

ASCO™ Solenoid Valves

Pad Mounting Body
Direct Operated, For Subbase 1/4" or 1/2"

3/2 NC
Series
314

Features and Benefits

- Pad-mount version for valve piloting applications
- RoHS compliance
- AC/DC interchangeability
- Valves do not require a minimum operating pressure
- Large selection of seal materials providing wide chemical compatibility
- Compliance with UL and CSA standards
- The solenoid valves satisfy all relevant EU directives

General

Differential pressure See «SPECIFICATIONS» [1 bar = 100 kPa]
Maximum viscosity 65 cSt (mm²/s)
Response time 5 - 25 ms

Fluids (*)	Temperature range (TS)	Seal materials (*)
air, inert gas, water, oil	-25°C to +80°C	NBR (nitrile)

Materials of components in contact with fluid

(*) Ensure that compatibility of materials in contact with fluids is verified.

Body	Brass
Shading coil	Copper
Core tube	Stainless steel
Core and plugnut	Stainless steel
Springs	Stainless steel
Seals	NBR
Disc	NBR
Upper disc	FPM
Core guide	POM

Electrical characteristics

Coil insulation class F
Connector Spade plug (cable Ø 6-10 mm)
Connector specification ISO 4400 / EN 175301-803, form A
Electrical safety IEC 335
Electrical enclosure protection Moulded IP65 (EN 60529)
Standard voltages DC (=) : 24V - 48V
 (Other voltages and 60 Hz on request) AC (~) : 24V - 48V - 115V - 230V/50 Hz

Operator ambient temperature range (TS) (°C)	Power ratings				Replacement coil ⁽¹⁾	
	Inrush ~ (VA)	Holding ~ (VA) (W)		Hot/Cold = (W)	~ 230 V/50 Hz	= 24 V DC
		(VA)	(W)			
-25 to +55	50	25	10.1	8,5/11,6	238613-059	238713-006

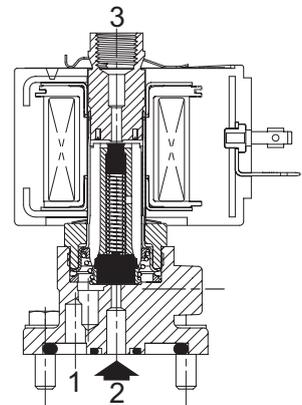
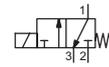
⁽¹⁾ All 238 basic numbers are UL & CSA approved and marked with the UR (recognised component) & CSA logos.

Options

- **Seals and disc (*)** - FPM (fluoroelastomer):
 (fluid temperature range) ⁽²⁾ -15°C to +120°C (AC)
 -15°C to +90°C (DC)
- Oxygen service, FPM disc and seals, see "15-DIGIT PRODUCT CODE"
- Connector with visual indication and peak voltage suppression or with cable length of 2 m
- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU (See page: 2)

(*) Ensure that compatibility of materials in contact with fluids is verified.

⁽²⁾ The minimum ambient temperature of the solenoid valve is determined by the limitations of minimum temperature indicated.



Specifications

Pipe size	Orifice size	Flow coefficient		Operating pressure differential (bar)						Power coil (W)		Dimensions / Type (1)	PRODUCT CODE									
				Kv			Max. (PS)						Brass	Voltage code								
		2 → 1	1 → 3	Min.	Air (*)		Water (*)		Oil (*)					24 V/50 Hz	48 V/50 Hz	115 V/50 Hz	230 V/50 Hz	24 V/DC	48 V/DC			
		(mm)	(m³/h)(l/min)		(m³/h)(l/min)	~	=	~	=				~							=		
Without manual operator																						
NC - Normally closed, NBR seal and disc																						
Pad mounting	1.2	0.04	0.7	0.05	0.8	0	20	17	20	17	20	17	10.1	11.6	01	R314K034S1N00	FL	FR	FT	F8	F1	F9
	2.4	0.13	2.2	0.17	2.8	0	14	10	14	8	13	6	10.1	11.6	01	R314K035S1N00						
	3.2	0.22	3.7	0.17	2.8	0	10	6	10	6	6.5	4.5	10.1	11.6	01	R314K036S1N00						
	4	0.43	7.1	0.17	2.8	0	5	3	5	3	5	3	10.1	11.6	01	R314K130S1N00						
	5.6	0.60	10	0.17	2.8	0	2.5	1.7	2.5	1.7	2.5	1.7	10.1	11.6	01	R314K131S1N00						
	7.1	0.73	12.1	0.17	2.8	0	1.7	1	1.7	1	1.7	1	10.1	11.6	01	R314K132S1N00						
With maintained manual operator																						
NC - Normally closed, NBR seal and disc																						
Pad mounting	1.2	0.04	0.7	0.05	0.8	0	20	17	20	17	20	17	10.1	11.6	01	R314K034S1N01	FL	FR	FT	F8	F1	F9
	2.4	0.13	2.2	0.17	2.8	0	14	10	14	8	13	6	10.1	11.6	01	R314K035S1N01						
	3.2	0.22	3.7	0.17	2.8	0	10	6	10	6	6.5	4.5	10.1	11.6	01	R314K036S1N01						
	4	0.43	7.1	0.17	2.8	0	5	3	5	3	5	3	10.1	11.6	01	R314K130S1N01						
	5.6	0.60	10	0.17	2.8	0	2.5	1.7	2.5	1.7	2.5	1.7	10.1	11.6	01	R314K131S1N01						
	7.1	0.73	12.1	0.17	2.8	0	1.7	1	1.7	1	1.7	1	10.1	11.6	01	R314K132S1N01						

(*) Ensure that compatibility of materials in contact with fluids is verified.
 (1) For dimensions, see drawing(s) for each construction type on the following page(s).

PRODUCT CODE

R 314 K 034 S1 N00 F1

Thread connection
R = Pad mounting

Product series
314

Revision letter
K = Initial release

Valves version

Electrical interface & explosion proof options

S1 = With spade plug connector

MV = Steel enclosure, M20 cable gland, IECEx/ATEX
 II 2G Ex eb mb IIC Gb/II 2D Ex tb IIIC Db, zone 1-21 (equivalent to EM prefix)⁽²⁾

MT = Steel enclosure, 20 mm conduit, IECEx/ATEX
 II 2G Ex eb mb IIC Gb/II 2D Ex tb IIIC Db, zone 1-21 (equivalent to EMET prefix)⁽²⁾

MN = Steel enclosure, 1/2 NPT conduit, IECEx/ATEX
 II 2G Ex eb mb IIC Gb/II 2D Ex tb IIIC Db, zone 1-21 (equivalent to EMT prefix)⁽²⁾

MW = AISI 316L enclosure, M20 cable gland, IECEx/ATEX
 II 2G Ex eb mb IIC Gb/II 2D Ex tb IIIC Db, zone 1-21 (equivalent to WSEM prefix)⁽²⁾

MU = AISI 316L enclosure, 20 mm conduit, IECEx/ATEX
 II 2G Ex eb mb IIC Gb/II 2D Ex tb IIIC Db, zone 1-21 (equivalent to WSEMET prefix)⁽²⁾

MS = AISI 316L enclosure, 1/2 NPT conduit, IECEx/ATEX
 II 2G Ex e mb IIC Gb T3, II 2D Ex tb IIIC Db IP66/IP67, zone 1-21 (equivalent to WSEMT prefix)⁽²⁾

A7 = Moulded enclosure, epoxy encapsulated, integrated cable, IECEx/ATEX
 II 2G Ex mb IIC Gb / II 2D Ex mb IIIC Db, zone 1-21 (equivalent to PV prefix)⁽²⁾

SG = Moulded coil with connector, epoxy encapsulated, ATEX
 II 3GD Ex ec IIC Gc / II 3GD Ex tc IIIC Dc, zone 22 (equivalent to SG prefix)⁽²⁾

Configurator - CAD Files

Voltage - class

FL = 24 V / 50 Hz - class F

FR = 48 V / 50 Hz - class F

FT = 115 V / 50 Hz - class F

F8 = 230 V / 50 Hz - class F

F1 = 24 V DC - class F

F9 = 48 V DC - class F

Options

Without manual operator

N00 = NBR disc and seals

V00 = FPM disc and seals

VN0 = FPM disc and seals for Oxygen service

With maintained manual operator

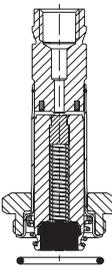
N01 = NBR disc and seals

V01 = FPM disc and seals

VN1 = FPM disc and seals for Oxygen service

⁽²⁾ Search prefix in Emerson.com/asco to get detailed technical information.
 Please note that the valve pressure ratings with some of the ATEX enclosures will be reduced.
 To obtain the correct pressure rating please check the landing pages of the "3-Way Solenoid Valve DIN Configurator".

01480GB-2022/R01
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		Spare parts kits no. (*)							
		AC (~)				DC (=)			
			NBR	FPM	FPM (oxygen)		NBR	FPM	FPM (oxygen)
	R314K034	M200070	N00	V00	VN0	M200066	N00	V00	VN0
	R314K035/036	M200071	N00	V00	VN0	M200067	N00	V00	VN0
	R314K130/131/132	M200071	N00	V00	VN0	M200067	N00	V00	VN0

(*) Ensure that compatibility of materials in contact with fluids is verified.

Installation

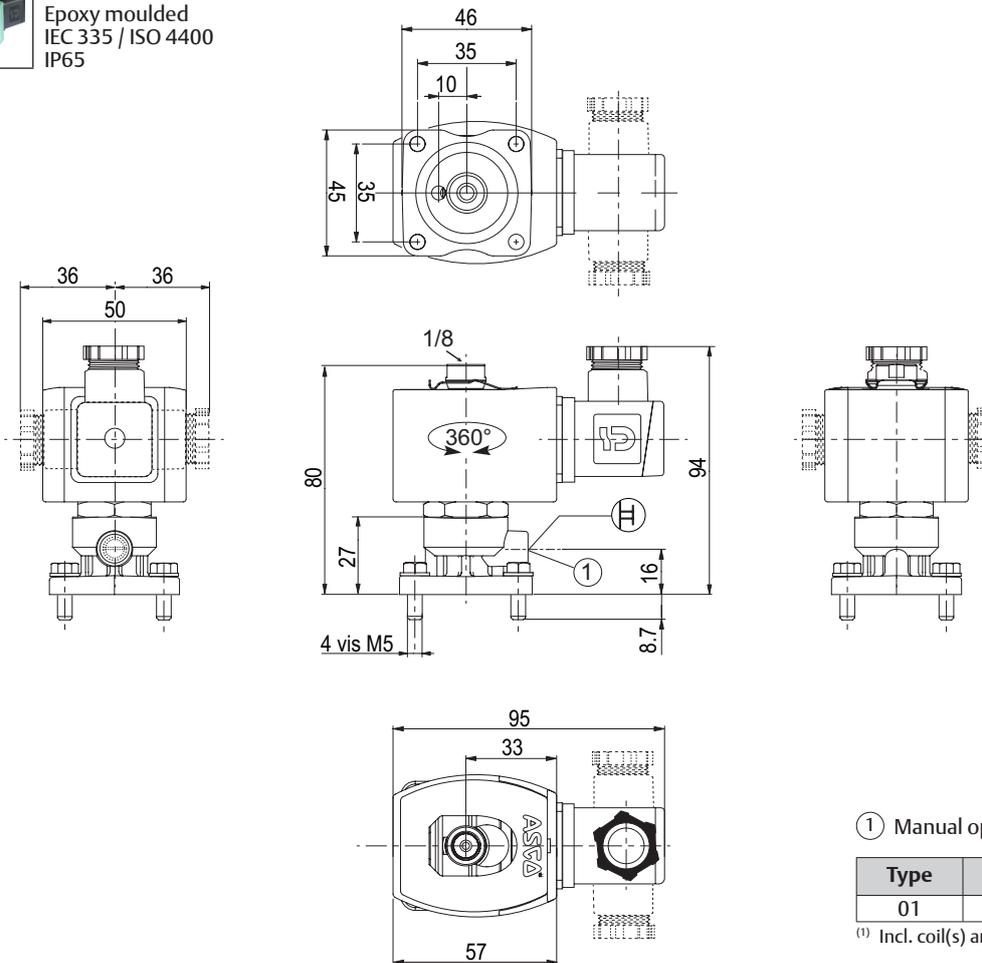
- The solenoid valves can be mounted in any position without affecting operation
- Installation/maintenance instructions are included with each valve

Dimensions (mm), Weight (kg)

Configurator - CAD Files



TYPE 01
Electrical interface "S1"
Epoxy moulded
IEC 335 / ISO 4400
IP65



① Manual operator location

Type	Weight ⁽¹⁾
01	0.56

⁽¹⁾ Incl. coil(s) and connector(s).