junior Timer plug connection	2-pole radial, with protection diode	(IP 65)
T	=	Deutsch plug connection DT04-2P	2-pole axial	(IP 67/69K)
TR	=	Deutsch plug connection DT04-2P	2-pole axial, with protection diode	(IP 67/69K)
(blank)	=	connection without mating plug **(standard)**		
Q	=	only connection “G“ with mating plug		
20W	=	Nominal power consumption, 20 W		

IMPORTANT!
Not every combination of voltage values and plug connections available.

info.ch@bucherhydraulics.com **www.bucherhydraulics.com**