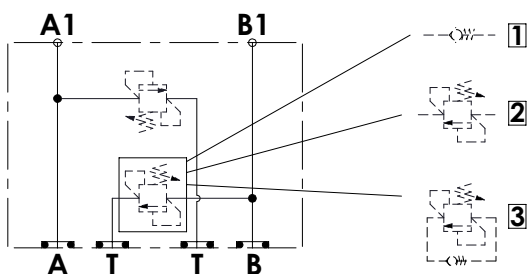


HYDRAULIC SCHEME

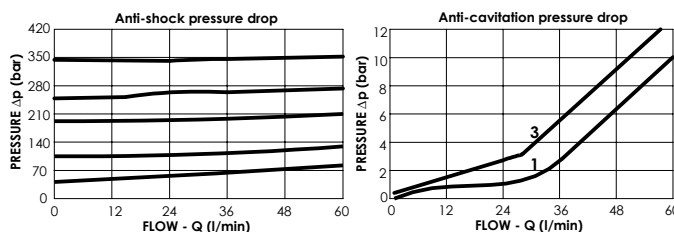


This flangeable valve can be mounted on top of the monoblock after removing the T line plugs; it has different configurations such as anti-shock, anti-cavitation or anti-shock/cavitation. There are three mounting options, single valve on A or on B for single effect operation or valves on A and B for double effect operation. The manifold is made in aluminium with anodization surface treatment or on request in steel with zinc plating treatment.

TECHNICAL DATA

Max pressure	210/320 bar
Rated flow	60 l/min
Hydraulic fluid	Mineral oil DIN 51 524
Fluid viscosity	10-500 mm ² /s
Fluid temperature	-25°C/75°C
Environment temperature	-25°C/60°C
Weight	0,4 Kg

PRESSURE DROP



ORDERING DETAILS: SEPARATE ELEMENTS

MA -060- *NFD- ** -***-N*****

*	VALVE TYPE
S	Single effect
D	Double effect

*	VALVE OPTION
N	Valves in both ports
A	Valve only A port
B	Valve only B port

*	MATERIAL TYPE
A	Steel zinc-plated (320 bar)
Z	Aluminium anodized (210 bar)

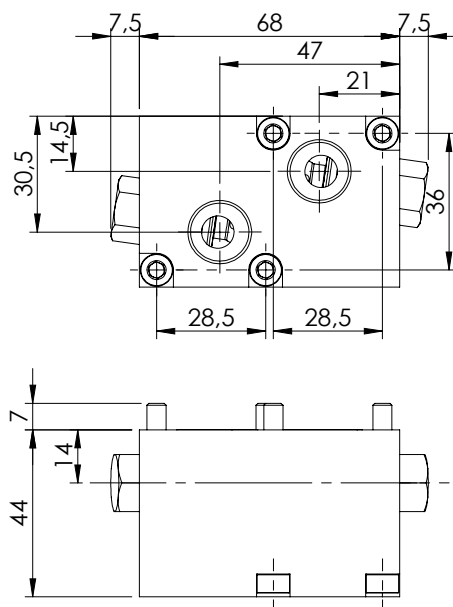
**	VALVE TYPE	
	A line	B line
	no valve	no valve
1	anti-cavitation	anti-cavitation
2	anti-shock	anti-shock
3	anti-cav/shock	anti-cav/shock

***	PORTS		
	A line	B line	M
G38	G 3/8"	G 3/8"	/
U09	9/16"-18 UNF	9/16"-18 UNF	/

*	SETTINGS RANGE
...	10 - 310 bar
../..	For difference A e B setting sign it

QUICK CODE	
DESCRIPTION	CODE

OVERALL DIMENSIONS

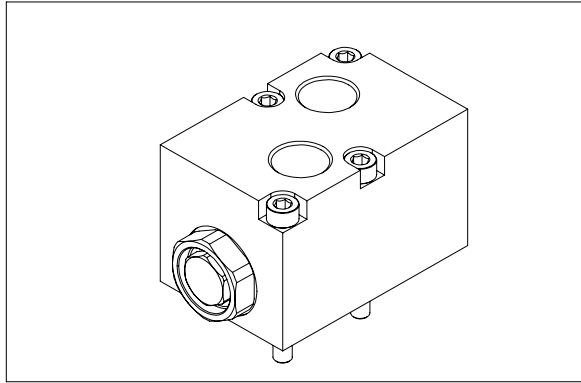


EB - MODULAR VALVE SECTION



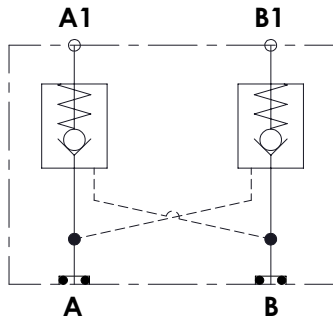
MCDN-060-ZNFD

PO CHECK VALVE FLANGIABLE VALVE



This flangeable valve can be mounted on top of the monoblock keeping the T line plugs.
The valve consist in two pilot operated check piloted by the opposite line and is poppet type.
The manifold is made in aluminium with anodization surface treatment or on request in steel with zinc plating treatment.

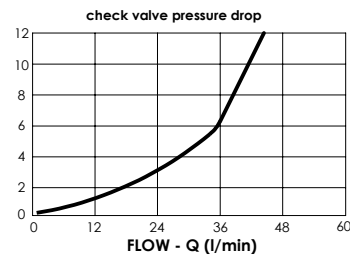
HYDRAULIC SCHEME



TECHNICAL DATA

Max pressure	210/320 bar
Rated flow	60 l/min
Pilot ratio	6:1
Hydraulic fluid	Mineral oil DIN 51524
Fluid viscosity	10-500 mm ² /s
Fluid temperature	-25°C/75°C
Environment temperature	-25°C/60°C
Weight	0,4 Kg

PRESSURE DROP



ORDERING DETAILS: SEPARATE ELEMENTS

MC - 060 - * NFD-06-***-N**

*	VALVE TYPE
S	Single effect
D	Double effect

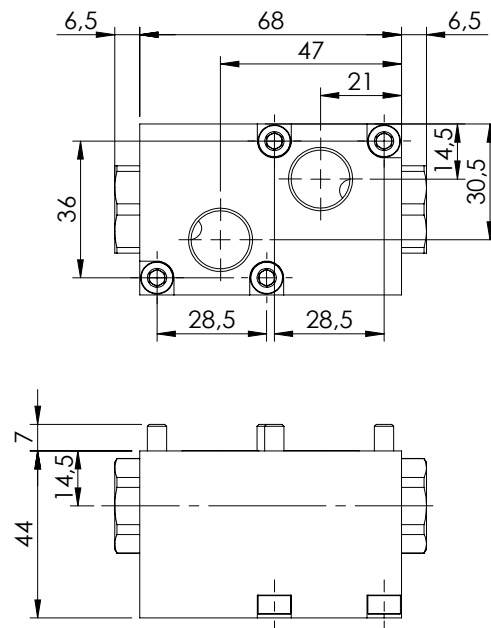
*	VALVE OPTION
N	Check valve on A e B ports
A	Check valve only A port
B	Check valve only B port

*	MATERIAL TYPE
A	Steel zinc-plated (320 bar)
Z	Aluminium anodized (210 bar)

***	PORTS		
	A line	B line	M
G38	G 3/8"	G 3/8"	/
U09	9/16"-18 UNF	9/16"-18 UNF	/

QUICK CODE	
DESCRIPTION	CODE
MCDN-060-ZNFD-06-G38-N210	MC000173
MCSA-060-ZNFD-06-G38-N210	MC000185

OVERALL DIMENSIONS

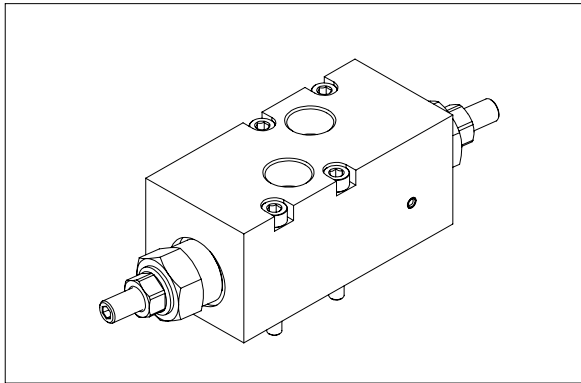


EB - MODULAR VALVE SECTION

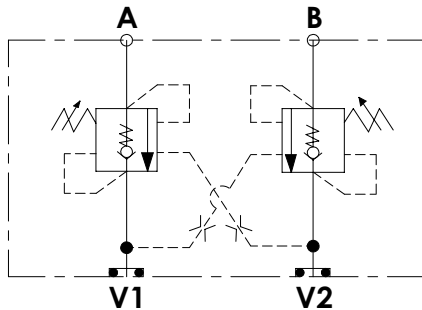


MBDN-060-ZNFD

**OVERCENTER
FLANGEABLE VALVE**



HYDRAULIC SCHEME

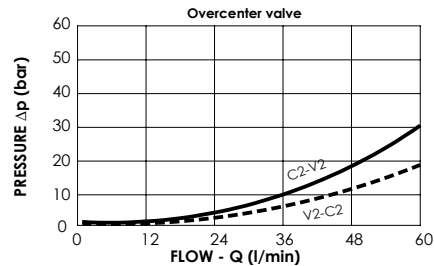


This modular block is made with overcenter valves to control the load on A and B port. The valves are poppet type with a pilot ratio of 4:1, other pilot ratios are available on request. The standard configuration provides valves on both lines, it is possible to order also valves on only one side. The manifold is made in aluminium with anodization surface treatment or on request in steel with zinc plating treatment.

TECHNICAL DATA

Max pressure	210/320 bar
Rated flow	60 l/min
Pilot ratio	4:1
Hydraulic fluid	Mineral oil DIN 51524
Fluid viscosity	10-500 mm ² /s
Fluid temperature	-25°C/75°C
Environment temperature	-25°C/60°C
Weight	0,4 Kg

PRESSURE DROP



ORDERING DETAILS: SEPARATE ELEMENTS

MB - 060 - *NFD-04-***-N*****

*	VALVE TYPE
S	Single effect
D	Double effect

*	VALVE OPTION
N	Check valve on A e B ports
A	Check valve only A port
B	Check valve only B port

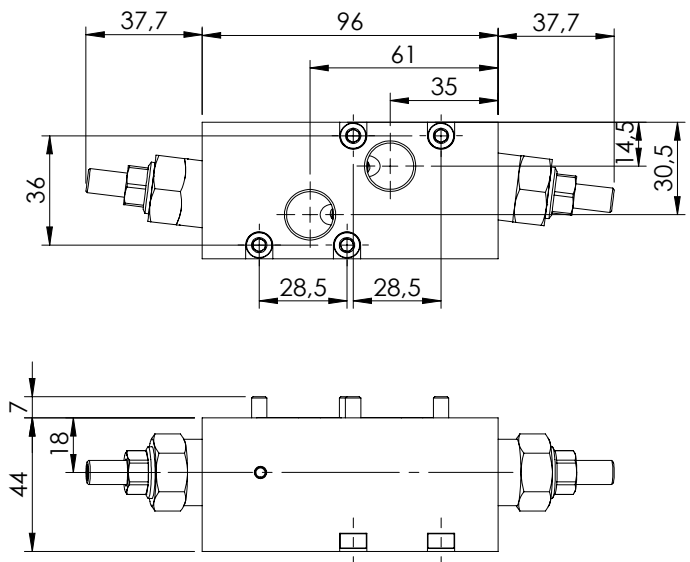
*	MATERIAL TYPE
A	Steel zinc-plated (320 bar)
Z	Aluminium anodized (210 bar)

***	PORTS
	A line B line M
G38	G 3/8" G 3/8" /
U09	9/16"-18 UNF 9/16"-18 UNF /

*	O-RING TYPE
100	100 bar settings
210	210 bar settings (standard)
320	320 bar settings (steel manifold)

QUICK CODE	
DESCRIPTION	CODE
MBDN-060-ZNFD-04-G38-N210	MB000874
MBSA-060-ZNFD-04-G38-N210	MB000875

OVERALL DIMENSIONS

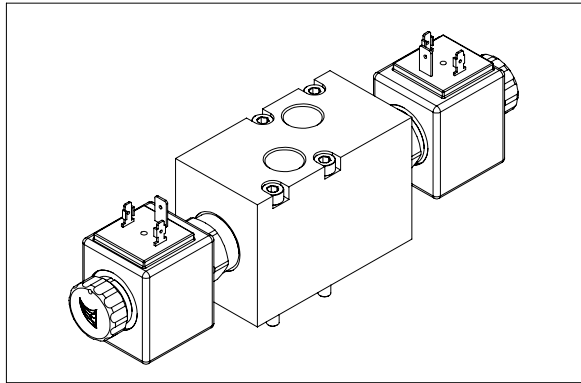


EB - MODULAR VALVE SECTION

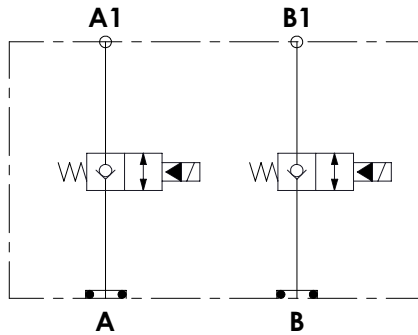


KEDN-060-ZNFD

IN LINE ELETRICAL FLANGEABLE VALVE



HYDRAULIC SCHEME



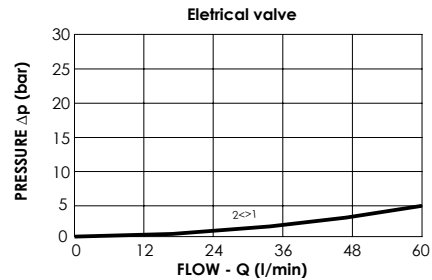
This modular block is equipped with solenoid valves, normally closed, poppet type and can be used to obtain a leak free function on the spool valve or to stop functions. It is available in three configurations, with valves on both lines or on A or on B line.

The manifold is made in aluminium with anodization surface treatment or on request in steel with zinc plating treatment.

TECHNICAL DATA

Max pressure	210/320 bar
Rated flow	60 l/min
Insertion	100% ED
Hydraulic fluid	Mineral oil DIN 51524
Fluid viscosity	10-500 mm ² /s
Fluid temperature	-25°C/75°C
Environment temperature	-25°C/60°C
Weight	0,4 Kg

PRESSURE DROP



ORDERING DETAILS: SEPARATE ELEMENTS

KE * * - 060 - * NFD-04 - * * * - * * * N

*	VALVE TYPE
S	Single effect
D	Double effect

*	VALVE OPTION
N	EV on A e B ports
A	EV only A port
B	EV only B port

*	MATERIAL TYPE
A	Steel zinc-plated (320 bar)
Z	Aluminium anodized (210 bar)

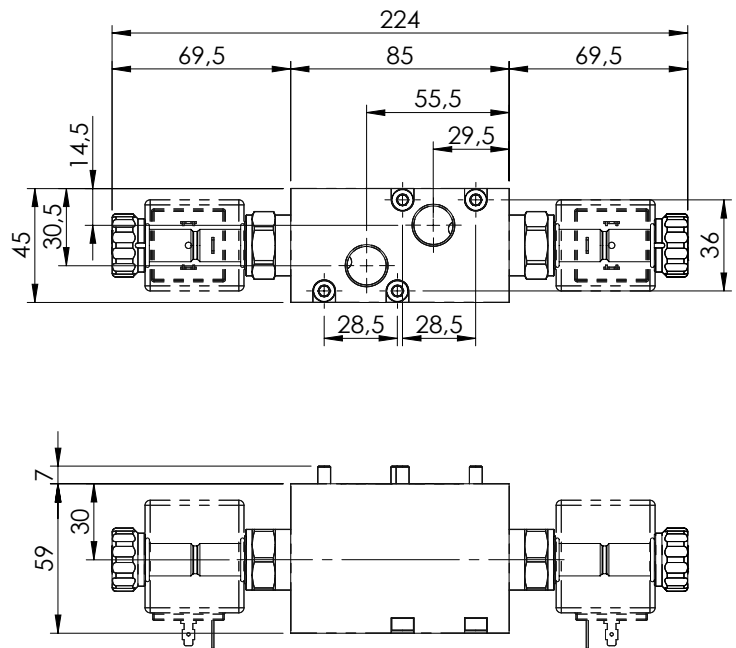
***	PORTS		
	A line	B line	M
G38	G 3/8"	G 3/8"	/
U09	9/16"-18 UNF	9/16"-18 UNF	/

*	VOLTAGE
	no coils
A	12 V dc
B	24 V dc

**	COILS TYPE
	no coils
HR	Hirschmann (ISO 4400 DIN 43650)
DT	Deutsch (DT04-2P)
AJ	Amp junior (AJ type)

QUICK CODE	
DESCRIPTION	CODE

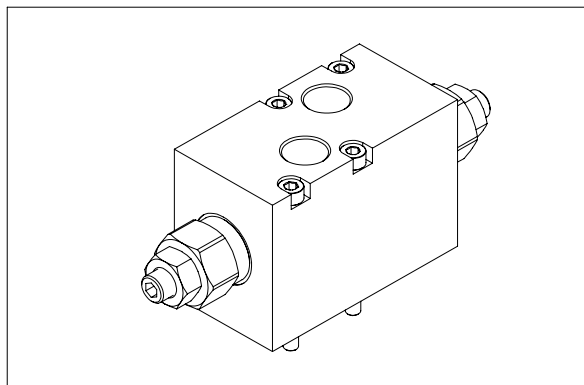
OVERALL DIMENSIONS



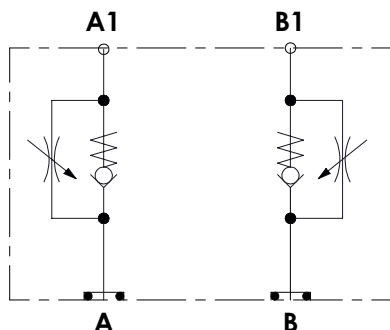
EB - MODULAR VALVE SECTION

KFDN-060-ZNFD

**IN LINE FLOW RESTRICTOR
FLANGIABLE VALVE**



HYDRAULIC SCHEME

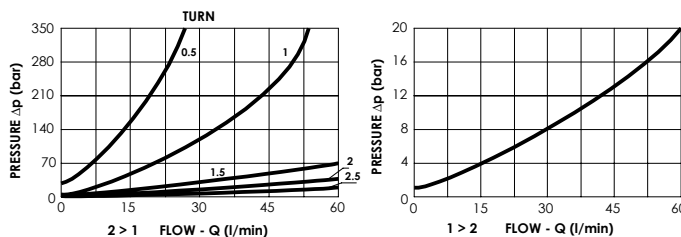


This modular valve is equipped with mono directional flow restrictor not compensated to adjust the speed of the application; it is available in three configurations, with valves on A line, on B line (single effect) or A and B line (double effect). The manifold is made in aluminium with anodization surface treatment or on request in steel with zinc plating treatment.

TECHNICAL DATA

Max pressure	210/320 bar
Rated flow	60 l/min
Hydraulic fluid	Mineral oil DIN 51524
Fluid viscosity	10-500 mm ² /s
Fluid temperature	-25°C/75°C
Environment temperature	-25°C/60°C
Weight	0,8 Kg

PRESSURE DROP



ORDERING DETAILS: SEPARATE ELEMENTS

KF * * - 060 - * NFD-04 - * - N**

*	VALVE TYPE
S	Single effect
D	Double effect

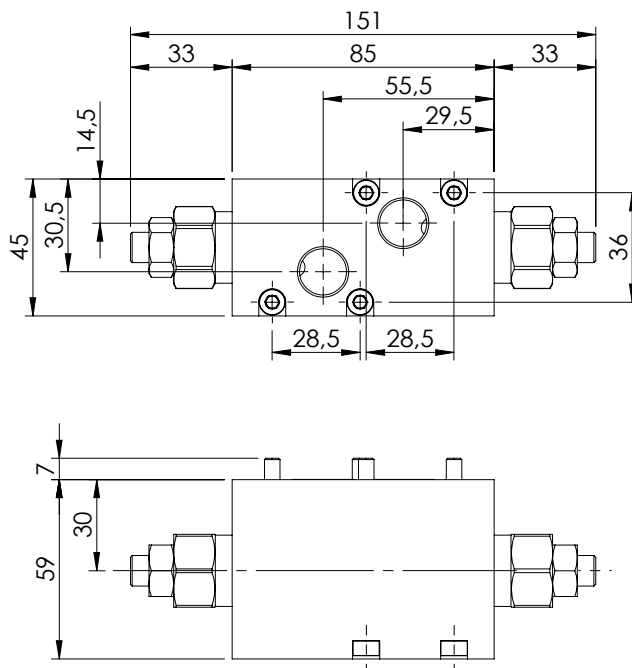
*	VALVE OPTION
N	Flow restrictor on A e B ports
A	Flow restrictor only A port
B	Flow restrictor only B port

*	MATERIAL TYPE
A	Steel zinc-plated (320 bar)
Z	Aluminium anodized (210 bar)

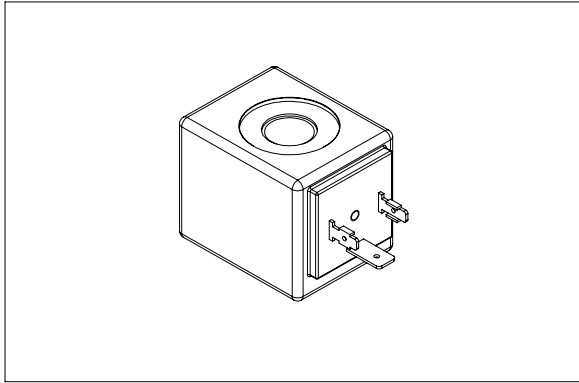
***	PORTS		
	A line	B line	M
G38	G 3/8"	G 3/8"	/
U09	9/16"-18 UNF	9/16"-18 UNF	/

QUICK CODE	
DESCRIPTION	CODE

OVERALL DIMENSIONS



COIL SERIES M7



COIL TYPE

The coils have the magnetic circuit coated with black thermoplastic material. All metal parts are protected against oxidation according to RoHS directive. For proper insulation it is required to install the proper seals supplied with the tubes.

TECHNICAL DATA

Protection type	IP 65 with all seal
Protection type	IP 69K with all seal only DT
Alimentation tolerance	+10%
Ambient temperature	-20°C +50°C
Duty cycle	100% ED (max 40°C ambient)
Isolation class	Class H (max 180°C)
Weight	0,18 kg

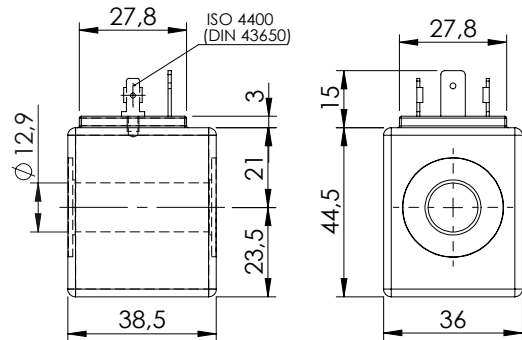
Coils are available with three different connections type, special voltage are available on request, please contact AFT sales network.

- (1) Ambient temperature 25°C
- (2) Ambient temperature 20°C

OVERALL DIMENSIONS

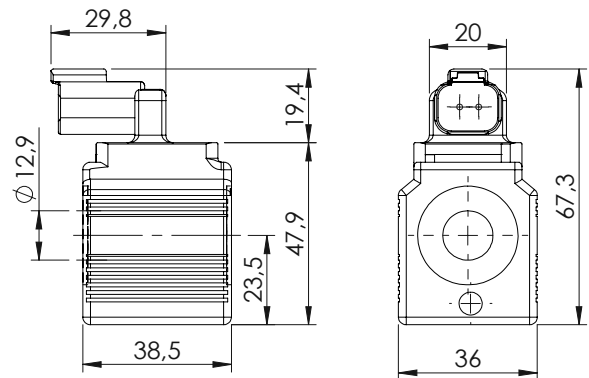
DIN 43650 (HR)

Coils		Max winding temperature (1)	Nominal potency	Resistance (±7%) (2)	Code parts
Code	Voltage				
A	12 V DC	135°C	20 W	7.2	AB000002
B	24 V DC	135°C	20 W	28.8	AB000003
C	48 V DC	135°C	20 W	115.2	AB000046
D	110 R AC	120°C	20 W	605	AB000012
E	220 R AC	120°C	20 W	2420	AB000007



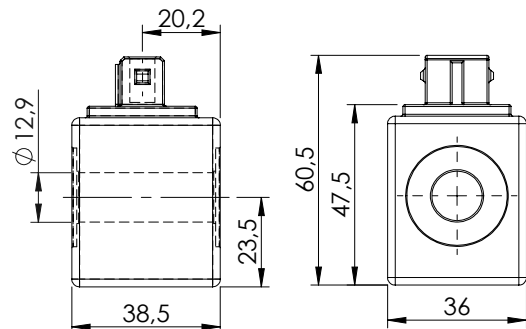
DEUTSCH (DTV)

Coils		Max winding temperature (1)	Nominal potency	Resistance (±7%) (2)	Code parts
Code	Voltage				
A	12 V DC	135°C	20 W	7.2	AB000022
B	24 V DC	135°C	20 W	28.8	AB000023
C	48 V DC	135°C	20 W	115.2	
D	110 R AC	120°C	20 W	605	
E	220 R AC	120°C	20 W	2420	

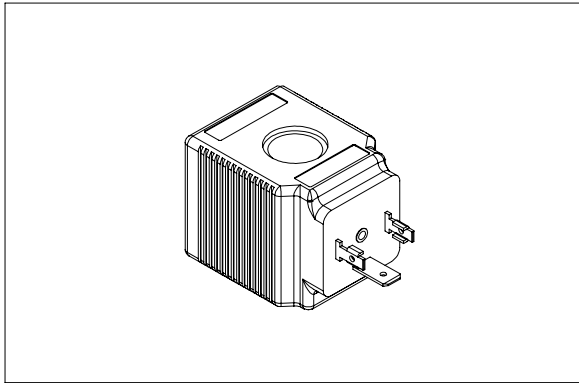


AMP JUNIOR (AJ)

Coils		Max winding temperature	Nominal potency	Resistance (±7%)	Code parts
Code	Voltage				
A	12 V DC	135°C	20 W	7.2	AB000005
B	24 V DC	135°C	20 W	28.8	AB000014
C	48 V DC	135°C	20 W	115.2	AB000021
D	110 R AC	120°C	20 W	605	
E	220 R AC	120°C	20 W	2420	



COIL SERIES M14



COILS TYPE

The coils have the magnetic circuit coated with black thermoplastic material. All metal parts are protected against oxidation according to RoHS directive. For proper insulation it is required to install the proper seals supplied with the tubes.

TECHNICAL DATA

Protection type	IP 65 with all seal
Protection type	IP 69K with all seal only DT
Activation	18000/h
Alimentation tolerance	+10%
Ambient temperature	-20°C + 50°C
Duty cycle	100% ED (max 40°C ambient)
Isolation class	Class H (max 180°C)
Weight	0,18 kg

OVERALL DIMENSIONS

Coils are available with three different connections type, special voltage are available on request, please contact AFT sales network.

- (1) Ambient temperature 25°C
- (2) Ambient temperature 20°C

DIN 43650 (HR)

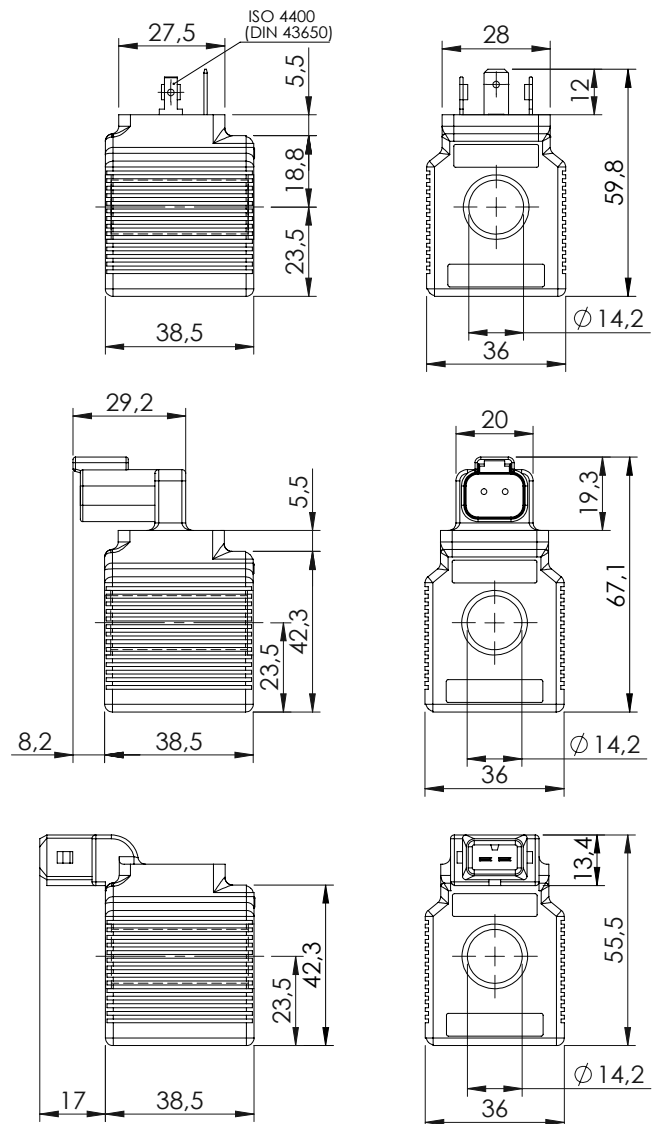
Coils		Max winding temperature (1)	Nominal potency	Resistance (±7%) (2)	Code parts
Code	Voltage				
A	12 V DC	135°C	26 W	5.54	AB000143
B	24 V DC	135°C	26 W	22.15	AB000144
C	48 V DC	135°C	26 W	88.6	
D	110 R AC	120°C	26 W	465.4	
E	220 R AC	120°C	26 W	1861.5	

DEUTSCH (DTV)

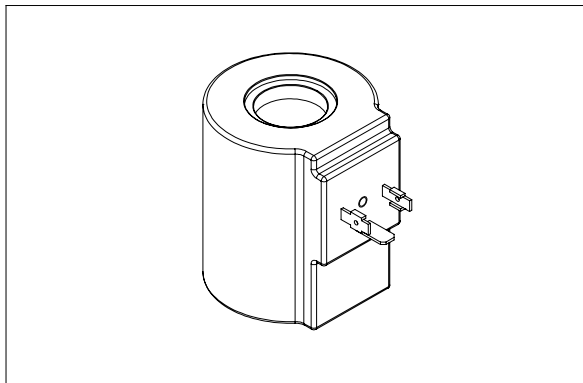
Coils		Max winding temperature (1)	Nominal potency	Resistance (±7%) (2)	Code parts
Code	Voltage				
A	12 V DC	135°C	26 W	5.54	AB000132
B	24 V DC	135°C	26 W	22.15	AB000133
C	48 V DC	135°C	26 W	88.6	
D	110 R AC	120°C	26 W	465.4	
E	220 R AC	120°C	26 W	1861.5	

AMP JUNIOR (AJ)

Coils		Max winding temperature	Nominal potency	Resistance (±7%)	Code parts
Code	Voltage				
A	12 V DC	135°C	26 W	5.54	AB000136
B	24 V DC	135°C	26 W	22.15	
C	48 V DC	135°C	26 W	88.6	AB000131
D	110 R AC	120°C	26 W	465.4	
E	220 R AC	120°C	26 W	1861.5	



COIL SERIES M8



COILS TYPE

The coils have the magnetic circuit coated with black thermoplastic material. All metal parts are protected against oxidation according to RoHS directive. For proper insulation it is required to install the proper seals supplied with the tubes.

TECHNICAL DATA

Protection type	IP 65 with all seal
Protection type	IP 69K with all seal only DT
Alimentation tolerance	+10%
Ambient temperature	-20°C + 50°C
Duty cycle	100% ED (max 40°C ambient)
Isolation class	Class H (max 180°C)
Weight	0,18 kg

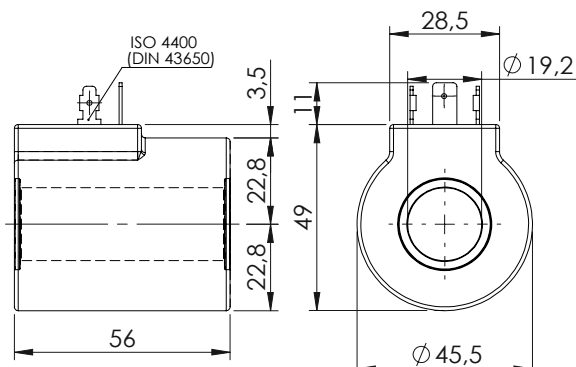
Coils are available with three different connections type, special voltage are available on request, please contact AFT sales network.

- (1) Ambient temperature 25°C
- (2) Ambient temperature 20°C

OVERALL DIMENSIONS

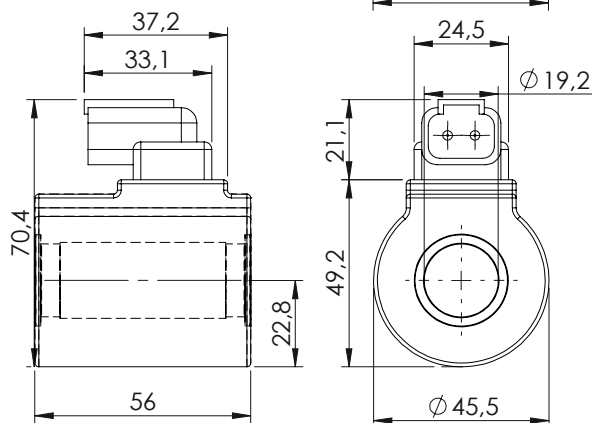
HIRSCHMANN (HR)

Coils		Max winding temperature (1)	Nominal potency	Resistance (±7%) (2)	Code parts
Code	Voltage				
A	12 V DC	135°C	33 W	4.36	AB000015
B	24 V DC	135°C	33 W	17.5	AB000029
C	48 V DC	135°C	33 W	69.8	AB000158
D	110 R AC	120°C	33 W	366.7	AB000092
E	220 R AC	120°C	33 W	1466.7	



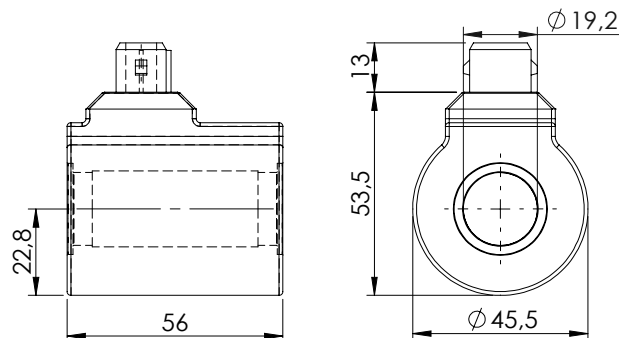
DEUTSCH (DTV)

Coils		Max winding temperature (1)	Nominal potency	Resistance (±7%) (2)	Code parts
Code	Voltage				
A	12 V DC	135°C	33 W	4.36	AB000104
B	24 V DC	135°C	33 W	17.5	AB000105
C	48 V DC	135°C	33 W	69.8	
D	110 R AC	120°C	33 W	366.7	
E	220 R AC	120°C	33 W	1466.7	

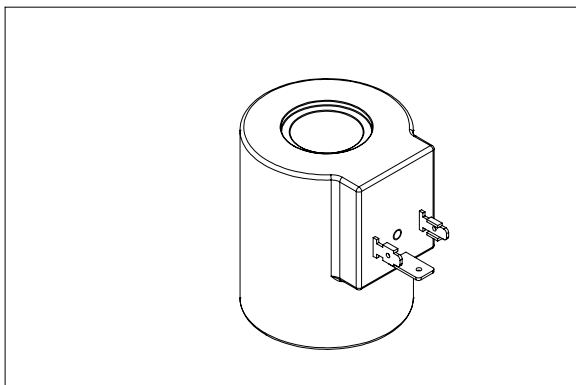


AMP JUNIOR (AJ)

Coils		Max winding temperature	Nominal potency	Resistance (±7%)	Code parts
Code	Voltage				
A	12 V DC	135°C	33 W	4.36	AB000048
B	24 V DC	135°C	33 W	17.5	
C	48 V DC	135°C	33 W	69.8	
D	110 R AC	120°C	33 W	366.7	
E	220 R AC	120°C	33 W	1466.7	



COIL SERIES M15



COILS TYPE

The coils have the magnetic circuit coated with black thermoplastic material. All metal parts are protected against oxidation according to RoHS directive. For proper insulation it is required to install the proper seals supplied with the tubes.

TECHNICAL DATA

Protection type	IP 65 with all seal
Protection type	IP 69K with all seal only DT
Alimentation tolerance	+10%
Ambient temperature	-20°C + 50°C
Duty cycle	100% ED (max 40°C ambient)
Isolation class	Class H (max 180°C)
Weight	0,18 kg

Coils are available with three different connections type, special voltage are available on request, please contact AFT sales network.

- (1) Ambient temperature 25°C
- (2) Ambient temperature 20°C

HIRSCHMANN (HR)

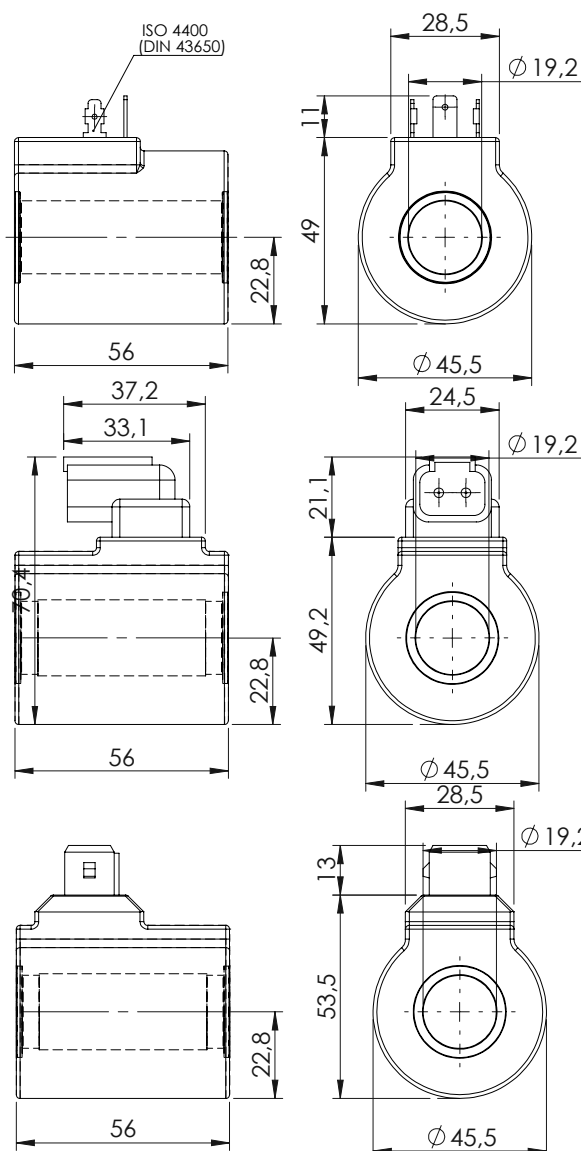
Coils		Max winding temperature (1)	Nominal potency	Resistance (±7%) (2)	Code parts
Code	Voltage				
A	12 V DC	135°C	23 W	6.3	AB000137
B	24 V DC	135°C	23 W	25	AB000138
C	48 V DC	135°C	23 W	100.2	
D	110 R AC	120°C	23 W	526	
E	220 R AC	120°C	23 W	2104.3	

DEUTSCH (DTV)

Coils		Max winding temperature (1)	Nominal potency	Resistance (±7%) (2)	Code parts
Code	Voltage				
A	12 V DC	135°C	23 W	6.3	AB000141
B	24 V DC	135°C	23 W	25	AB000142
C	48 V DC	135°C	23 W	100.2	
D	110 R AC	120°C	23 W	526	
E	220 R AC	120°C	23 W	2104.3	

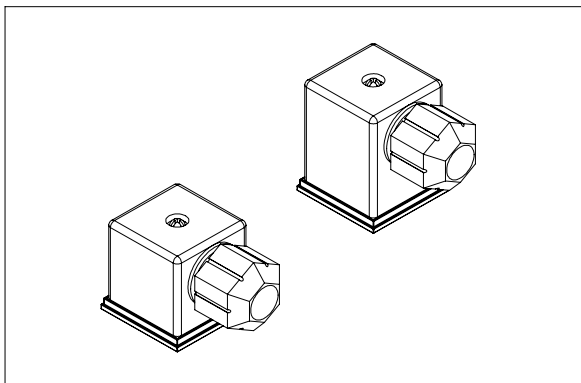
AMP JUNIOR (AJ)

Coils		Max winding temperature	Nominal potency	Resistance (±7%)	Code parts
Code	Voltage				
A	12 V DC	135°C	23 W	6.3	AB000139
B	24 V DC	135°C	23 W	25	AB000140
C	48 V DC	135°C	23 W	100.2	
D	110 R AC	120°C	23 W	526	
E	220 R AC	120°C	23 W	2104.3	



CONNECTORS

CONNECTOR FOR SOLENOID VALVE

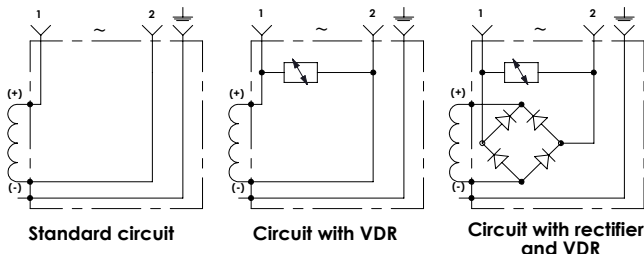


Connector for solenoid valve according to standards DIN 43650 / ISO 4400, different types of circuits are available, standard circuit, circuit with "VDR", circuit with "VDR+ rectifier" or circuit with LED

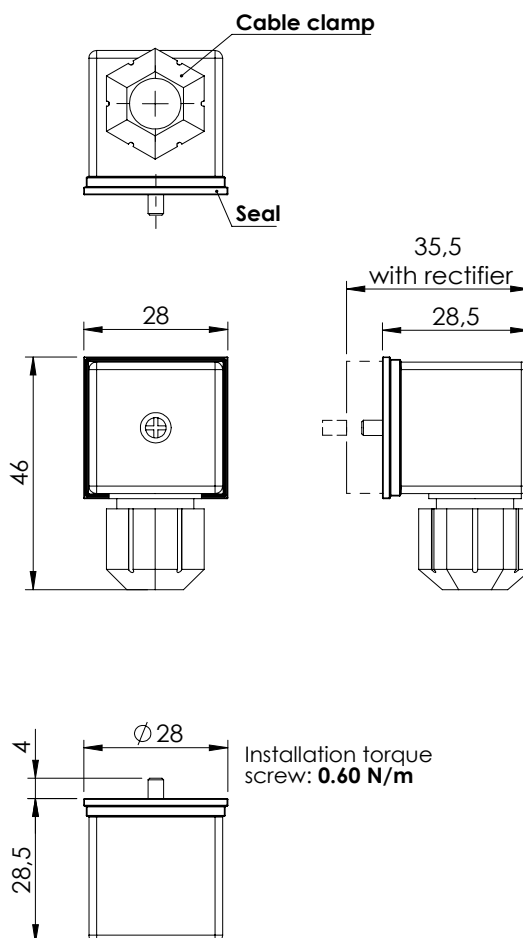
TECHNICAL DATA

Voltage rating	AC/DC: up to 250/300 V max
Max current	16.0 A
Contact resistance	≤ 4 mΩ
Max conductor	1.5 mm ²
Cable range	Ø4.0 to Ø9.0 mm
Protection class	IP 67 EN60529
Seal	Nitrile rubber
Poles	2 plus ground
Connector	EN 175301-803 (DIN 43650)

ELECTRIC SCHEME



OVERALL DIMENSIONS

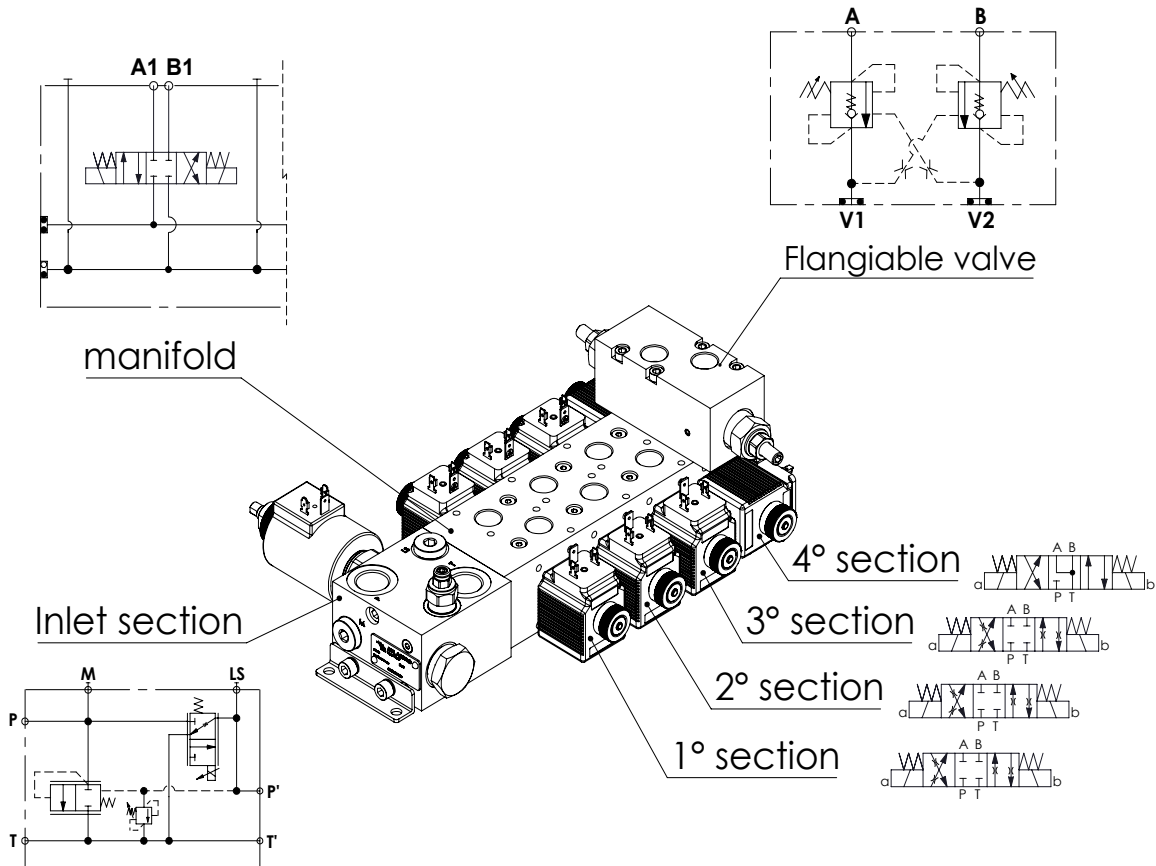


ORDERING DETAILS: SEPARATE ELEMENTS

Quick code	Colour	VDR	LED	Rectifier	Voltage
PV000171	Black	No	No	No	12V to 230V
PV000195	Black	Yes	No	No	12V dc
PV000349	Black	Yes	No	No	24V dc
PV000198	Trasparent	Yes	Yes	No	12V dc
PV000196	Trasparent	Yes	Yes	No	24V dc
PV000347	Black	Yes	No	Yes	12V RAC
PV000348	Black	Yes	No	Yes	24V RAC
	Black	Yes	No	Yes	110V RAC
	Black	Yes	No	Yes	220V RAC
	Trasparent	Yes	Yes	Yes	110V RAC
	Trasparent	Yes	Yes	Yes	220V RAC

NB: To have full performance and to guarantee the IP 65 level of protection, it is essential to assemble connectors with the supplied seals and with screw properly installed.

EB - ORDERING PART SECTION



ORDER CODE

	QUICK CODE OR DESCRIPTION	COIL QUICK CODE OR DESCRIPTION
INLET SECTION		
MANIFOLD		
SPOOL SECTION 1		
FLANGEABLE VALVE SECTION 1		
SPOOL SECTION 2		
FLANGEABLE VALVE SECTION 2		
SPOOL SECTION 3		
FLANGEABLE VALVE SECTION 3		
SPOOL SECTION 4		
FLANGEABLE VALVE SECTION 4		
SPOOL SECTION 5		
FLANGEABLE VALVE SECTION 5		
SPOOL SECTION 6		
FLANGEABLE VALVE SECTION 6		
SPOOL SECTION 7		
FLANGEABLE VALVE SECTION 7		
SPOOL SECTION 8		
FLANGEABLE VALVE SECTION 8		
COILS		
OPTIONS		
OPTIONS		