# IGS-EL-010(0)



National Iranian Gas Co. مديريت پژوهش وفنآوري Research and Technology Management



Specification for:

## **Non-Industrial Domestic Switches**

سویچ های خانگی

**APPROVED** 

#### NIGC, STANDARDIZATION DIV.

#### **FOREWORD**

This standard is intended to be mainly used by **NIGC** and contractors and has been prepared on interpretation of recognized standards, technical documents, knowledge backgrounds and experiences in gas industries at national and international levels.

Iranian Gas Standards (**IGS**) are prepared , reviewed and ammended by technical standard committees within NIGC Standardization Div. and submitted to the **NIGC**'s "**STANDARDS COUNCIL**" for approval .

**IGS** Standards are subject to revision , amendment or withdrawal , if required , thus the latest edition of **IGS** shall be checked/inquired by **NIGC** users .

This standard must not be modified or altered by the end users within **NIGC** and her contractors. Any deviation from normative references and/or well known manufacturers specifications must be reported to Standardization div.

Any comments from concerned parties on **NIGC** distributed **IGS** are welcome to technical standards committees and will receive serious attention and consideration should a revision to standards is recommended.

### **GENERAL DEFINITIONS:**

Throughout this standard the following definitions, where applicable, should be followed:

- 1- "STANDARDIZATION DIV." has been organized to deal with all aspects of industrial standards in NIGC. Therefore, all queries for clarification or amendments are requested to be directed to the mentioned div.
- 2- "COMPANY": refers to national iranian gas company.
- 3- "SUPLIER": refers to a firm who will supply the service, equipment or material to igs specification whether as the prime producer or manufacturer or a trading firm.
- 4-"SHALL": is used where a provision is mandatory.
- 5-"SHOULD": is used where a provision is advised only.
- 6-"MAY": is used where a provision is completely discretionary.

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#### امورتدوين استانداردها

## بيشگفتار

- ۱- این استاندارد/دستورالعمل بمنظور استفاده اختصاصی در شرکت ملّی گاز ایران و شرکتهای فرعی وابسته تهیه شده است.
- ۲- شرکت ملّی گاز ایران در مورد نیازهای عمومی از استانداردهای وزارت نفت (IPS)و در موردنیازهای اختصاصی از استانداردهای اختصاصی
   خود(IGS) استفاده می نماید.
- ۳- استانداردهای شرکت ملّی گازایران (IGS) توسط کمیته های تخصصی استاندارد متشکل از کارشناسان بخش های مختلف و یا مشاور تهیه می
   شود و توسط شورای استاندارد (منتخب هیئت مدیره شرکت ملی گازایران) به تصویب میرسند.
- ۴- در تنظیم متن استانداردهای (IGS) از کلیه منابع شناخته شده استانداردی، اطلاعات فنی تخصصی مربوط به صنایع گاز دنیا،مشخصات فنی تولیدات سازندگان معتبر جهانی و نیزاز نتیجه تحقیقات و تجربیات کارشناسان و متخصصان داخلی بر حسب مورد استفاده می شود. همچنین بمنظور استفاده هرچه بیشتر از تولیدات داخلی قابلیت های سازندگان داخلی نیزمورد توجه قرارمیگیرد.
  - ۵- استانداردها از طریق پایگاه اینترنتی شرکت ویالوح فشرده (CD) در اختیار واحدها و کاربران قرار می گیرد .
- ۶- استانداردها بطور متوسط هر ۵ سال یکبار و پادرصورت ضرورت زودتر،مورد بازنگری وبروزرسانی قرار میگیرند. بنابراین کاربران بایـد همیـشه آخرین نگارش را مورد استفاده قرار دهند.
- ۷- هرگونه نظر و یا پیشنهاد اصلاح در مورد استانداردها مورداستقبال وبررسی قرار خواهد گرفت و در صورت تأثید، استانداردمربوطه نیزموردتجدیدنظرقرارخواهدگرفت.

## تعاريف عمومي

درمتن استانداردهای (IGS)از تعاریف واصطلاحات زیراستفاده مشود.

- ۱- "شركت" (COMPANY): منظور از شركت "شركت ملى گازاير ان" وياشركتهاى فرعى وابسته ميباشد.
- ۲- "فروشنده"(SUPPLIER/VENDOR): به فردیاموسسه ای اطلاق میگردد که تعهدی رانسبت به شرکت تقبل نموده است.
  - ۳- "خريدار" (PURCHASER): منظوراز خريدار "شركت ملى گازايران" وياشركتهاي فرعي وابسته ميباشد.
    - ۴- "SHALL": درمواردی بکاربرده میشودکه انجام خواسته موردنظراجباری است
  - ۵- "SHOULD": درمواردی بکاربرده میشود که انجام خواسته موردنظر ترجیحی و درعین حال اختیاری است
    - ۶- "MAY": درمواردی بکاربرده میشود که انجام کاربه شکل موردبحث نیز قابل قبول میباشد

\*آدرس پایگاه اینترنتی (http://igs.nigc.ir) ، آدرس الکترونیکی (nigcigs@nigc.ir)

## NON-INDUSTRIAL DOMESTIC SWITCHES

## IGS-EL-010

1- SWITCH, DOMESTIC, 250V AC-/D C., TO IEC 669 –1 AND BS 3676, FLUSH MOUNTING, ROCKER OPERATED, RECTANGULAR SHAPE, COVER PLATE MADE OF MOULDED INSULATING MATERIAL TO SECTION 3 OF BS 3676, IVORY COLOUR, PROVIDED WITH AT LEAST TWO FIXING SCREWS ON ITS MOUNTING PLATE.

## SINGLE POLE, ONE WAY, ONE GANG

<b>MESC</b>	UNIT	<u>DES.</u>
1-1	NO	5A
1-2	"	15 A
	SINGLE POLE, ONE WAY , TWO GANG	
1-3	NO	5A
1-4	"	15 A
	SINGLE POLE, ONE WAY, THREE GANG	
1-5	"	5 A
1-6	"	15A
	SINGLE POLE, TWO WAY, ONE GANG	
1-7	66	5 A
1-8	66	15 A
	SINGLE POLE, TWO WAY, TWO GANG	
1-9	"	5A
1-10	66	15 A

SUPPLIERS: M.K. MEM, SIEMENS. EQUIVALEN.

2- SWITCH , DOMESTIC , 250 V AC./D.C , 10A , TO IEC 669-1 , AND DIN 49200

FLUSH MOUNTING, ROCER OPERATED, RECTANGULAR SHAPE, COVER PLATE, MADE OF A MOULDED INSULATING MATERIAL TO DIN 49200, IVORY COLOUR, WITHOUT FIXING SCREWS ON ITS MOUNTING PLATE (SUITABLE FOR ROUND SWITCH BOXES).

<b>MESC</b>	<u>UNIT</u>	<u>DES.</u>
2-1	NO	SINGLE POLE , ONE WAY , ONE GANG
2-2	66	SINGLE POLE , ONE WAY , TWO GANG
2-3	46	SINGLE POLE , ONE WAY , THREE GANG
2-4	46	SINGLE POLE , TWO WAY , ONE GANG
2-5	66	SINGLE POLE , TWO WAY , TWO GANG

SUPPLIERS: IRAN RASHT, ALBORZ, OR NIGC APPROVER EQUIVALENT

3- SWITCH , NON-INDUSTRIAL , 250V AC/D.C. , TO IEC 669-1 AND/OR BS 3676 , SPLASH – PROOF WITH A PROTECTIONS DEGREE OF NOT LESS THAN IP 44, SURFACE MOUNTING , ROCKER OPERATED , RECTANGULAR SHAPE , COVER PLATE MADE OF A MOULDED INSULATING MATERIAL TO SECTION 3 OF BS 3676 IVORY COLOUR, ONE POLE , ONE WAY , ONE GANG

<b>MESC</b>	<u>UNIT</u>	<u>DES.</u>
3-1	NO	10 A,SUITABLE FOR 20MM THREADED
		CONDUIT, TOP OR BOTTOM ENTRY
3-2	"	10 A, SUITABLE FOR CABLL BOTTOM, ENTRY

### SUPPLIERS: M.K. MEM, SIEMENS

4- BELL PUSH SWITCH, DOMESTIC, 250V AC/DC TO IEC 669-1 AND /OR BS 3676, FLUSH MOUNTING, ROCKER OPERATED, RECTANGULAR SHAPE, COVER PLATE MADE OF A MOULDED INSULATING MATERIAL TO SECTION 3 OF BS 3676, IVORY COLOUR, PROVIDED WITH AT LEAST TWO FIXING SCREWS ON ITS MOUNTING PLATE.

<b>MES</b>	<u>C</u> <u>UNIT</u>	DES.
4-1	NO	5A
	SUPPLIERS: IRAN RASHT, ALBORZ.	

5- BELL PUSH SWITCH, DOMESTIC, 250 V AC/DC, TO IEC 669-1 AND/OR DIN 49200, FLUSH MOUNTING, ROCKER OPERATED, RECTANGULAR SHAPE, COVER PLATE MADE OF A MOULDED INSULATING MATERIAL TO DIN 49200, IVORY COLOUR, WITHOUT FIXING SCREWS ON ITS MOUNTING PLATE. ONE POLE, ONE WAY, ONE. GANG.

<b>MESC</b>	UNIT	<u>DES</u>
5-1	NO	5A

6- SOCKET OUTLETS, DOMESTIC 250V AC TO BS 1363 FLUSH MOUNTING 2 POLE RECTANGULAR WITH EARTH CONTACT, SUITABLE FOR 3-PIN PLUGS, FITTED WITH SAFETY SHUTTER, MOULDED INSULATED MATERIAL, PLASTIC COVER PLATE, IVORY COLOUR.

SUPPLIER : MK, MEM , SIEMENS, OR NIGC APROVER EQUIVALENT

<b>MESC</b>	<u>UNIT</u>	<u>DES</u>
6-1	NO	13A ONE GANG

7- SOCKET OUTLETS, DOMESTIC 250V AC TO IEC 83 AND/OR DIN 49440 & VDE 0620 FLUSH MOUNTING, 2 POLE ROUND, WITH SIDE EARTHING CONTACTS, RECTANGULAR SHAPE COVER & FLUSH PLATE 80 X 80 MM OF MOULDED INSULATING MATERIAL, IVORY COLOUR,

<b>MESC</b>	<u>UNIT</u>	<u>DES</u>
7-1	NO	10/16A . ONE GANG

8- SWITCHED SOCET-OUTLET, NON-INDUSTRIAL, 250V AC/DC, TO BS 1363, FLUSH MOUNTING, SINGLE POLE SWITCHED, WITH EARTHING CONTACTS, RECTANGULAR SHAPE SUITABLE FOR 3-PIN PLUGS, FITTED WITH SAFETY SHUTTER, MOULEDE INSULATED MATERIAL, PLASTIC COVER PLATE, IVORY COLOUR.

<b>MESC</b>	<u>UNIT</u>	<u>DES</u>
8-1	NO	13A,ONE WAY, ONE GANG
8-2	NO	13A ,ONE WAY,TWO GANG

- 9- SWITCHED SOCKET-OUT LET ,NON- INDUSTRIAL, 250V AC/DC, TO DIN 49440 & VDE 0620, FLUSH MOUNTING, SINGLE, POLE SWITCHED, WITH SIDE EARTHING CONTACTS, ROUND POLE, SUITABLE FOR 2-PIN PLUGS, RECTANGULAR SHAPE COVER & FLUSH PLATE MADE OF A MOULDED INSULATED MATERIAL, PLASTIC COVER PLATE, IVORY COLOUR.
- 9-1 10/16A, ONE WAY, ONE GANG
- 9-2 10/16A, ONE WAY TWO GANG
- 10- SOCKET OUTLET, FOR ELECTRIC SHAVERS 220/240V AC,FOR USE IN BATH ROOMS, TO IEC 742 FLUSH MOUNTING, WITH ISOLATING TRANS FORMER AND EARTHED SCREEN BETWEEN PRIMARY AND SECONDARY WINDINGS FITTED WITH SELF RESETTING THERMAL TIP, SUITABLE FOR ROUND FLAT PIN PLUGS.

#### 10-1 SINGLS VOLTAGE

- 11- SOCKET-OUTLET, FLUSH MOUNTING, TWO POLE, SQUARE PATTE RN, BASE & COVER MADE OF MOULDED INSULATED MATERIAL. IVORY COLOUR.
- 11-1 FOR TELEPHONE CONNECTION, ONE GANG MARKED WITH TELEPHON HANDLE
- 11-2 FOR TV ANTENNA CONNECTION , ONE GANG MARKED WITH"T,V."

  SUPPLIER: RGI PRODUCTS, TEHRAN, IRAN.
- 12- TV CO. AXIL SOCKET OUTLET, FLUSH MOUNTING, SQUARE PATTERN, BASE & COVER MADE OF MOULDED INSULATING MATERIAL, IVORY COLOR WITH 60.3 MM FIXING CENTERS.
- 13- TELEPHON CORD-OUTLET FLUSH MOUNTING, SQUARE PATTERN, BASE & COVER MADE OF MOULDED INSULATED MATERIAL IVORY COLOR, WITH 60.3 MM FIXING CENTERS.
- 14- PLUGS, FUSED, 3PIN (2POLE & EARTHING PIN), 250V AC, TO BS 1363, 1967, RECTANGULAR PIN, WITH MOULDED INSULATING MATERIAL. FITTED WITH CARTRIDGE FUSE LINKS TO BS 1362 (25.4MM OVERALL LENGTH, AND 6.4MM END-CAP DIAMETER) IVORY COLOUR,

<b>MESC</b>	<u>UNIT</u>	<b>DES</b>
14-1	NO	13A

15- PLUGS, 2 PIN, WITH SIDE EARTHING CONTACTS, 250V AC, TO IEC 83 AND/OR DIN 49440, ROUND PIN, WITH MOULDED INSULATING MATERIAL, IVORY COLOUR.

<b>MESC</b>	<u>UNIT</u>	<b>DES</b>
15-1	NO	10/16A

16- PLUG ADAPTOR, 250V, CONVERTING 3-PIN PLUGS WITH RECTANGULAR PINS (TO BS 1363) TO 2-PIN PLUGS ROUND PINS WITH SIDE EARTHING CONTACTS (TO IEC 83 AND/OR PIN 49440) WITH MOULDED INSULATING MATERIAL, IVORY COLOUR.

MESC UNIT DES
16-1 NO 10/16 A

17- BELL , DOMESTIC, IN MOULDED INSULATING MATERIAL, SURFACE MOUNTING, IVORY COLOUR.

 MESC
 UNIT
 DES

 17-1
 NO
 12 AC/DC

18- BUZZER, DOMESTIC , IN MOULDED PLASTIC HOUSING , SURFACE MOUNTING, IVORY COLOUR

MESC UNIT DES
18-1 NO 12 AC/DC

19- BELL, INDUSTRIAL. EXPLOSION PROOF SUITABLE FOR DIV 2
AREAS, TANGENT STEEL DOME GONG CAST IRON BODY WITH
MACHINED FLANGES, W/OPENING KEY, AND TWO 20MM
CONDUIT ENTRY

MESC UNIT DES

19-1 NO 6/12 VAC GONG DIA APPROX.6 IN.

## پيوست شماره يك

- 1- SWITCH, DOMESTIC, BS 3676, IEC 669-1, FLUSH, 5, 15A
- 2- SWITCH ,DOMESTIC , DIN 49200 , IEC 669-1 ,FLUSH, 10A
- 3- SWITCH, NON-INDUSTRIAL, BS 3676 SURFACE, SPLASH-P., 10A ONE (POLE, WAY, GANG)
- 4- BELL PUSH SWITCH IEC 669-1 DOM. BS 3676, FL.,SA. ONE POLE , WAY, GANG
- 5- BELL PUSH WITCH DIN 49200, FL.,SA. ONE POLE, WAY, GANG
- 6- SOCKET, DOMESTIC DIN 49440 10/16A FLUSH MOUNTING,
- 7- SOCKET, DOMESTIC BS 1363 13A
- 8- SWITCH SOCKET-OUTLETS, BS1363 13A, FLUSH.
- 9- SWITCH SOCKET-OUTLETS, DIN 49440, 10/16A, FLUSH
- 10- SOCKET-OUTLET FOR SHAVERS
- 11- SOCKET- OUTLET, TWO PIN(TEL.,TV)
- 12- SOCKET-OUTLET, COAXIAL (TV)
- 13- TELEPHONE CORD-OUTLET.
- 14- PLUGS, BS 1363 13A
- 15- PLUGS, DIN 49449,10/16A
- 16- PLUG ADAPTOR, 3-PIN TO 2PIN + EARTHING
- 17- BELL DOMESTIC, 12VAC/DC
- 18- BUZZER, DOMESTIC, 12V AC/DC
- 19- BELL, INDUSTRIAL, FLAME PROOF