



**Industrial
Automation**

IMI Norgren

46xx Solenoid

- For 2/2-, 3/2-, 5/2- and 5/3-way valves
- Power consumption from 0,7 up to 12 watt
- Suited for outdoor use under critical environment conditions
- For high and low ambient temperatures
- Housing material: Aluminium anodized
- Easy installation of the solenoid
- Compact design
- Userfriendly terminal compartment with screwless terminals for wire cross-section 0,5 to 2,5 mm²
- Type of protection electively Ex d mb or Ex e mb, depending on used cable gland



Technical features

EC-type examination certificate:
PTB 02 ATEX 2085 X

Ex-Approval international:
IECEX PTB 11.0094X

Duty cycle:
100% ED

Fuse:
Integrated

Relative humidity of the air:
max. 90%

Coil insulation:
Thermic class H

Standard voltages:
DC 24 V, AC 230 V (40 ... 60 Hz)
Further voltages on request

Degree of protection (EN 60529):
IP66

Weight:
800g

Temperature:
See table

Material:
Aluminium anodized



Model overview solenoids

Model	Rated power	Electrical connection	Voltage	Rated current	Device fuse rated current	Power consumption	Protection class IP	Ex-protection (ATEX-category)	Ambient temperature / media (°C)	Circuit diagram no.	
Core tube Ø 13 mm Ø 16 mm											
4600	4650	0,7 W	1/2 NPT	24 V DC	33 mA	63 mA	IP66 (with cable gland)	II 2G Ex db mb IIC T5/T6 Gb II 2G Ex eb mb IIC T5/T6 Gb	T5: -40 ... +80 T6: -40 ... +70	1	
4601	4651	1,0 VA (1,4 W)	1/2 NPT	230 V AC	6 mA	40 mA				1,3 VA	2
4602	4652	0,7 W	M20 x 1,5	24 V DC	33 mA	63 mA				0,8 W	1
4603	4653	1,0 VA (1,4 W)	M20 x 1,5	230 V AC	6 mA	40 mA	IP66 (with cable gland)	II 2 D Ex tb IIC T130°C Db	-40 ... +80	2	
4610	4660	4 W	1/2 NPT	24 V DC	162 mA	400 mA				3,9 W	1
4611	4661	5 VA (4,5W)	1/2 NPT	230 V AC	23 mA	40 mA				5,3 VA	2
4612	4662	4 W	M20 x 1,5	24 V DC	162 mA	400 mA	IP66 (with cable gland)	II 2G Ex db mb IIC T4/T6 Gb II 2G Ex eb mb IIC T4/T6 Gb	T4: -40 ... +80 T6: -40 ... +55	1	
4613	4663	5 VA (4,5W)	M20 x 1,5	230 V AC	23 mA	40 mA				5,3 VA	2
4620	4670	8 W	1/2 NPT	24 V DC	369 mA	800 mA				8,9 W	1
4621	4671	9 VA (8 W)	1/2 NPT	230 V AC	43 mA	80 mA	IP66 (with cable gland)	II 2G Ex db mb IIC T4/T6 Gb II 2G Ex eb mb IIC T4/T6 Gb	T4: -40 ... +70 T6: -40 ... +40	2	
4622	4672	8 W	M20 x 1,5	24 V DC	369 mA	800 mA				8,9 W	1
4623	4673	9 VA (8 W)	M20 x 1,5	230 V AC	43 mA	80 mA				10 VA	2
4630	4680	11 W	1/2 NPT	24 V DC	475 mA	1000 mA	IP66 (with cable gland)	II 2G Ex db mb IIC T4/T5 Gb II 2G Ex eb mb IIC T4/T5 Gb	T4: -40 ... +50 T5: -40 ... +40	1	
4631	4681	13 VA (13,1 W)	1/2 NPT	230 V AC	66 mA	125 mA				15,2 VA	2
4632	4682	11 W	M20 x 1,5	24 V DC	475 mA	1000 mA				11,4 W	1
4633	4683	13 VA (13,1 W)	M20 x 1,5	230 V AC	66 mA	125 mA	IP66 (with cable gland)	II 2 D Ex tb IIC T130°C Db	-40 ... +50	2	

The mentioned solenoids are among others compatible with the following Valve series.

Solenoid	Valve series
4600/4601/4602/4603	97105, 98025
4610/4611/4612/4613	26360, 80207, 95000, 96000
4620/4621/4622/4623	95000, 95100, 96000
4630/4631/4632/4633	91000, 95000, 95100, 96000
4660/4661/4662/4663	24011, V81, V82, V87
4670/4671/4672/4673	24011, 25003, 95000, 95100, 96000, 98015, V81, V82, V87
4680/4681/4682/4683	21023, 21025, 25003, 95000, 95100, 96000

Item numbers for international approvals

Country/Approvals	Code
Europe/ATEX	Standard
International/IECEx	Standard
China/NEPSI	-01
Brasil/INMETRO	-02
Korea/KOSHA	-03
Russia, Kazakhstan & Belarus/TR-CU 012	-04
India/CCOE	Standard
Taiwan/ITRI	Standard

Example: 0000000463002400-03
(Solenoid: 4630; Voltage 24 V DC; Approval: KOSHA)

**Accessories
Electrical connection**

Cable gland
Protection class (ATEX) Ex e, Ex d

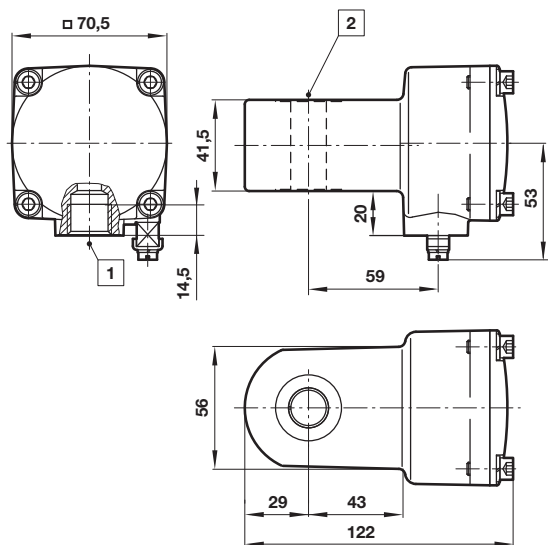
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Thread	Cabel Ø (mm)	Materials	Protection class (ATEX)	Model
M20 x 1,5	5,0 ... 14,0	Nickel plated brass	II 2 GD Ex e	0589654
M20 x 1,5	10 ... 14	Nickel plated brass	II 2 GD Ex d	0588851
1/2 NPT	7,5 ... 11,9	Nickel plated brass	II 2 GD Ex d	0588925
M20 x 1,5	9 ... 13	Stainless steel 14571 (316 Ti)	II 2 GD Ex e	0589385
M20 x 1,5	7 ... 12	Stainless steel 14404 (316 L)	II 2 GD Ex d	0589395
M20 x 1,5	10 ... 14	Stainless steel 14404 (316 L)	II 2 GD Ex d	0589387



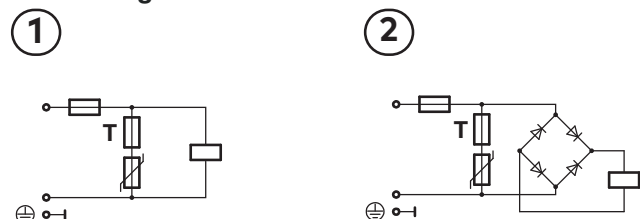
Dimensions - Solenoid

Dimensions in mm
Projection/First angle



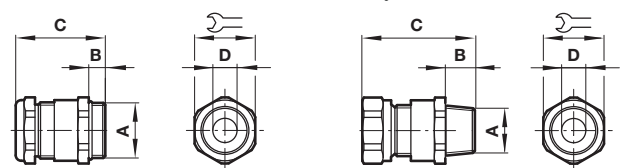
- 1 M20 x 1,5 or 1/2 NPT
- 2 Ø 16 or 13 (with spacer tube)

Circuit diagrams



Cable gland

Only for 0588925



A	B	C	ø D	⌀	Model
M20 x 1,5	6,5	35,5	5,0 ... 14,0	24	0589654
M20 x 1,5	6,5	27,5	9 ... 13	22	0589385
M20 x 1,5	14	39	10 ... 14	24	0588851
1/2 NPT	15	58	7,5 ... 11,9	24	0588925
M20 x 1,5	14	39	7 ... 12	24	0589395
M20 x 1,5	10	34	10 ... 14	24	0589387

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »Technical features/ data«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult Norgren.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.