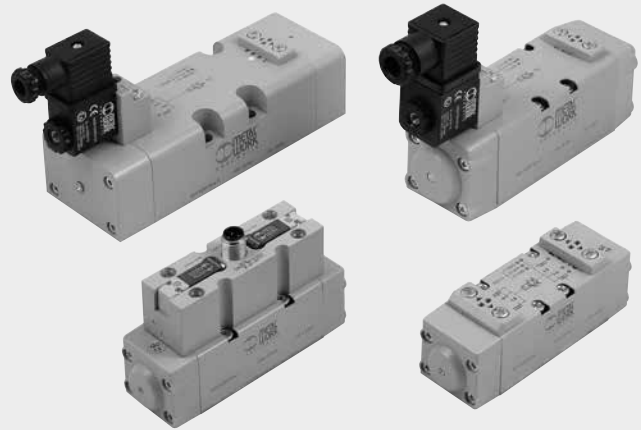


VALVES ISO 5599/1, SERIES IPV-ISV



The assembly surface dimensions of ISO1, ISO2 and ISO3 valves are to ISO5599-1. They are available in the 5-way versions with 2 and 3 positions and with pneumatic or solenoid actuation.



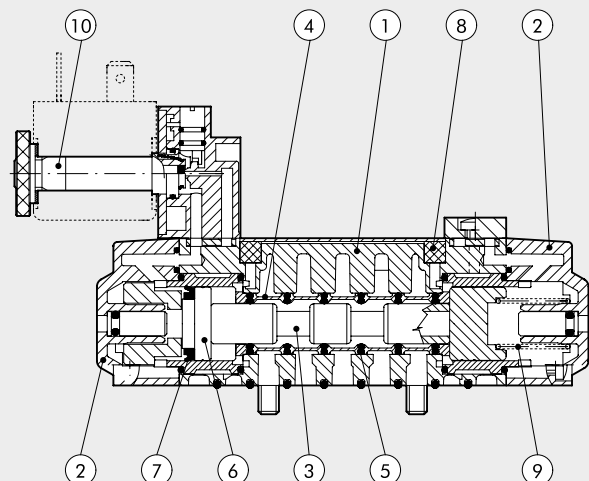
VALVES

VALVES ISO 5599/1, SERIES IPV-ISV

TECHNICAL DATA	ISO 1	ISO 2	ISO 3
Fluid	Filtered air without lubrication; lubrication, if used, must be continuous		
Operating pressure:	bar		
• monostable	Vacuum to 10 pneumatic / 2.5 to 10 solenoid/pneumatic		
• bistable	Vacuum to 10 pneumatic / 1 to 10 solenoid/pneumatic		
• pilot-assisted	Vacuum to 10		
Minimum pilot pressure	bar		
Operating temperature range	°C		
Nominal diameter	mm		
Conductance C	Nl/min · bar		
Critical ratio b	bar/bar		
Flow rate at 6 bar ΔP 0.5 bar	Nl/min		
Flow rate at 6 bar ΔP 1 bar	Nl/min		
Installation	In any position (vertical assembly is not recommended for bistable valves subjected to vibration)		
Assembly	On single and manifold bases according to ISO 5599/1		
Recommended lubricant	ISO and UNI FD 22		
Solenoid pilot	to CNOMO/in-line pilot / M12		to CNOMO
Manual	Bistable on solenoid pilot Monostable on valve body		
Maximum coil nut torque	Nm		
Compatibility with oils	See chapter Z1		

COMPONENTS

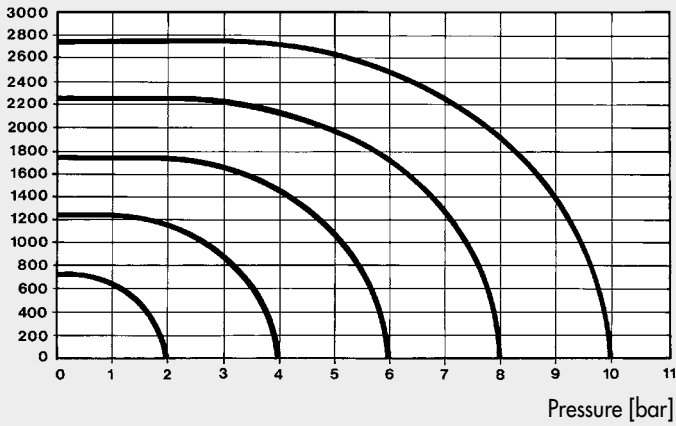
- ① VALVE BODY: Aluminium
- ② END CAP: Hostaform®
- ③ SPOOL: chemically nickel-plated aluminium
- ④ DISTANCE PLATES: plastic
- ⑤ GASKETS: NBR
- ⑥ PISTONS: Hostaform®
- ⑦ PISTON GASKET: NBR
- ⑧ FILTER: sintered bronze
- ⑨ SPRINGS: special steel
- ⑩ OPERATOR: Brass pipe – Stainless steel core



FLOW CHART

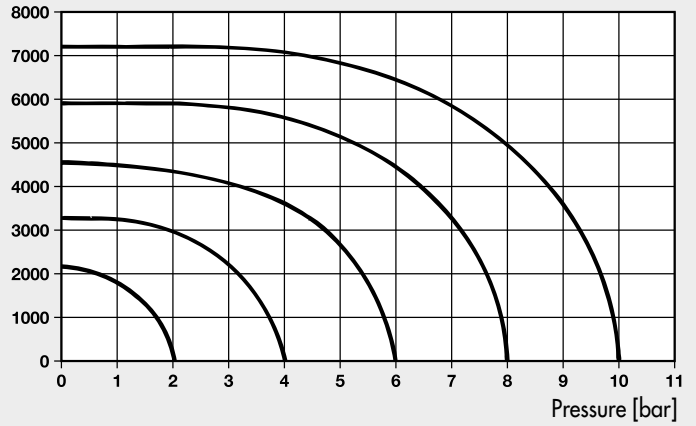
ISO 1

Flow rates [Nl/min]



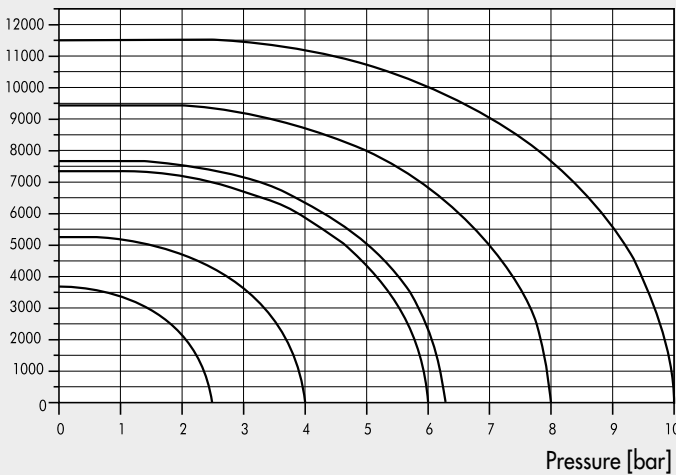
ISO 2

Flow rates [Nl/min]



ISO 3

Flow rates [Nl/min]



SYNOPTIC, SIZES AND VERSIONS

I P V		5	5	P N	S	O O
FAMILY		DIMENSIONS	FUNCTION	OPERATORS 14	RESETTING (12)	FURTHER DETAILS
IPV	ISO pneumatic	5 ISO 1	5 5/2	PN pneumatic	S mechanical springs	OO no indication
ISV	ISO solenoid/pneumatic	6 ISO 2	6 5/3	SO solenoid/pneumatic	B bistable	CC closed centres
		7 ISO 3		SE electric pilot-assisted	D differential	OC open centres
				* DO solenoid/pneumatic in line		PC pressure centres
				* DE solenoid assisted in line M12		
				● CO M12 solenoid/pneumatic		
				● CE M12 solenoid assisted		

* Only for ISO 1
 ● Only for ISO 1 and ISO 2

VALVES ISO 5599/1, PNEUMATIC SERIES IPV

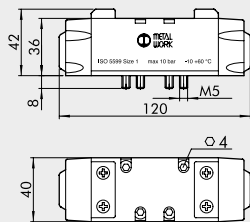
TECHNICAL DATA		ISO 1	ISO 2	ISO 3
Operating pressure	bar	Vacuum to 10		
Minimum operation pressure:				
• monostable	bar	2.5		
• bistable	bar	1		
Operating temperature range	°C	-10° to +60		
Nominal diameter	mm	7.5	12	15
Conductance C	Nl/min · bar	250	657.14	971.43
Critical ratio b	bar/bar	0.36	0.25	0.43
Flow rate at 6 bar ΔP 0.5 bar	Nl/min	700	1800	3200
Flow rate at 6 bar ΔP 1 bar	Nl/min	1100	2700	4600
Response times at 6 Bar:				
• monostable	ms	12	24	35
• bistable	ms	20	30	45
Repositioning response times at 6 Bar:				
• monostable	ms	30	43	55
• bistable	ms	20	30	45
Manual		monostable on valve body		



VALVES

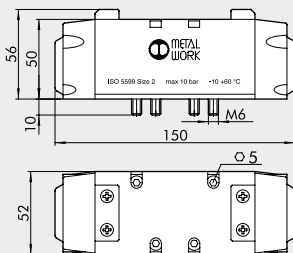
VALVES ISO 5599/1, SERIES IPV-ISV

PNEUMATIC ACTUATION ISO 1



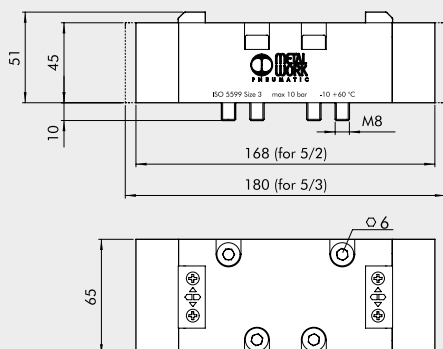
Symbol	Code	Abbrev.	Weight [g]
	7051011100	IPV 55 PNS OO	310
	7051011200	IPV 55 PNB OO	310
	7051011300	IPV 55 PND OO	310
	7051012100	IPV 56 PNS CC	310
	7051012200	IPV 56 PNS OC	310
	7051012300	IPV 56 PNS PC	310

PNEUMATIC ACTUATION ISO 2



Symbol	Code	Abbrev.	Weight [g]
	7052011100	IPV 65 PNS OO	705
	7052011200	IPV 65 PNB OO	705
	7052011300	IPV 65 PND OO	705
	7052012100	IPV 66 PNS CC	705
	7052012200	IPV 66 PNS OC	705
	7052012300	IPV 66 PNS PC	705

PNEUMATIC ACTUATION ISO 3



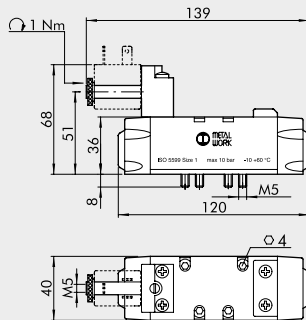
Symbol	Code	Abbrev.	Weight [g]
	7056011100	IPV 75 PNS OO	1175
	7056011200	IPV 75 PNB OO	1175
	7056011300	IPV 75 PND OO	1175
	7056012100	IPV 76 PNS CC	1290
	7056012200	IPV 76 PNS OC	1290
	7056012300	IPV 76 PNS PC	1290

VALVES ISO 5599/1, SOLENOID/PNEUMATIC, SERIES ISV

TECHNICAL DATA		ISO 1	ISO 2	ISO 3
Operating pressure:	bar			
• monostable			2.5 to 10	
• bistable			1 to 10	
• pilot-assisted			Vacuum to 10	
Minimum pilot pressure	bar		2.5	
Operating temperature range	°C		-10 to +60	
Nominal diameter	mm	7.5	12	15
Conductance C	NI/min · bar	250	657.14	971.43
Critical ratio b	bar/bar	0.36	0.25	0.43
Flow rate at 6 bar ΔP 0.5 bar	NI/min	700	1800	3200
Flow rate at 6 bar ΔP 1 bar	NI/min	1100	2700	4600
TRA / TRR monostable at 6 bar	ms	24 / 50	39 / 60	50 / 120
TRA / TRR bistable at 6 bar	ms	20 / 20	25 / 25	35 / 35
Solenoid pilot		Standards CNOMO		
Manual		Bistable on solenoid pilot Monostable on valve body		
Coils		30 mm side DIN 43650 Form A – ISO 22 mm side		
Maximum coil nut torque	Nm		1	

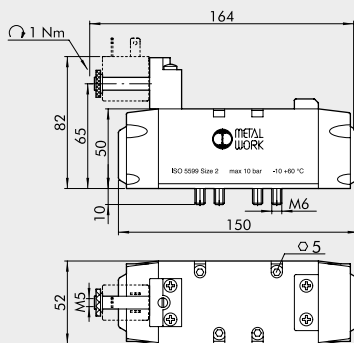


MONOSTABLE 5/2 ISO 1



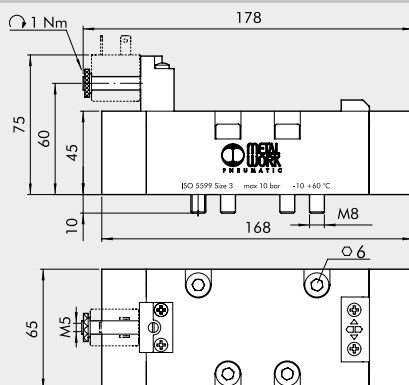
Symbol	Code	Abbrev.	Weight [g]
	7051021100	ISV 55 SOS OO	344
	7051021400	ISV 55 SES OO	344

MONOSTABLE 5/2 ISO 2



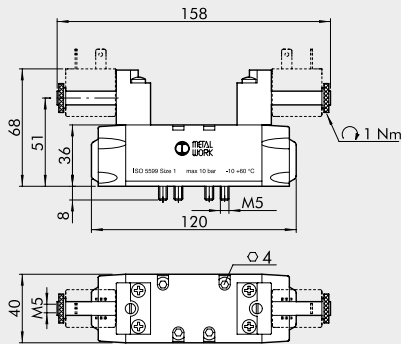
Symbol	Code	Abbrev.	Weight [g]
	7052021100	ISV 65 SOS OO	715
	7052021400	ISV 65 SES OO	715

MONOSTABLE 5/2 ISO 3



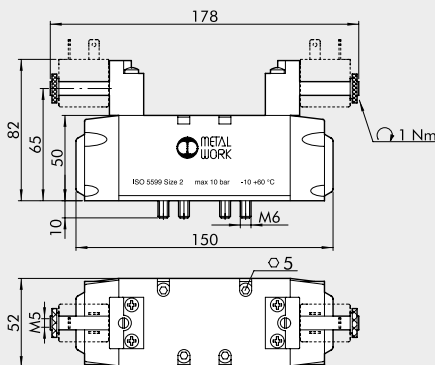
Symbol	Code	Abbrev.	Weight [g]
	7056021100	ISV 75 SOS OO	1207
	7056021400	ISV 75 SES OO	1207

BISTABLE 5/2 ISO 1 - MONOSTABLE 5/3 ISO 1



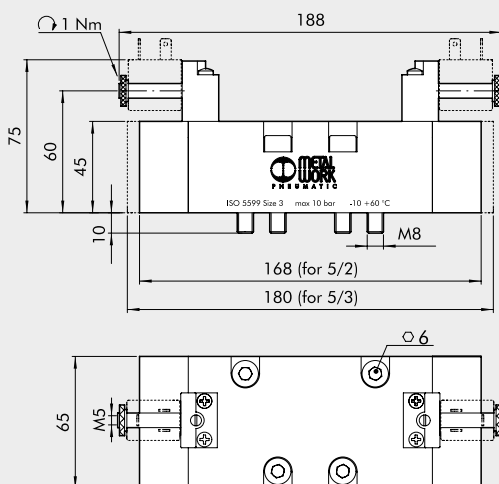
Symbol	Code	Abbrev.	Weight [g]
	7051021200	ISO 55 SOB OO	388
	7051021300	ISO 55 SOD OO	375
	7051022100	ISO 56 SOS CC	372
	7051022200	ISO 56 SOS OC	372
	7051022300	ISO 56 SOS PC	372
	7051021500	ISO 55 SEB OO	388
	7051021600	ISO 55 SED OO	375
	7051022400	ISO 56 SES CC	372
	7051022500	ISO 56 SES OC	372
	7051022600	ISO 56 SES PC	372

BISTABLE 5/2 ISO 2 - MONOSTABLE 5/3 ISO 2



Symbol	Code	Abbrev.	Weight [g]
	7052021200	ISO 65 SOB OO	740
	7052021300	ISO 65 SOD OO	710
	7052022100	ISO 66 SOS CC	720
	7052022200	ISO 66 SOS OC	720
	7052022300	ISO 66 SOS PC	720
	7052021500	ISO 65 SEB OO	740
	7052021600	ISO 65 SED OO	710
	7052022400	ISO 66 SES CC	720
	7052022500	ISO 66 SES OC	720
	7052022600	ISO 66 SES PC	720

BISTABLE 5/2 ISO 3 - MONOSTABLE 5/3 ISO 3



Symbol	Code	Abbrev.	Weight [g]
	7056021200	ISO 75 SOB OO	1230
	7056021300	ISO 75 SOD OO	1230
	7056022100	ISO 76 SOS CC	1355
	7056022200	ISO 76 SOS OC	1355
	7056022300	ISO 76 SOS PC	1355
	7056021500	ISO 75 SEB OO	1230
	7056021600	ISO 75 SED OO	1230
	7056022400	ISO 76 SES CC	1355
	7056022500	ISO 76 SES OC	1355
	7056022600	ISO 76 SES PC	1355

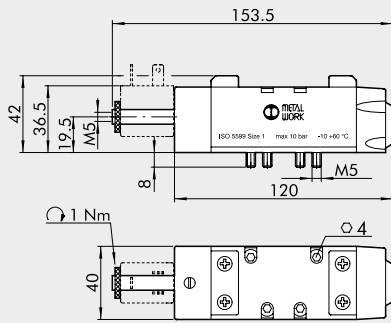
VALVES ISO 5599/1, PNEUMATIC, SERIES ISV WITH IN-LINE SOLENOID PILOT

TECHNICAL DATA

TECHNICAL DATA		ISO 1
Operating pressure:	bar	
• monostable		2.5 to 10
• bistable		1 to 10
• pilot-assisted		Vacuum to 10
Minimum pilot pressure	bar	2.5
Operating temperature range	°C	-10 to +60
Nominal diameter	mm	7.5
Conductance C	NI/min · bar	250
Critical ratio b	bar/bar	0.36
Flow rate at 6 bar ΔP 0.5 bar	NI/min	700
Flow rate at 6 bar ΔP 1 bar	NI/min	1100
TRA / TRR monostable at 6 bar	ms	24 / 50
TRA / TRR bistable at 6 bar	ms	20 / 20
Solenoid pilot		In line pilot
Manual		Bistable on solenoid pilot
Coils		30 mm side DIN 43650
		Form A – ISO
		22 mm side
Maximum coil nut torque	Nm	1

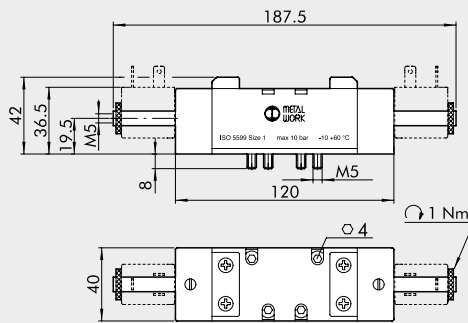


MONOSTABLE 5/2 ISO 1



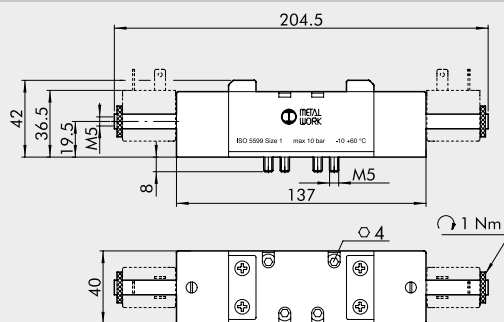
Symbol	Code	Abbrev.	Weight [g]
	7053021100	ISV 55 DOS OO	396
	7053021400	ISV 55 DES OO	396

BISTABLE 5/2 ISO 1



Symbol	Code	Abbrev.	Weight [g]
	7053021200	ISV 55 DOB OO	450
	7053021500	ISV 55 DEB OO	450

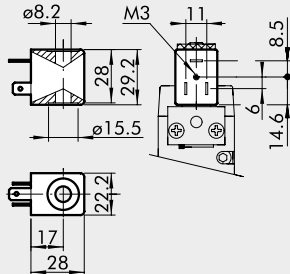
MONOSTABLE 5/3 ISO 1



Symbol	Code	Abbrev.	Weight [g]
	7053022100	ISV 56 DOS CC	517
	7053022200	ISV 56 DOS OC	516
	7053022300	ISV 56 DOS PC	516
	7053022400	ISV 56 DES CC	517
	7053022500	ISV 56 DES OC	516
	7053022600	ISV 56 DES PC	515

COILS AND CONNECTORS FOR ISO 5599/1 SOLENOID VALVES SERIES ISV

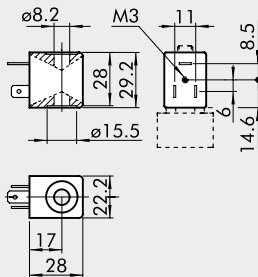
COILS SIDE 22 mm



- Voltage tolerance: -10% to + 15%
- Insulation class: F155
- Degree of protection: IP65 EN60529 with connector
- Avoid prolonged exposure to the atmospheric agents
- Coil temperature 100% ED: 55°C at 20°C – Ambient temperature
- According to Atex 2014/34/EU rule, group 2, category 3 GD

Code	Abbrev.	Nominal voltage	Absorption	
			Inrush	Holding
W0215000151	Coil 22 Ø 8 BA 2W-12VDC	12Vcc	2W	2W
W0215000101	Coil 22 Ø 8 BA 2W-24VDC	24Vcc	2W	2W
W0215000111	Coil 22 Ø 8 BA 3.5VA-24VAC	24V 50/60Hz	5.3VA	3.5VA
W0215000121	Coil 22 Ø 8 BA 3.5VA-110VAC	110V 50/60Hz	5.3VA	3.5VA
W0215000131	Coil 22 Ø 8 BA 3.5VA-220VAC	220V 50/60Hz	5.3VA	3.5VA

"UL" AND "CSA" COILS 22 mm

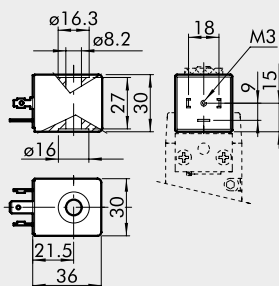


- Voltage tolerance: -10% to + 15%
- Insulation class: F155
- Degree of protection: IP65 EN60529 with connector
- Avoid prolonged exposure to the atmospheric agents
- Coil temperature 100% ED: 55°C at 20°C – Ambient temperature

Code	Abbrev.	Nominal voltage	Absorption	
			Inrush	Holding
W0215000251	Coil 22 Ø 8 BA 2W-12VDC UR	12Vcc	2W	2W
W0215000201	Coil 22 Ø 8 BA 2W-24VDC UR	24Vcc	2W	2W
W0215000211	Coil 22 Ø 8 BA 3.5VA-24VAC UR	24V 50/60Hz	5.3VA	3.5VA
W0215000221	Coil 22 Ø 8 BA 3.5VA-110VAC UR	110V 50/60Hz	5.3VA	3.5VA
W0215000231	Coil 22 Ø 8 BA 3.5VA-220VAC UR	220V 50/60Hz	5.3VA	3.5VA



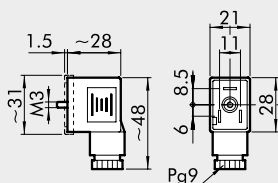
COILS SIDE 30 mm



- Electric contact DIN43650 shape A – ISO 4400
- Voltage tolerance: -10% + 10%
- Insulation class: F155
- Degree of protection: IP65 EN60529 with connector
- Avoid prolonged exposure to the atmospheric agents
- According to Atex 2014/34/EU rule, group 2, category 3 GD

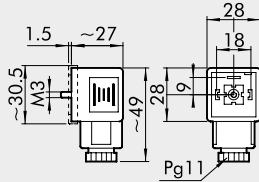
Code	Abbrev.	Nominal voltage	Absorption	
			Inrush	Holding
W0210010100	Coil 30 Ø 8 2W-24VDC	24Vcc	5W	2W
W0210011100	Coil 30 Ø 8 3.5VA-24VAC	24V 50/60Hz	10VA	3.5VA
W0210012100	Coil 30 Ø 8 3.5VA-110VAC	110V 50/60Hz	10VA	3.5VA
W0210013100	Coil 30 Ø 8 3.5VA-220VAC	220V 50/60Hz	10VA	3.5VA

CONNECTOR FOR COILS SIDE 22 mm



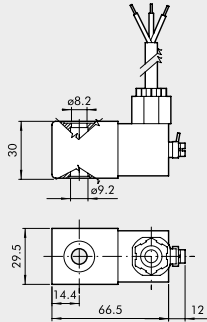
Code	Type	Colour	Ø Cable
W0970510011	Standard	Black	PG9
W0970510012	LED 24V	Transparent	PG9
W0970510013	LED 110V	Transparent	PG9
W0970510014	LED 220V	Transparent	PG9
W0970510015	LED + VDR 24V	Transparent	PG9
W0970510016	LED + VDR 110V	Transparent	PG9
W0970510017	LED + VDR 220V	Transparent	PG9
W0970510070	Atex II 2 GD	Black	PG9

CONNECTOR FOR COILS SIDE 30 mm



Code	Type	Colour	Ø Cable
W0970520033	Standard	Black	PG11
W0970520034	LED 24V	Transparent	PG11
W0970520035	LED 110V	Transparent	PG11
W0970520036	LED 220V	Transparent	PG11
W0970520037	LED + VDR 24V	Transparent	PG11
W0970520038	LED + VDR 110V	Transparent	PG11
W0970520039	LED + VDR 220V	Transparent	PG11

KIT COIL EEXM



Code	Description
0227606913	Kit for coil 30 24 VDC EEXMT5 cable 3 m
0227606915	Kit for coil 30 24 VDC EEXMT5 cable 5 m
0227608013	Kit for coil 30 24 VAC EEXMT5 cable 3 m
0227608015	Kit for coil 30 24 VAC EEXMT5 cable 5 m
0227608023	Kit for coil 30 110 VAC EEXMT5 cable 3 m
0227608025	Kit for coil 30 110 VAC EEXMT5 cable 5 m
0227608033	Kit for coil 30 230 VAC EEXMT5 cable 3 m
0227608035	Kit for coil 30 230 VAC EEXMT5 cable 5 m

According to Atex 2014/34/EU rule: II 2G Ex mb IIC T4/T5 Gb
 II 2D Ex tb IIC T130/T95 °C IP66 Db

N.B.: Supplied complete with adapter for Ø8 mm sleeve.

KIT COILS SIDE 22 IP65



Code	Description
0222100100	Kit for coil 22 - IP65

Improved IP65 protection, even after prolonged exposure to atmospheric agents.
 Applicable to valves with a technopolymer control.

NOTES