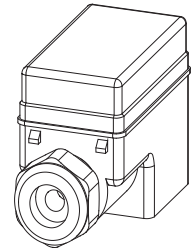


Power reducing plug P03

- After energising solenoid current is reduced by 50%
- Direct mounting on the valve
- Protection class IP 65
- Housing types for solenoids from □ 29

DIN 43650
ISO 4400

DESCRIPTION

Power reducing plug direct solenoid mounting. Contact arrangement in accordance with DIN 43650, form A (ISO 4400) for DC switching solenoids from □ 29 or bigger. The protection class of the power reduction plug is IP65 when fitted according to EN 60529. The connecting cable has to be attached to the screw terminals in the plug.

FUNCTION

Once the power has been switched on, nominal current passes through the solenoid for approx. 380ms, thereafter the current is limited to half of the nominal value by the cycle controlled output stage. If the power reduction plug version 90...230 VAC/DC is supplied for alternating current, it is nevertheless advantageous to use a DC solenoid.

APPLICATION

The housing is splash-protected, and can be used over a wide temperature range. The power reduction plug is suitable both for industrial and mobile use. The plug can be rotated through 180°. It protects continuously energised solenoids (e.g. used as a safety device) from overtemperature and premature ageing. By overenergisation, a valve which is in deenergised normal position (eventually seized piston) can be switched straight through under high-power.

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TYPE CODE

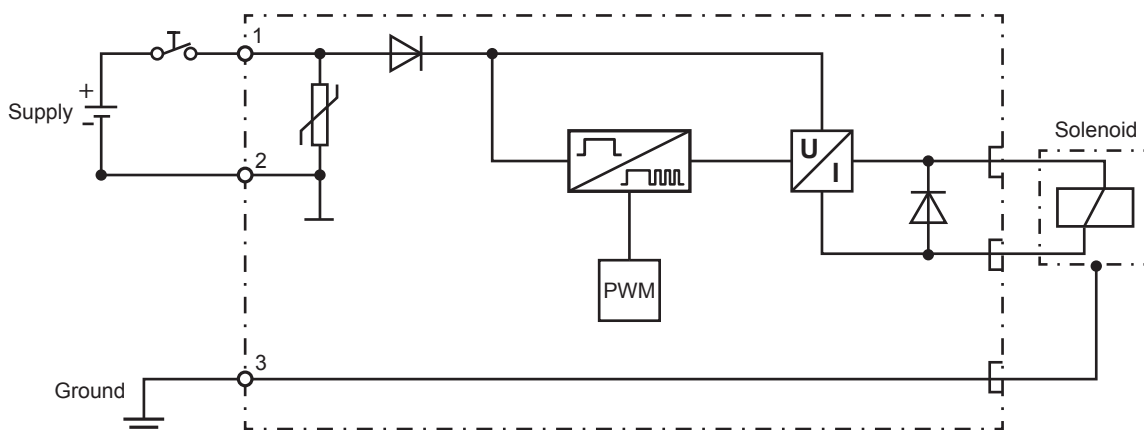
Plug	P 03	A - 1	□ #
Type number			
Housing type A for solenoids □ 29 or larger			
1-solenoid-version			
Supply voltage			
12...24 VDC	D2		
90...230 VAC or 90...230 VDC	B0		
Design-Index (Subject to change)			

GENERAL SPECIFICATIONS

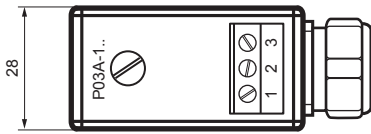
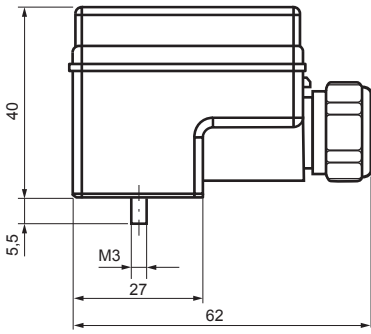
Plug housing	Polyamid
Plug lid	Polycarbonat
Weight	30g
Connections	by cable 0,5...1,5 mm ²
Ambient temperature	-25...60°C higher temperatures on request

ELECTRICAL SPECIFICATIONS

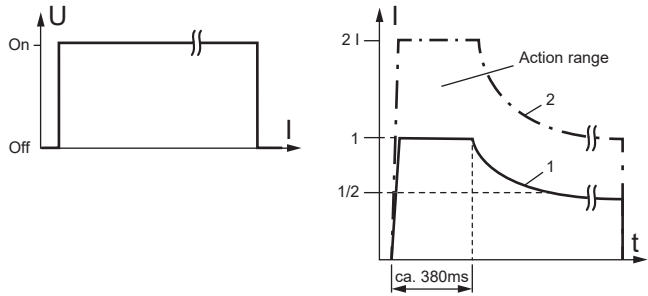
Supply voltage	12...24VDC	Range: 11...36VDC
	90...230VAC/DC	Range: 80...240VAC/DC
	Caution: Voltages which are outside of the tolerance can destroy the electronics!	
Dither	Frequency fix ca. 700 Hz	
Solenoid current	Version 12...24VDC (P03A-1D2)	$I_{Nmax} = 3,8A$
	Version 90...230VAC/DC (P03A-1B0)	$I_{Nmax} = 0,6A$
Switching frequency	600/h (50% ED)	
	Higher switching frequencies on request	
EMC	IEC 801-4 Level 3	

BLOCK DIAGRAM


DIMENSIONS



APPLICATION POSSIBILITIES



- ① Switching operation at nominal power, with subsequent power reduction.
 - reduced heating of coil
 - extended life of solenoid
 - shorter disconnection time
- ② Switching at elevated nominal power or overvoltage. For optimum design, please contact us.
 - powerful straight-through switching
 - shorter switching time

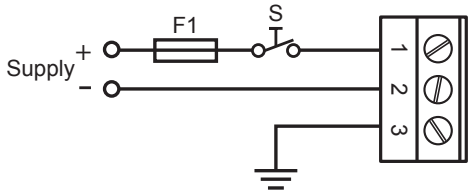
U: Supply voltage of the power reduction plug
I: Current consumption of the solenoid

START-UP

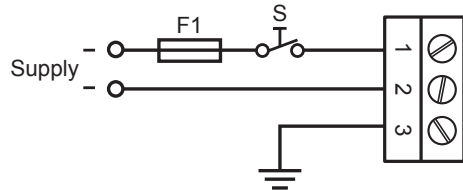
(This data sheet is enclosed with each power reducing plug)

Examples of connection

DC- Version:

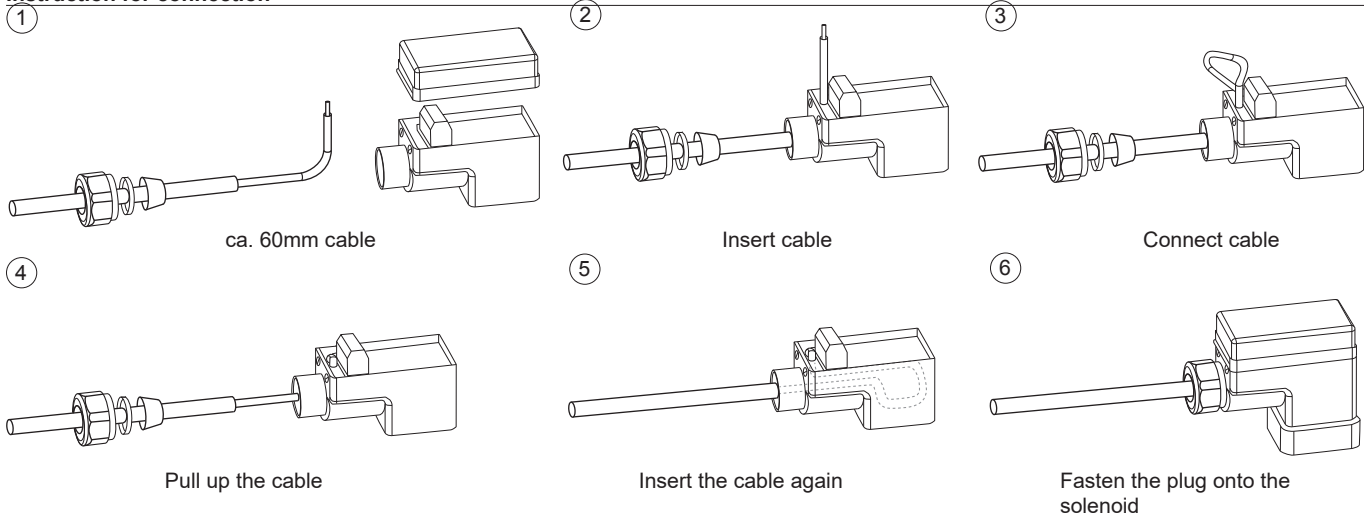


AC- Version:



F1: 12...24VDC (P03A-1D2) = 5A quick break
90...230VAC/DC (P03A-1B0) = 800mA quick break

Instruction for connection



Supply voltage

The cable is connected as described above.

Important warning!

The power supply to the plug version for 90...230VAC/DC must be disconnected or switched off while the cable is being connected to the plug and/or while the cover is removed.

Installation

To be able to fit the power reduction plug in the 180° reversed position, it is necessary to remove the bottom of the plug using a screw driver and to refit it rotated through 180°.