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 ø 29

DESCRIPTION
Power reducing plug direct solenoid mounting. Contact arrangement in accordance with DIN 43650, form A (ISO 4400) for DC switching solenoids from ø29 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.

CONTENTS
GENERAL SPECIFICATIONS .......... 1
ELECTRICAL SPECIFICATIONS ........ 1
BLOCK DIAGRAM ...................... 1
DIMENSIONS ......................... 2
APPLICATION POSSIBILITIES .......... 2
START-UP ............................ 2

GENERAL SPECIFICATIONS
Plug housing Polyamid
Plug lid Polycarbonat
Weight 30g
Connections by cable 0,5...1,5 mm²
Ambient temperature -25...+60°C

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_{\text{INmax}} = 3,8A
Version 90...230VAC/DC (P03A-1B0)
I_{\text{INmax}} = 0,6A
Switching frequency 600/h (50% ED)
EMC IEC 801-4 Level 3

TYPE CODE
Plug
Type number
Housing type A for solenoids ø 29 or larger
1-solenoid-version
Supply voltage 12...24 VDC
90...230 VAC or 90...230 VDC

BLOCK DIAGRAM
DIMENSIONS

APPLICATION POSSIBILITIES

1. Supply voltage
2. Action range

1. Supply voltage of the power reduction plug
2. Current consumption of the solenoid

START-UP

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

Examples of connection

DC- Version:

Supply + F1 S

F1: 12...24VDC (P03A-1D2) = 5A quick break

90...230VAC/DC (P03A-1B0) = 800mA quick break

AC- Version:

Supply - F1 S

Instruction for connection

1. Pull up the cable
2. Insert the cable again
3. Fasten the plug onto the solenoid
4. ca. 60mm cable
5. Connect cable

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°.