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No. P-63013/07/2016-Ord/BSF  
Government of India Ministry of Home Affairs  
Directorate General Border Security Force  
(Prov Dte: Mod Cell)  
**(Fax: 011-24367683)**

Block No.10, CGO Complex,  
Lodhi Road, New Delhi-03

Dated, the 19 July 2018

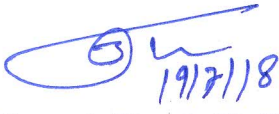
To,

DsG : AR (through LOAR), CISF, CRPF, ITBP, SSB, NSG & BPR&D

Sub: **Forwarding of QRs and Trial Directives of Binocular with Graticule (8X & 10X)**

Find enclosed herewith QRs and Trial Directives of "Binocular with Graticule (8X & 10X)" as per appendix 'A' and 'B' duly formulated & finalized by Sub group of technical experts and approved by DG BSF for your information and necessary action please.

**Encl** : As above

  
**(Bbagat Singh Tolia)**  
Dy. Inspector General (Tpt/Prov)

**Copy to :-**

1. SO (IT),  
North Block MHA,  
New Delhi : You are requested to host the above QRs and TDs on MHA website please.
2. IT Cell  
FHQ BSF,  
New Delhi : You are requested to host the above QRs and TDs on BSF website please.

**Appendix - 'A'**  
**Directorate General Border Security Force**  
**(Prov Dte: Mod Cell)**

The Sub-group of technical experts on surveillance equipment constituted by MHA vide their letter No. IV-17017/18/2001-Prov-I dated 05 Jul 2002 held its meeting at BSF HQ 12<sup>th</sup> Jan 2018 and subsequent dates to formulate the QRs of 'Binocular with Graticule (8X & 10X)'.


After detail deliberation the referred Sub-group on 10<sup>th</sup> July 2018 has finalized the QRs of 'Binocular with Graticule (8X & 10X)' as under :-


**REVISED DRAFT QRS OF BINOCULAR WITH GRATICULE ( 8X & 10X)**


User will have a choice to opt for either 8X, 10X or both.			
S/No	Parameter	Specification	
1	<b>8X with graticule</b>		
	i)	Magnification	8X
	ii)	Objective lens dia	30 mm (Min)
	iii)	FOV	7° minimum
	iv)	Weight	Less than 800 grams
2	<b>10X with Graticule</b>		
	i)	Magnification	10X
	ii)	Objective lens dia	50 mm (Max)
	iii)	FOV	5°30' minimum
	iv)	Weight	1.5 kg (Max)
<b>COMMON PARAMETERS APPLICABLE TO ALL I.E ( 8X30 &amp; 10X50)</b>			
3	Graticule Marking	Should be provided for range estimation.	
4	Close focussing distance	20 mtr or less.	
5	Diopter	± 4° or better .	
6	Inter pupillary distance	Between 56 to 74 mm.	
7	Eye Relief	Adjustable eye cups for optimum eye relief.	
8	Prism	BAK 4 or better.	
9	Optics	High quality scratch resistant.	
10	Optical coating	Fully multi coated optics for Anti Reflection and UV protection and HD water repellent lense coating.	
11	Construction	Binocular should be of Military grade and in commensuration with the Mil standard 810G/JSS-55555.	
12	Ingress protection	IP 65 or better.	
13	Non slippery body armour	Non slippery armour should be provided for better grip.	
14	Covers for OG and eye piece	Suitable covers be provided.	
15	Colour	Black or OG.	
16	Nitrogen Filling	Nitrogen should be filled in the body of binocular for moisture & fungus protection.	
17	Operating Temperature	-20 to +55 degree C.	


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18	Storage Temperature	-30 to + 60 degree C.
19	Neck Sling	A suitable and adjustable Body colour sling be provided to bear weight of 10 Kg min.
20	Carrying case/cover	Water proof soft carrying case. The colour should be olive green or black.
21	Transportation Box	Ruggedized military grade container of latest Mil Std.
22	Manual	Soft and hard copies each consisting of the following :- a) Illustration spare parts list. b) User manual with required illustration. c) Instruction on repair & maintenance. d) Exploded view of equipment.
23	Testing Instrument/Equipment	Required testing Instruments/Equipment including tools as specified by OEM be provided.
24	Registered Number	The body of binocular shall be marked with the unique tamper proof registered number.
<b>Optional (To be defined by the user department)</b>		
25	Tripod	Tripod may also be provided.

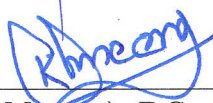
  
(Arun Kumar), IPS,  
ADG (Spl Ops) BSF

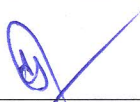
  
(Aseem Vyas), DIG  
SIW BSF


  
(R K Dahal), 2IC  
Assam Rifle

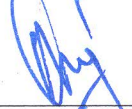
  
(Brij Kishor), Sc 'E'  
IRDE Dehradun


  
(Rajesh Ekka), Dy Dir.  
DCPW

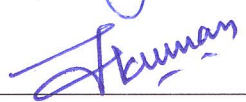
  
(K R Meena), DC  
ITBP

  
(Hari Narayan Jat), AC  
SSB


  
(Arvinder Singh), AC  
SIW BSF

  
(Insp Pushap Raj)  
52 SAG, NSG

  
(Insp Sunil Madathil)  
SIW BSF

  
(SI Vivek Kumar)  
CISF

**APPROVED/NOT APPROVED**

  
**( K K SHARMA ) IPS**  
DIRECTOR GENERAL  
BORDER SECURITY FORCE

## TRAIL DIRECTIVES FOR BINOCULAR WITH GRATICULE (8X &amp; 10X)

S.No	Parameter	Specification	Procedure Suggested for Trial	Result Expected/Desired
User will have a choice to opt for either 8X, 10X or both				
<b>8x with Graticule</b>				
01.	(i) Magnification	8X	The firm should submit national/international accredited Lab test report for this aspect. Check the national/international accredited lab test report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.	The magnification of binocular should be as per the requirement mentioned the QR's.
	(ii) Objective diameter	30 mm (Min)	The firm should submit national/international accredited Lab test report for this aspect. Check the national/international accredited lab test report for the same. In case of any doubt in the test report, the veracity of the same any be checked from the concerned lab.	The binocular's objective lens diameter should be as per the requirement mentioned the QR's.
	(iii) FOV	7° minimum	To be physically checked in the Lab as per the procedure	The binocular's field of view should be as per the requirement mentioned the QR's.
	(iv) Weight	Less than 800 grams	Measure the weight with weighing machine	Weight should be less than 800 grams.
<b>10 X with Graticule</b>				
02.	(i) Magnification	10X	The firm should submit national/international accredited Lab test report for this aspect. Check the national/international accredited lab test report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.	The magnification of binocular should be as per the requirement mentioned the QR's.




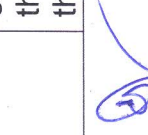









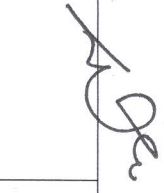
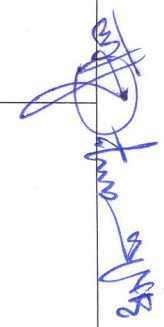

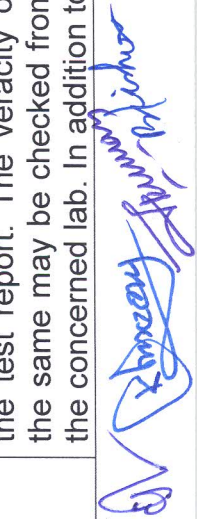

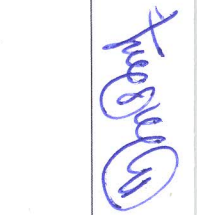




(ii)	Objective lens dia	50 mm (Max)	The firm should submit national/international accredited Lab test report for this aspect. Check the national/international accredited lab test report for the same. In case of any doubt in the test report, the veracity of the same any be checked from the concerned lab.	The binocular's objective lens diameter should be as per the requirement mentioned the QR's. The magnification of binocular should be as per the requirement mentioned the QRs.
(iii)	FOV	5°30' minimum	To be physically checked in the Lab as per the procedure	The binocular's field of view should be as per the requirement mentioned the QR's.
(iv)	Weight	1.5 kg (Max)	BOO to measure the weight with the help of weighing machine.	Weight should be less than 1.5 Kg.
<b>COMMON PARAMETERS APPLICATION TO ALL I.E (8x30 &amp; 10x50)</b>				
03.	Graticule Marking	Should be provided for range estimation.	To be physically checked by BOO.	Graticule marking for range estimation should be provided in the binocular.
04.	Closing focusing distance	20 meter or less.	To be physically checked by BOO.	The close focusing distance should be 20 meter or less.
05.	Diopter	± 4° diopter or better	The firm should submit national/international accredited Lab test report for this aspect. Check the national/international accredited lab test report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab. BOO to be physically check as well and to be physically checked in the lab as per the procedure.	The Diopter focusing should be ± 4° diopter or batter.
6	Inter pupillary distance	Between 56 to 74 mm.	The firm should submit national/international accredited Lab test report for this aspect. Check the national/international accredited lab test report for the same. In case of any doubt in the test report, the veracity of the same may be checked from	Inter Pupillary distance should be between 56 to 74 mm.

		the concerned lab.	The binocular should be as per the requirement mentioned the QR's. Prism should be BAK4 or better.
07.	Eye Relief	Adjustable eye cups for optimum eye relief	To be checked physically by the BOO.
08.	Prism	High quality scratch resistant.	The firm should submit national/international accredited lab test report for this aspect. Check the national/international accredited lab test report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.
09.	Optics	High quality scratch resistant.	The firm should submit national/international accredited lab test report for this aspect. Check the national/international accredited lab test report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.
10.	Optical coating	Fully multi coated optics for Anti Reflection and UV protection and HD water repellent lense coating.	Optical coating should be fully multi coated optics for Anti Reflection and UV protection.
11.	Construction	Binocular should be of Military grade and in commensuration with the Mil standard 810G/ JSS555555	The binocular should be as per the requirement mentioned the QR's.

			the certificate provided by the firm.
12.	Ingress protection	IP-65 or better	To be physically checked by BOO for resistant to waterjets for a minimum duration of 15 minutes with water volume 12.5 Ltr per minute pressure 30kpa at distance of 3 m.
13.	Non slippery body armour	Non slippery armour should be provided for better grip	Shall be checked physically.
14.	Covers for OG and eye piece	Suitable covers should be provided.	Shall be checked physically.
15.	Colour	Black or OG	Shall be checked physically.
16.	Nitrogen filling	Nitrogen should be filled in the body of binocular for moisture & fungus protection.	The firm should submit national/international accredited lab test report for this aspect. Check the national/international accredited lab test report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.
17.	Operating Temperature	-20 to +55 degree C.	The firm should submit national/international accredited lab test report for this aspect. Check the national/international accredited lab test report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.
18.	Storage Temperature	-30 to +60 degree C.	The firm should submit national/international accredited lab test report for this aspect. Check the national/international accredited lab test report for the same. In case of any doubt in the test report, the veracity of the same may be checked from the concerned lab.

The equipment should be of IP 65 or better Std.

The binocular should be as per the requirement mentioned the QR's.

Suitable covers for OG and eye piece should be provided with the Binocular.

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