

Solenoid operated valves pilot operated poppet type  
2-way normally open  
Common cavity, Size 12

VEI-16-NA

OD.15 - X - 89 - Y - Z - 00

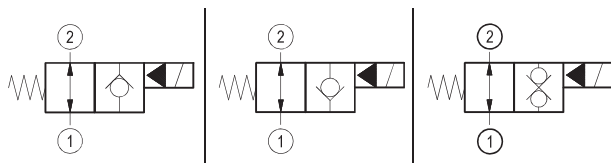
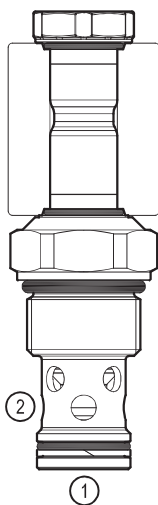
**RE 18323-40**

Edition: 06.2019

Replaces: 02.2019



**PATENT PENDING**



**Technical data**

New VEI-16 family incorporates a new solenoid concept providing excellent performance and enables cartridges to work in severe environment. Cartridges also incorporates advanced design of hydraulic parts providing excellent hydraulic performance.

**Technical data**

General	
Weight	0.25 kg (0.55 lbs)
Installation orientation	Unrestricted
Storage ambient temperature range	-40 to 100 °C (-40 to 212 °F)
Operating ambient temperature range	-30 to 90 °C (-22 to 194 °F)
Hydraulic	
Max. operating pressure	350 bar (5000 psi)
Flow range	5 - 150 l/min (1 - 40 gpm)
Max. internal leakage:	20 drops/min. for X= 02,06
Switching time	Closing ≤ 100 ms Opening ≤ 50 ms
Fluid temperature range	-20 to 80 °C (-4 to 176 °F)
Fluids: Mineral-based or synthetics with lubricating properties at viscosities of 20 to 380 mm <sup>2</sup> /s (cSt)	
Installation torque	54 - 66 Nm (40 - 49 ft-lbs)
Recommended degree of fluid contamination	Nominal value max. 10 μm (NAS 8) ISO 4406 19/17/14
MTTFD	150 years see 18350-51
Common cavity	CA-12A-2N see 18325-70
Seal kit for X=06	code RG12A2010520100 material no. R901111377
Seal kit for X=04,32	code RG12A2010530100 material no. R930003374
Seal kit coil and standard cap	code RG02Z0010000100 material no. R930067869
Seal kit coil and protective cap only for Y=B	code RG03Z0010000100 material no. R930067870
Seal kit coil and protective cap only for Y=C	code RG04Z0010000100 material no. R930069171
Other technical data	See data sheet 18350-50
Electrical	
Type of voltage	DC voltage
Coil type	D36
Supply voltage	See data sheet 18325-90
Voltage tolerance against ambient temperature	See characteristic curve
Power consumption	20 W
Type of protection	See data sheet 18325-90
Note: Coils must be ordered separately	

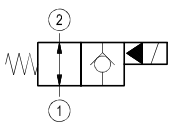
**Ordering code** ▶ **OD.15** **06** **89** **A** **0** **0000** **0**

<b>OD.15</b>	<b>X</b>	<b>89</b>	<b>Y</b>	<b>Z</b>	<b>0000</b>	<b>*</b>
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Solenoid operated valves  
pilot operated poppet type  
2-way normally open

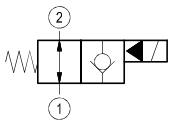
Series O/A to L  
unchanged performances and dimensions

bidirectional type



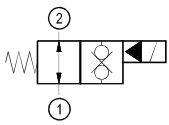
**04**

bidirectional type



**06**

bidirectional type



**32**

**0** = With buna seal  
V = With Viton seal  
P = With buna seal and protective cap for override version **B** and **C**  
T = With Viton seal and protective cap for override version **B** and **C**

**A** = Standard  
**B** = Push style manual override  
**C** = Push and twist style manual override

Common cavity: **CA-12A-2N**

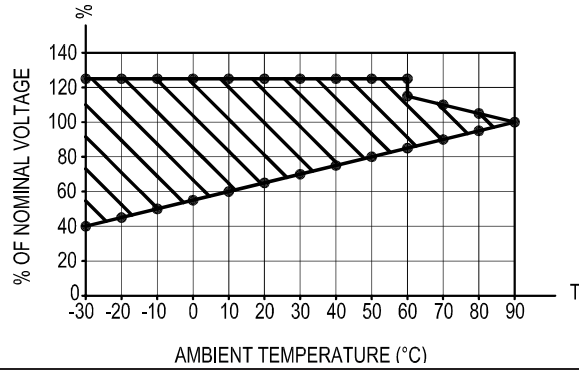
**Preferred types**

Type	Material number
<b>OD150689A000000</b>	<b>R930063151</b>
OD150689B000000	R930068531
OD150689C000000	R930069635
OD153289A000000	R930066971
OD153289B000000	R930071122
OD153289C000000	R930069395
OD150489A000000	R930069046
OD150489B000000	R930068525

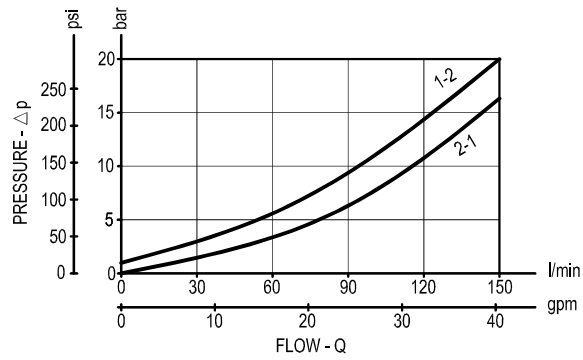
Type	Material number

Characteristic curves

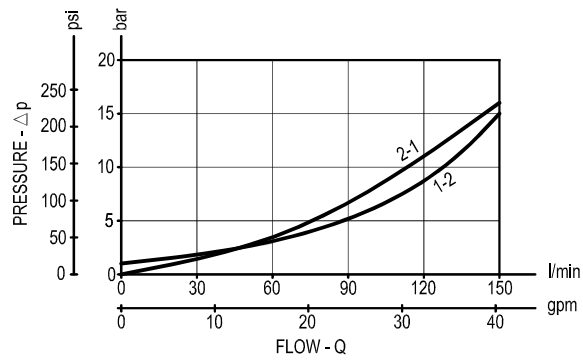
All Versions - Admissible supply voltage Vs. Ambient temperature at 100% duty cycle



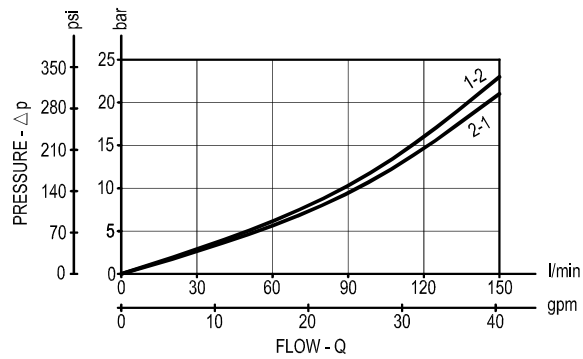
Versions 04



Versions 06

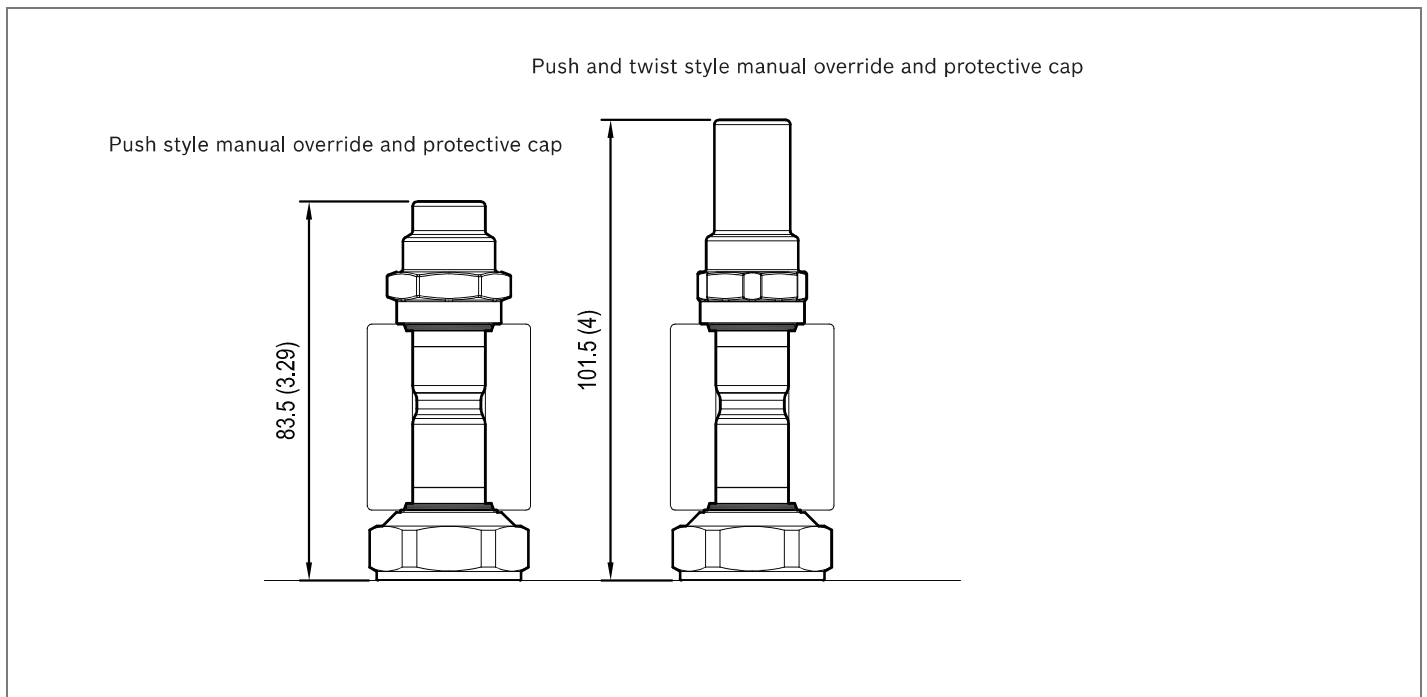
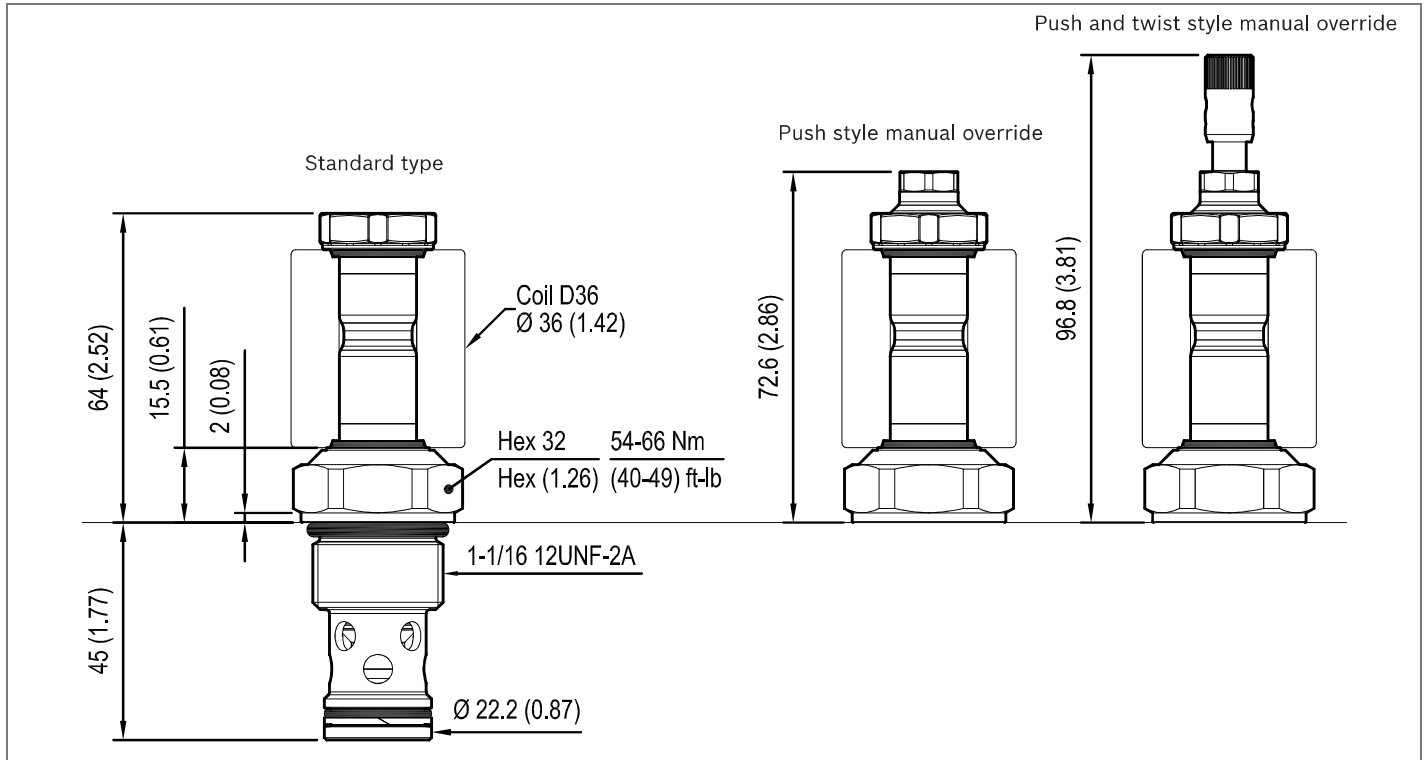


Versions 32



**Dimensions**

**Solenoid operated valves, poppet 2-way normally open**



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# Coils - Connectors

**OD.02.36 -01-30-OC**  
**OD.02.36 - X - Y - Z**

COIL D36 - CLASS H - 20 W

**TECHNICAL DATA**

Weight: 0.18 kg (0.40 lbs)

Power: 20 W

Heat insulation Class H: 180°C (356°F)

Storage ambient temperature range: -40 to 100 °C (-40 to 212 °F)

Operating ambient temperature range: -30 to 90 °C (-22 to 194 °F)

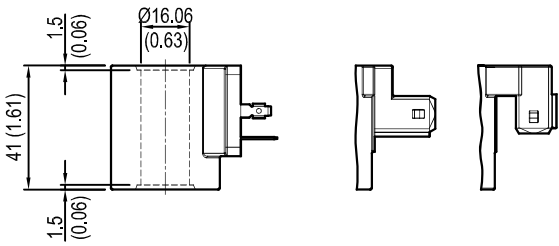
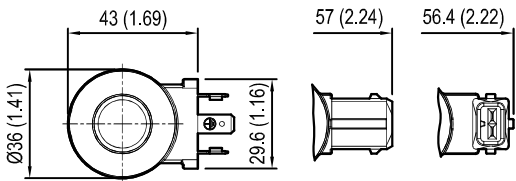
Further performance limits in terms of temperature and voltage fluctuations: please refer to data sheet of the solenoid valve where D36 coil is mounted.

DIN 43650-ISO 4400  
IP65

AMP JUNIOR  
HORIZONTAL  
IP67

AMP JUNIOR  
VERTICAL  
IP67

X	Y	Connections	Circuit	Voltage
01	30	DIN 43650 - ISO 4400	Standard	DC
07	30	AMP JUNIOR H	Standard	DC
07	3P	AMP JUNIOR V	Standard	DC
14	30	DIN 43650 - ISO 4400	Bidirectional Diode	DC
15	30	AMP JUNIOR H	Bidirectional Diode	DC
15	3P	AMP JUNIOR V	Bidirectional Diode	DC



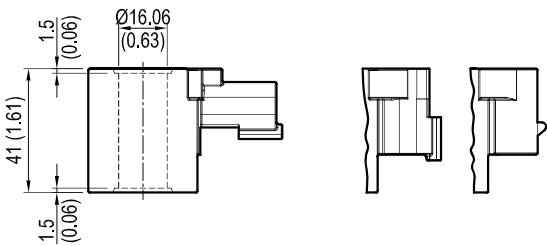
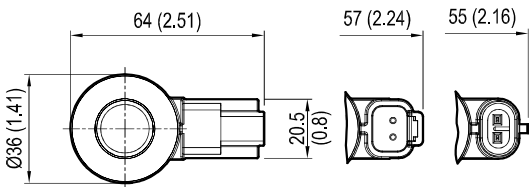
[ mm / Inches ]

DEUTSCH DT04-2P-L  
IP69K

DEUTSCH DT04-2P-V  
IP69K

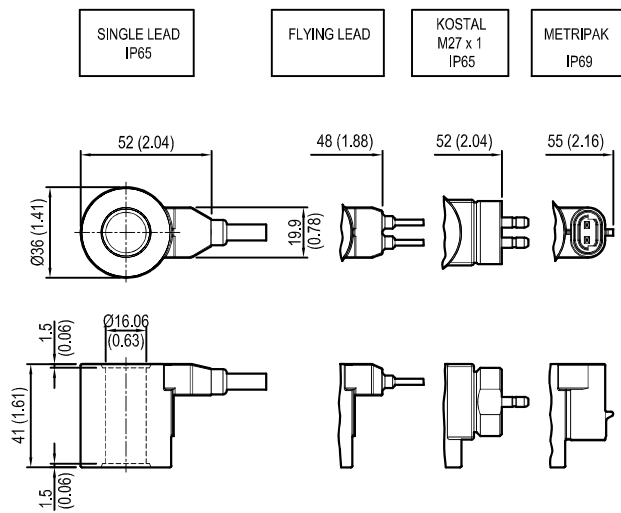
AMP SUPERSEAL-V  
IP69K

X	Y	Connections	Circuit	Voltage
20	30	DEUTSCH DT04-2P-L	Standard	DC
20	3P	DEUTSCH DT04-2P-V	Standard	DC
30	3P	AMP SUPERSEAL-V	Standard	DC
22	30	DEUTSCH DT04-2P-L	Bidirectional Diode	DC
22	3P	DEUTSCH DT04-2P-V	Bidirectional Diode	DC
32	3P	AMP SUPERSEAL-V	Bidirectional Diode	DC



[ mm / Inches ]

# Coils - Connectors



[ mm / Inches ]

X	Y	Connections	Circuit	Voltage
0G	03	SINGLE LEAD *	Standard	DC
02	03	FLYING LEAD **	Standard	DC
03	30	KOSTAL M27x01	Standard	DC
40	3P	METRIPAK	Standard	DC
0H	03	SINGLE LEAD *	Bidirectional Diode	DC
23	03	FLYING LEAD **	Bidirectional Diode	DC
12	30	KOSTAL M27x01	Bidirectional Diode	DC
41	3P	METRIPAK	Bidirectional Diode	DC

\* Length 300mm (11.8 inches). Ext. diameter 6.3mm (0.25 inches). External and internal Shealth Silicone rubber.  
\*\* Length 300mm

Note: Single lead and Flying lead coil also available with 1000 mm length; ordering code with Y=10 in place of Y=03

Z	Voltage V	Resistance Ohm (±7%)	Power W	Current A	
	Nominal	aT = 20 °C (68 °F)		I Max.	I Nom.
OB	12 DC	7.4	20	1.67	1.04
<b>OC</b>	<b>24 DC</b>	<b>28.4</b>	<b>20</b>	<b>0.83</b>	<b>0.54</b>
OD	48 DC	106.5	20	0.42	0.29
OU*	96 DC	451	20	0.21	0.14
AH*	205 DC	2062	20	0.10	0.06

\* OU and AH versions especially designed in cases of AC supply voltage (respectively for 110AC and 220 AC) to be used in conjunction with connector with circuit including wave rectifier. Ambient temperature range for OU and AH versions: -30°C / + 75°C

Note: diode available only for 12 V DC and 24 V DC coils. Diode set at 27 V DC for 12 V DC coil and at 39 V DC for 24 V DC coil.

## Preferred types

Type	Material number
OD0236403POB00	R901395221
OD02360G03OB00	R901435529
OD02360G10OB00	R901435530
OD02360H03OB00	R901435532
OD02360H10OB00	R901435536
OD02360G03OC00	R901435533
OD02360G10OC00	R901435523
OD02360330OB00	R901395048
OD02360330OC00	R901395057
OD02360730OB00	R901435508
OD02361530OB00	R901435507
OD02360730OC00	R901435506
OD02361530OC00	R901435494
OD02360730OD00	R901435488
OD0236203POB00	R901394391

Type	Material number
OD0236223POB00	R901394397
OD0236203POC00	R901394393
OD0236223POC00	R901394399
OD02360130OB00	R901393412
OD02361430OB00	R901394119
<b>OD02360130OC00</b>	<b>R901393577</b>
OD02361430OC00	R901394225
OD02360130OD00	R901394117
OD02360130OU00	R901394229
OD02360130AH00	R901394231
OD0236303POB00	R901395209
OD0236323POB00	R901395211
OD0236303POC00	R901395213
OD0236323POC00	R901453107

Further types available by request